

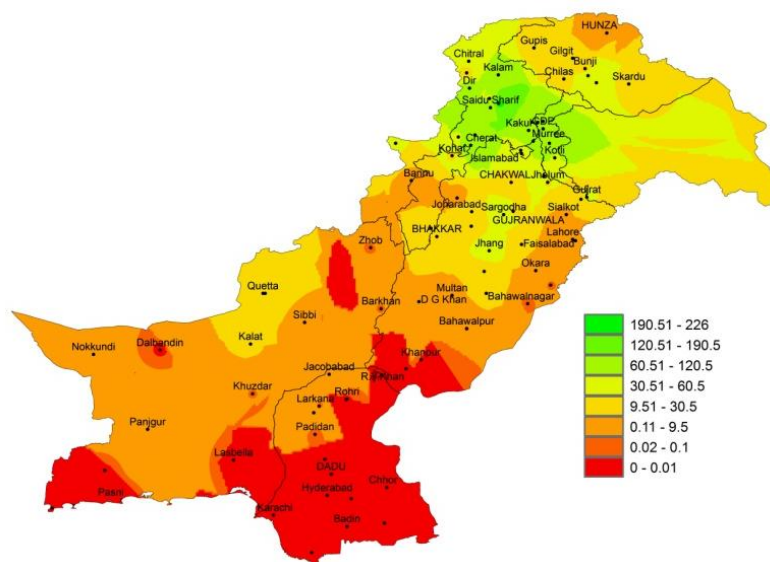
Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the
Previous Week (16th April to 22nd April, 2018)**



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Highlights of Past Weather (16th April to 22nd April, 2018)

Slightly above normal day temperatures reported from Balochistan and Sindh, while mixed trend was observed in the rest of the country.

Province wise distribution of rainfall reported as follows:

- Moderate to heavy 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: Saeeda Saleh (Assistant Meteorologist)

Past Weather of Provinces (16th April to 22nd April, 2018)

Punjab

Moderate to heavy rainfall observed at most places in Punjab during the week. Weekly maximum and minimum temperatures recorded as 31.7°C & 17.6°C respectively. For the recent week on average 139.1 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 52% and wind speed in the morning/evening recorded as 2.9/3.5 Knots. During the previous week the highest amount of rainfall was recorded as 105 mm at Murree & highest maximum temperature was recorded as 35.9°C at Rahim Yar Khan.

Sindh

Light rainfall observed at scattered places in Sindh during the week. Weekly maximum and minimum temperatures recorded as 38.8°C & 22.5°C respectively. For the recent week, on average 179.2 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 3.9/5.5 Knots. During the previous week the highest amount of rainfall was recorded as 1.0 mm at Moen-Jo-Daro & highest maximum temperature was recorded as 43.5°C at Nawabshah.

Khyber Pakhtunkhwa

Moderate to heavy rainfall observed at most places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 21.6°C & 10.4°C respectively. For the recent week on average 80.2 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 70% and wind speed in the morning/evening recorded as 1.1/2.1 Knots. During the previous week the highest amount of rainfall was recorded as 226 mm at Malamjabba & highest maximum temperature was recorded as 35.0°C at D.I.Khan.

Balochistan

Light rainfall observed at scattered places in Balochistan during the week. Weekly maximum and minimum temperatures recorded as 30.5°C & 16.5°C respectively. For the recent week on average 129.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 42% and wind speed in the morning/evening recorded as 2.2/6.4 Knots. During the previous week the highest amount of rainfall was recorded as 25 mm at Quetta & highest maximum temperature was recorded as 41.0°C at Lasbella.

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 19.8°C & 9.1°C respectively. For the recent week on average 83.3 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 1.3/2.4 Knots. During the previous week the highest amount of rainfall was recorded as 110.1 mm at Rawalakot & highest maximum temperature was recorded as 32.2°C at Kotli.

Past Weather for Major Agricultural Plains (16th**April to 22nd April, 2018)****Rawalpindi (Potohar region)**

Rainfall reported as 52.4 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.4/3.8 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 27.5°C & for the recent week 111.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/2.0 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 10.2 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 2.1/1.7 Oktas while, average relative humidity observed as 54%. Mean day time temperature recorded as 37.9°C & for the recent week 175.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.8/1.8 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.3/0.1 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 38.6°C & for the recent week 169.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.2/1.8 Knots.

Usta Muhammad (Eastern Balochistan)

Rainfall reported as Trace (not measureable) from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 1.0/0.9 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 37.9°C & for the recent week 175.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.2/2.6 Knots.

Quetta (Northern Baluchistan)

Rainfall reported as 11.0 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 3.0/2.1 Oktas while, average relative humidity observed as 41%. Mean day time temperature recorded as 22.7°C & for the recent week 73.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.5/2.3 Knots.

Past Weather for Sub-Regional Agricultural Plains (16th April to 22nd April, 2018)**Multan**

Rainfall reported as 5.70 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 1.5/2.6 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 32.7°C & for the recent week 144.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.3/6.6 Knots.

Lahore

Rainfall reported as 1.50 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 2.0/2.1 Oktas while, average relative humidity observed as 42%. Mean day time temperature recorded as 33.2°C & for the recent week 154.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.0/4.6 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 1.3/2.9 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 25°C & for the recent week 88.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.7/8.7 Knots.

Murree

Rainfall reported as 105 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 2.7/3.0 Oktas while, average relative humidity observed as 67%. Mean day time temperature recorded as 15.4°C & for the recent week 41.5 growing degree days accumulated by the

end of last week. Wind speed recorded in the morning/evening as 3.7/1.7 Knots.

D.I. Khan

Rainfall reported as 11.01 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 2.7/2.3 Oktas while, average relative humidity observed as 59%. Mean day time temperature recorded as 32.0 & for the recent week 138.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/1.1 Knots.

Peshawar

Rainfall reported as 53.81 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 4.3/5.1 Oktas while, average relative humidity observed as 71%. Mean day time temperature recorded as 26.6°C & for the recent week 110.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.3/2.6 Knots.

Kalam

Rainfall reported as 90.01 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 6.0/6.6 Oktas while, average relative humidity observed as 86%. Mean day time temperature recorded as 11.9°C & for the recent week 11.8 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 11.02 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 6.7/7.0 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded as 20.9°C & for the recent week 70.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.3 Knots.

Skardu

Rainfall reported as 14.21 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 6.0/6.6 Oktas while, average relative humidity observed as 41%. Mean day time temperature recorded as 18.5°C by the end of last week. Wind speed recorded in the morning/evening as 0.0/4.7 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 completed in irrigated Conditions.

Lower Sindh (Tandojam)

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

Land is being prepared for new crop.

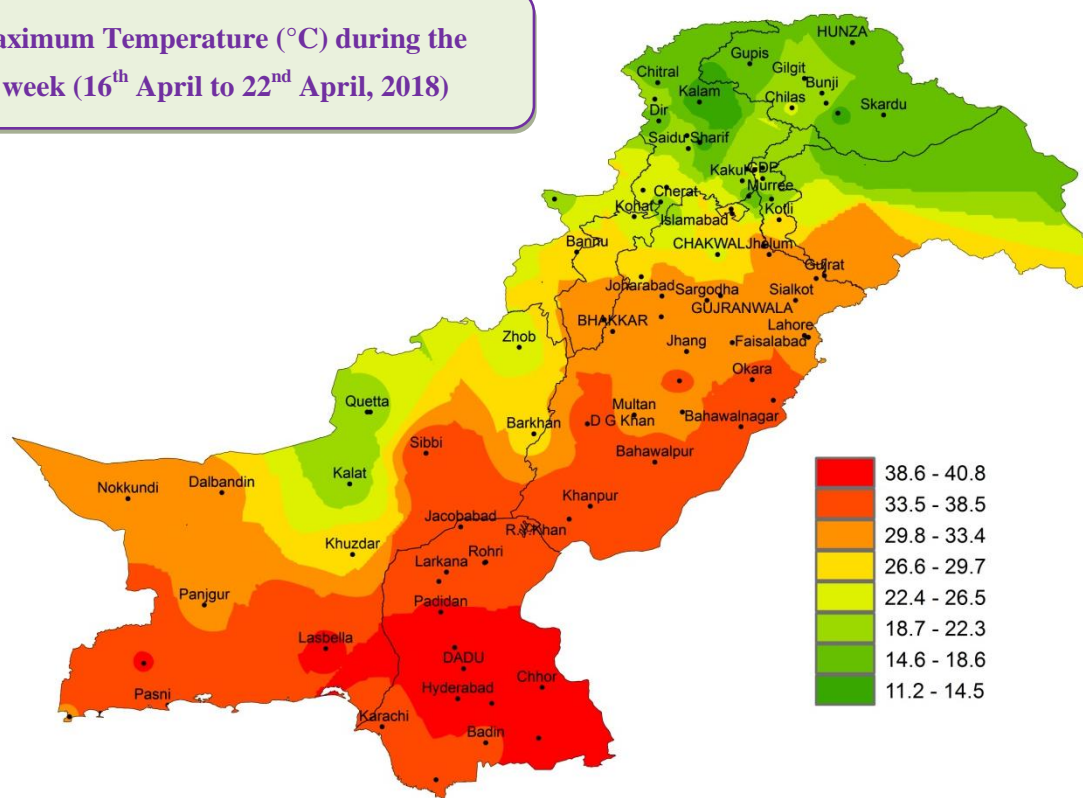
Northern Baluchistan (Quetta)

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

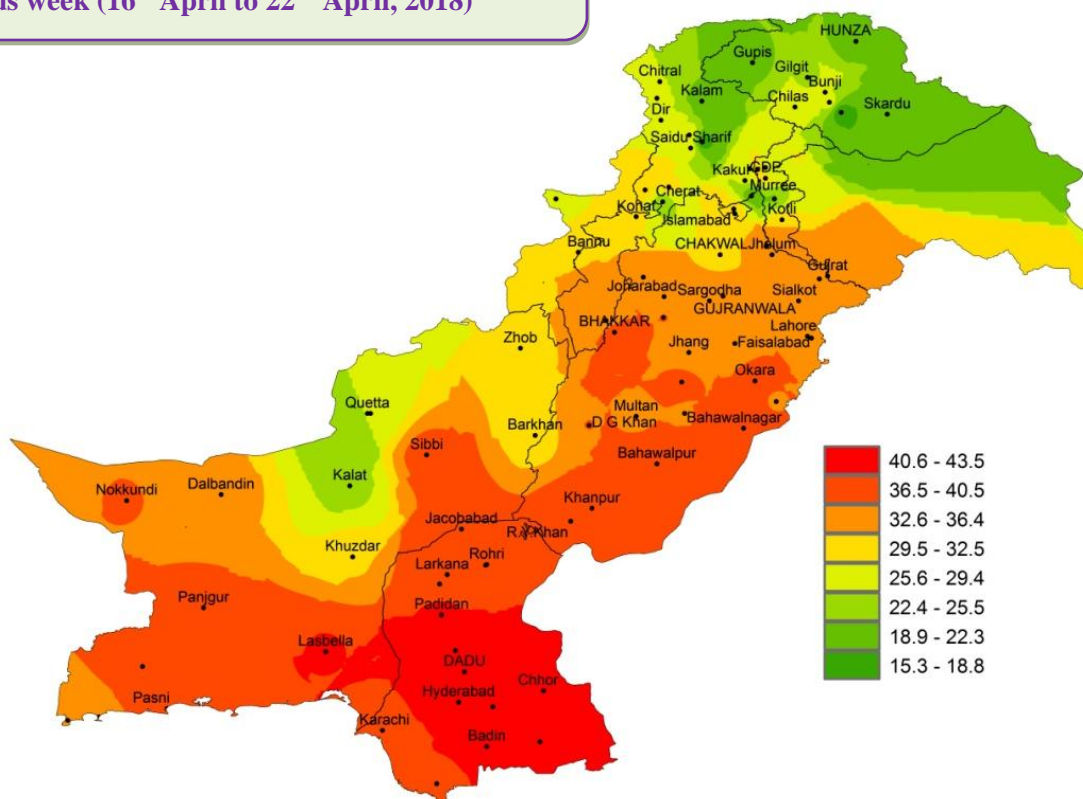
Eastern Baluchistan (Usta Muhammad)

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

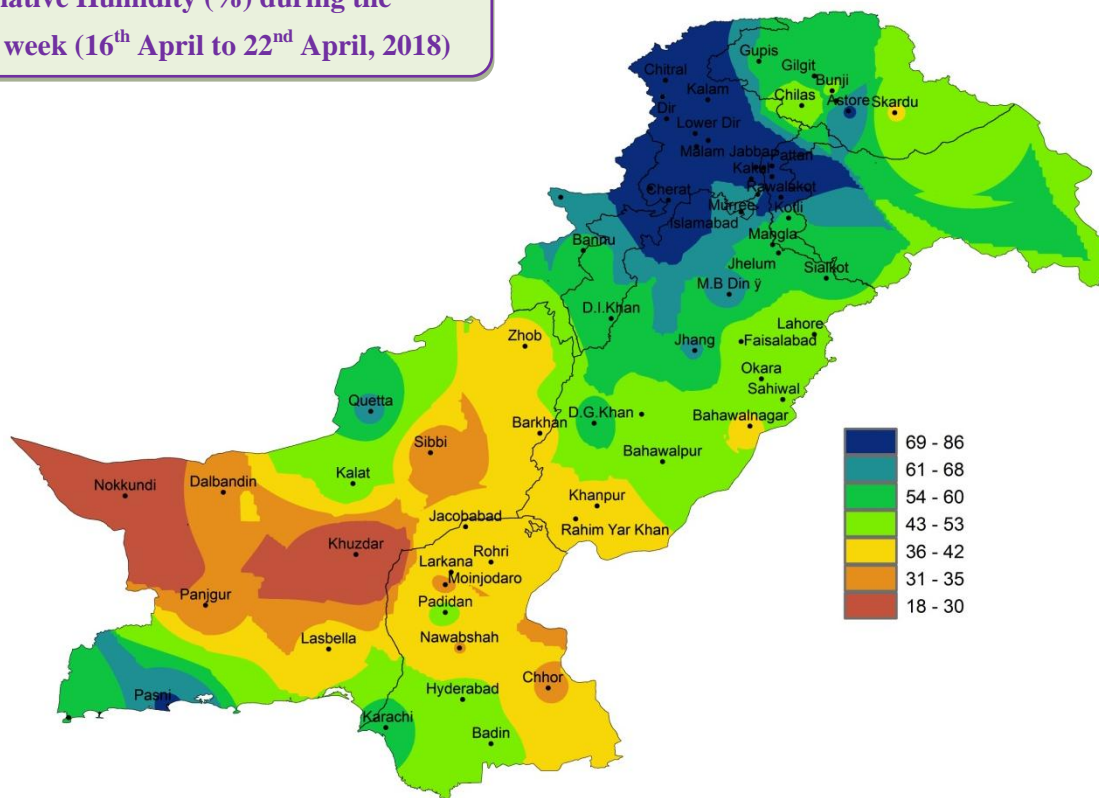
**Mean Maximum Temperature (°C) during the
Previous week (16th April to 22nd April, 2018)**



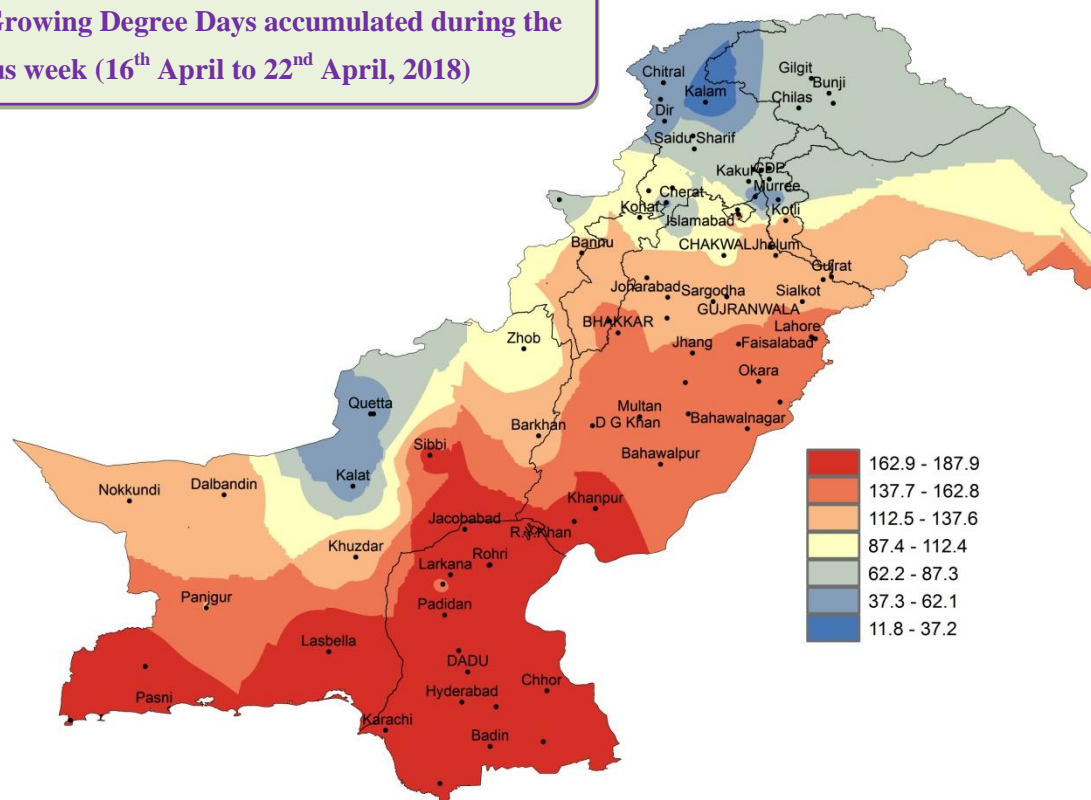
**Highest maximum Temperature (°C) during the
Previous week (16th April to 22nd April, 2018)**



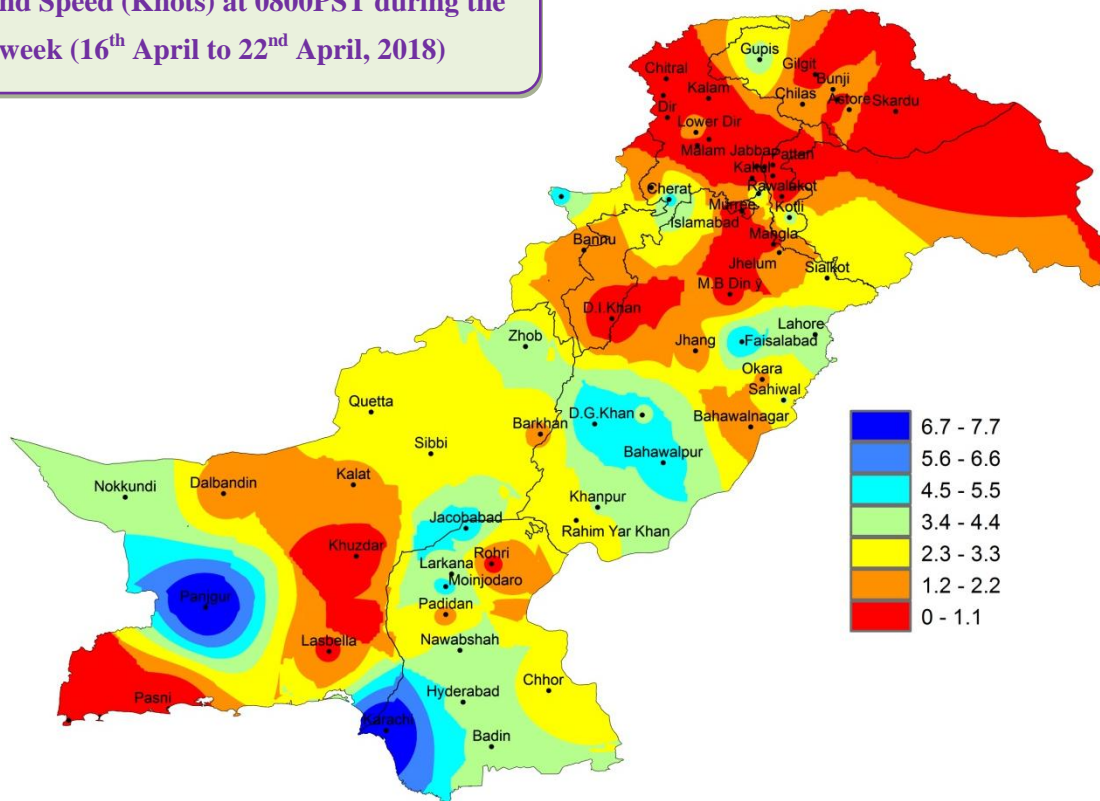
**Mean Relative Humidity (%) during the
Previous week (16th April to 22nd April, 2018)**



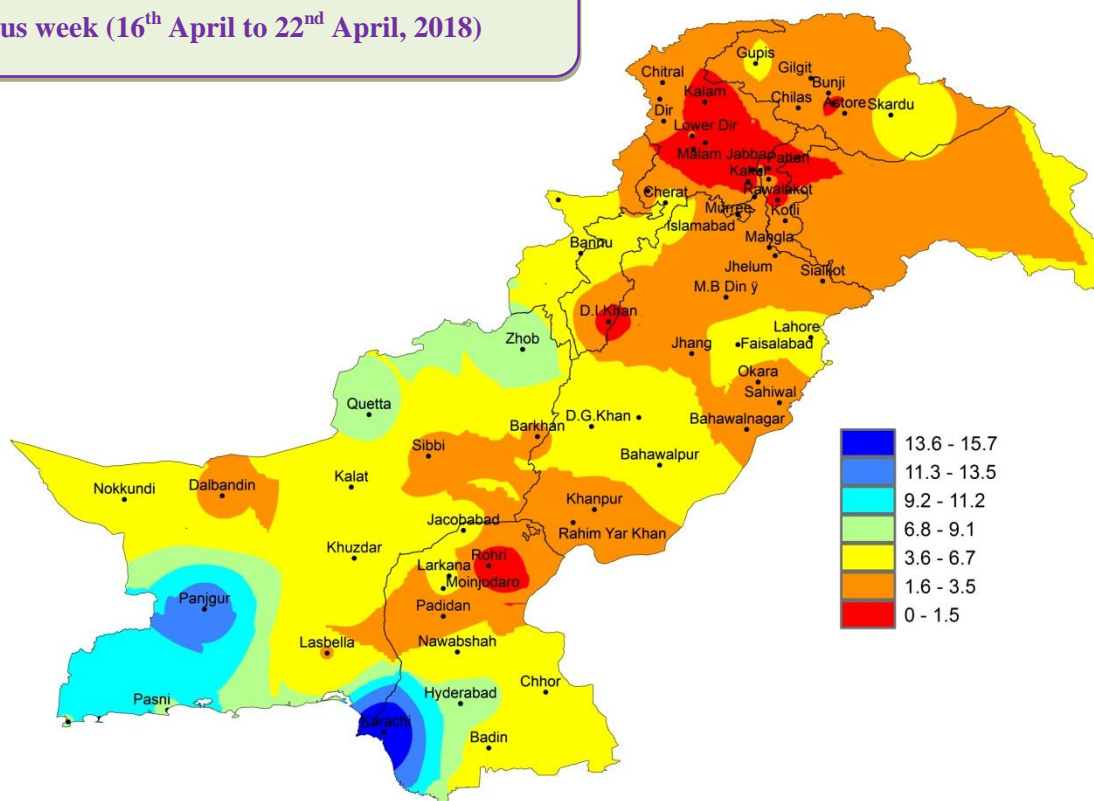
**Total Growing Degree Days accumulated during the
Previous week (16th April to 22nd April, 2018)**



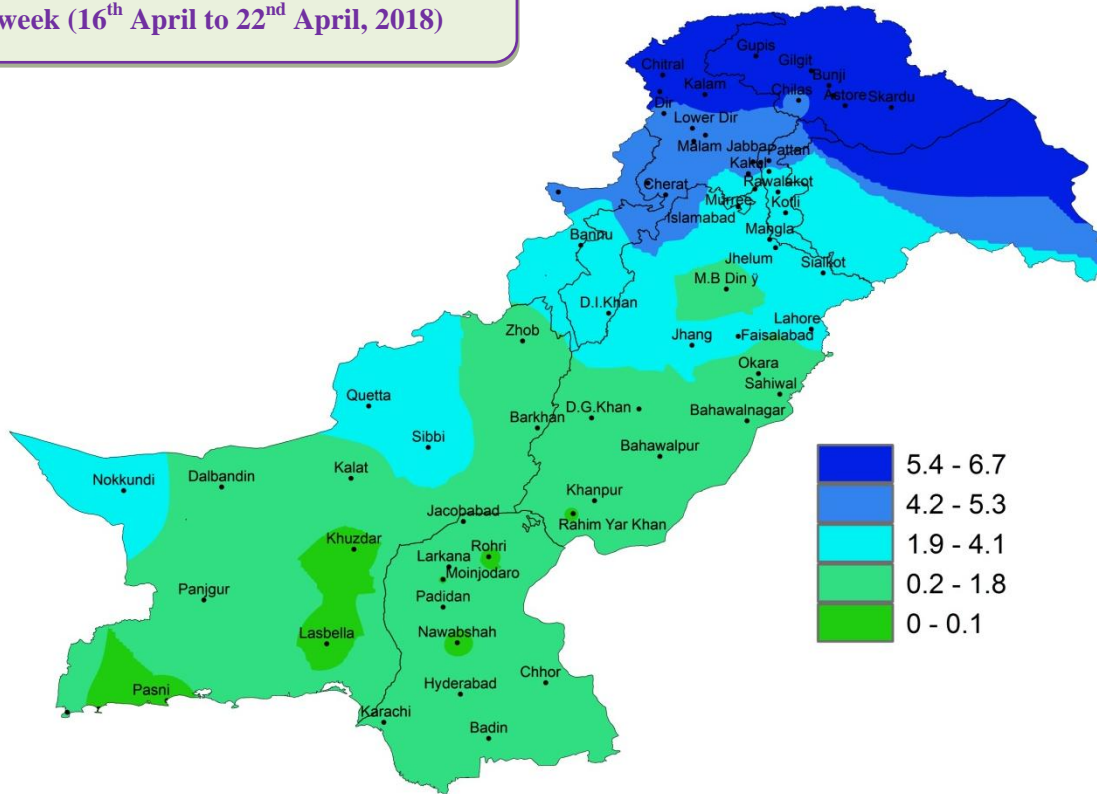
Mean Wind Speed (Knots) at 0800PST during the
Previous week (16th April to 22nd April, 2018)



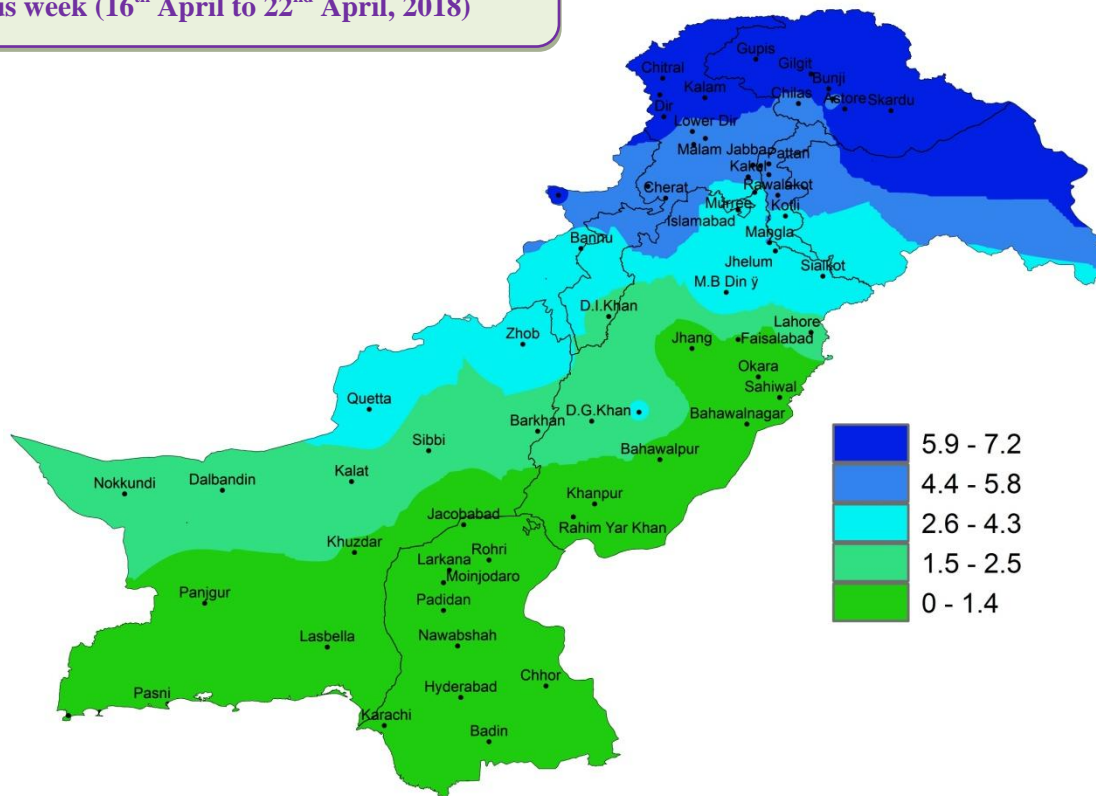
Mean Wind Speed (Knots) at 1700PST during the
Previous week (16th April to 22nd April, 2018)



Mean Cloudiness (Oktas) at 0800PST during the
Previous week (16th April to 22nd April, 2018)



Mean Cloudiness (Oktas) at 1700PST during the
Previous week (16th April to 22nd April, 2018)



Weekly Weather Advisory for Farmers**(23rd April to 29th April, 2018)**

Continental air would prevail over most parts of the country. However, a shallow westerly wave is likely to enter upper parts of the country on Friday night.

MONDAY**23-04-2018**

Mainly dry weather is expected in most parts of the country, while hot and dry in Sindh, Punjab, central/southern parts of Khyber-Pakhtunkhwa and Balochistan.

TUESDAY**24-04-2018**

Mainly dry weather is expected in most parts of the country, while hot and dry in Sindh, Punjab, central/southern parts of Khyber-Pakhtunkhwa and Balochistan.

WEDNESDAY**25-04-2018**

Mainly dry weather is expected in most parts of the country, while hot and dry in Sindh, Punjab, central/southern parts of Khyber-Pakhtunkhwa and Balochistan. However, rain-thunderstorm is expected at few places in Malakand division, upper FATA and Kashmir.

THURSDAY**26-04-2018**

Mainly dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at few places in Malakand division, Kashmir and Gilgit-Baltistan.

FRIDAY**27-04-2018**

Mainly dry weather is expected in most parts of the country. However, rain-thunderstorm is

expected at few places in Malakand, Hazara, Peshawar, Rawalpindi division, Islamabad, Gilgit-Baltistan and Kashmir.

SATURDAY**28-04-2018**

Mainly dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at few places in Kashmir and its adjoining hilly areas.

SUNDAY**29-04-2018**

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

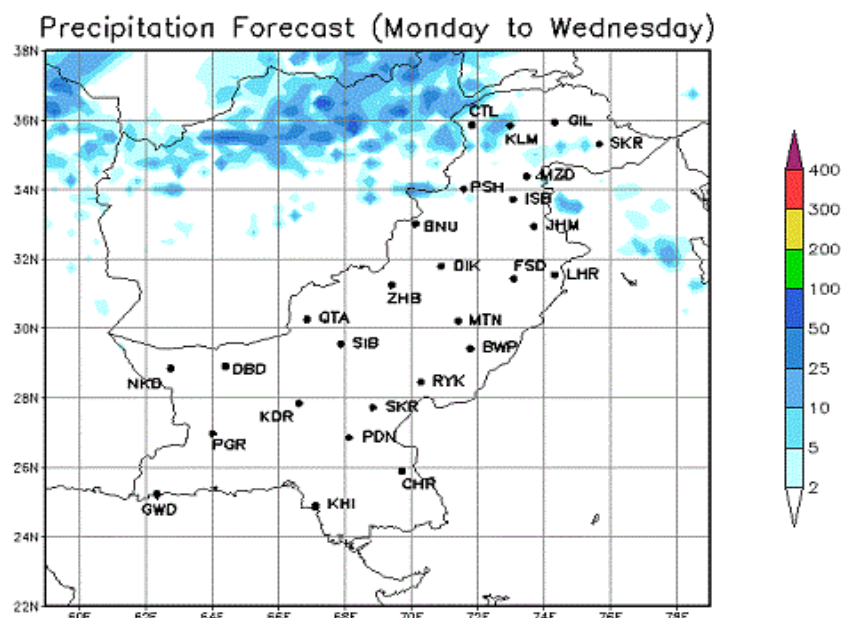
ADVISES FOR FARMERS

During the last week, moderate to heavy rainfall occurred in upper half of the country while light rainfall occurred at scattered places in the lower half of the country. Light rainfall in the northern parts of the country is expected, whereas hot and dry weather will prevail in rest of the country. Keeping in view the expected weather conditions following advises are suggested for farming community.

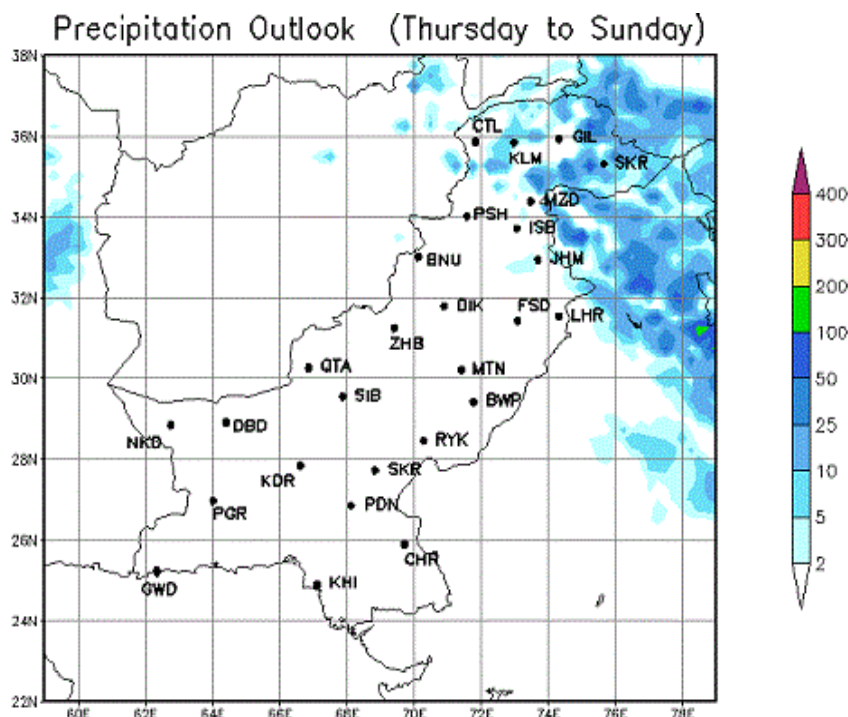
- Dust/sand storm may occur in areas of matured wheat crop, accordingly measures may be taken to preserve the grains and residue after harvesting.
- In areas where harvesting is awaiting may schedule the harvesting of wheat crop in accordance with the prevailing weather conditions.
- Farmers of irrigated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

Weather Outlook from 23rd April to 29th April, 2018

The forecast from 23rd to 25th April, 2018 shows that light to moderate rainfall is expected at isolated places in upper KP, GB and Kashmir. However, dry weather is expected elsewhere.



The outlook from 26th to 29th April, 2018 shows that light to moderate rainfall is expected in upper KP, FATA, GB, Kashmir. However, dry weather may prevail in rest of the country.



National Weather Data of Selected Cities (Weekly Data from 16th April to 22nd 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	12.4	15.3	***	70	47.50	6.4	6.1	1.2	2.0
Badin	37.7	41.5	178.3	43	0.00	0.8	1.4	4.0	5.1
Bahawalnagar	35.9	39.0	161.0	40	0.01	1.0	0.4	1.7	3.4
Bahawalpur	34.9	37.7	153.4	45	0.02	1.7	0.9	4.7	4.3
Balakot	22.1	28.5	81.7	71	73.00	4.5	5.0	0.3	0.7
Bannu	28.3	32.2	118.6	59	3.00	3.3	3.8	1.3	5.0
Barkhan	28.4	30.0	127.5	38	0.00	0.6	2.3	2.0	3.1
Bunji	21.7	25.6	85.1	50	9.80	6.7	7.3	2.3	2.0
Cherat	18.6	22.0	56.8	74	100.00	5.0	4.4	4.7	4.3
Chhor	40.5	42.7	183.4	34	0.00	0.7	0.6	2.7	5.4
Chilas	22.4	27.5	86.5	46	25.00	5.0	5.3	1.7	3.1
Chitral	18.3	25.5	58.6	78	38.00	6.0	6.1	0.3	2.6
D.G.Khan	34.7	36.5	155.6	57	8.00	1.3	2.3	5.3	6.6
D.I.Khan	32.0	35.0	138.0	59	11.01	2.7	2.3	0.7	1.1
Dalbandin	30.1	35.0	122.0	35	0.00	1.2	2.0	1.6	2.9
Dir	17.4	26.5	51.5	77	85.00	5.2	6.1	0.0	2.0
Drosh	19.7	25.6	55.5	67	20.90	5.5	6.6	0.0	3.1
Faisalabad	37.9	39.0	175.5	54	10.20	2.1	1.7	1.8	1.8
Garidopatta	22.3	29.5	82.7	70	62.60	3.5	5.3	0.0	2.0
Gawader	34.1	35.0	165.5	57	0.00	0.0	0.0	0.0	10.9
Gilgit	20.9	25.0	70.5	58	11.02	6.7	7.0	0.0	2.3
Gupis	15.1	20.5	***	59	14.00	6.5	6.3	3.7	3.7

Hyderabad	39.4	42.5	185.0	45	0.00	0.5	1.0	4.3	8.9
Islamabad	26.9	31.0	108.4	65	47.00	3.3	4.3	0.7	2.6
Jacobabad	37.9	40.0	172.8	37	1.00	1.0	0.6	5.0	4.3
Jhang	32.3	35.2	138.0	61	47.30	1.8	0.7	1.7	2.6
Jhelum	30.9	35.0	134.5	54	27.00	2.2	3.6	2.3	2.6
Jiwani	33.2	34.5	169.3	58	0.00	0.3	0.5	0.7	9.0
Kakul	20.6	26.0	68.9	68	98.00	4.3	4.7	0.0	1.1
Kalam	11.9	20.5	11.8	86	90.01	6.0	6.6	0.0	0.0
Kalat	20.0	23.0	56.5	45	11.00	0.5	2.1	2.0	4.0
Karachi	37.7	39.0	185.4	57	0.00	1.0	0.4	7.7	15.7
Khanpur	36.7	39.0	165.0	40	0.01	1.5	0.0	3.3	2.3
Khuzdar	29.4	31.5	131.5	18	0.00	0.0	1.4	0.3	4.6
Kotli	28.1	32.2	120.0	55	56.40	2.7	3.9	3.7	2.9
Lahore	33.2	36.2	154.6	42	1.50	2.0	2.1	4.0	4.6
Larkana	37.8	39.5	177.0	37	0.01	1.2	0.0	3.7	3.7
Lasbella	39.0	41.0	180.0	37	0.00	0.0	0.9	1.0	3.4
Lower Dir	22.5	29.5	87.8	73	45.00	4.7	5.7	2.3	1.7
M.B Din	30.9	35.5	134.4	62	28.00	1.3	3.6	0.7	1.7
Malam Jabba	11.0	15.0	***	70	226.00	5.0	5.3	0.0	0.0
Mangla	29.8	34.0	129.2	58	47.40	2.5	4.4	0.0	2.3
Mir Khani	20.8	28.0	64.4	59	63.00	5.8	5.1	0.3	1.0
Moinjodaro	38.2	40.0	158.2	33	1.00	0.0	0.0	5.0	3.7
Multan(PBO)	32.7	36.2	144.9	48	5.70	1.5	2.6	4.3	6.6
Murree	15.4	19.0	41.5	67	105.00	2.7	3.0	3.7	1.7
Muzaffarabad	22.9	31.5	83.3	70	99.00	4.7	4.7	1.0	2.3
Nawabshah	40.8	43.5	188.0	35	0.00	0.0	0.9	4.0	4.9

Nokkundi	31.7	36.5	136.5	18	0.21	2.3	2.0	4.3	5.1
Okara	34.0	37.2	153.1	48	2.00	1.0	0.3	2.0	2.3
Padidan	38.9	41.0	177.5	45	0.01	0.7	0.0	1.7	2.0
Panjgur	32.6	37.0	137.5	30	1.00	1.3	0.9	7.7	12.3
Parachinar	20.7	27.5	64.1	66	34.00	4.5	5.9	4.5	6.1
Pasni	34.6	37.5	173.5	69	0.00	0.0	0.0	0.0	9.0
Pattan	21.6	28.0	80.8	76	117.00	5.0	5.4	0.0	0.0
Peshawar	26.6	32.0	110.9	71	53.81	4.3	5.1	1.3	2.6
Quetta	22.7	33.0	73.4	41	11.00	3.0	2.1	2.5	2.3
Rahim Yar Khan	37.4	39.5	167.6	40	0.00	0.0	0.0	2.8	3.1
Rawalakot	18.5	22.0	55.3	79	110.10	3.2	5.6	0.3	1.1
Rawalpindi	27.5	31.0	111.6	68	52.40	3.4	3.8	1.1	2.0
Rohri	37.7	40.0	187.5	35	0.00	0.0	0.0	0.8	0.3
Sahiwal	33.8	36.2	150.7	48	0.02	1.2	0.0	3.3	3.1
Saidu Sharif	21.3	28.0	73.5	70	71.00	4.7	5.1	0.0	0.0
Sialkot	31.1	34.8	135.7	57	12.20	2.8	3.7	2.7	2.0
Sibbi	38.1	40.0	167.8	30	0.01	2.7	1.7	2.3	2.9
Skardu	18.5	21.6	***	41	14.21	6.0	6.6	0.0	4.7
Tandojam	38.6	41.0	169.8	39	0.00	0.3	0.1	1.2	1.8
Usta. Muhammad	37.5	39.0	175.5	39	0.01	1.0	0.9	1.2	2.6
Zhob	25.0	29.5	88.8	39	0.00	1.3	2.9	3.7	8.7

*** 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)