

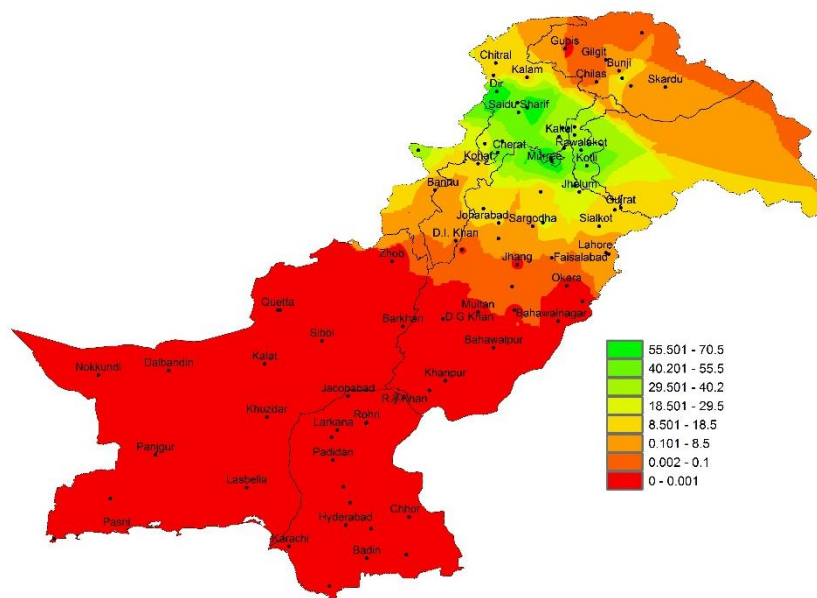
Weekly Weather and Crop Bulletin for Pakistan

**NATIONAL AGROMET CENTRE
PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the previous
Week (12th to 18th February, 2018)**



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Highlights of Past Weather (12th to 18th February, 2018)

Above normal night temperatures were observed all over the country.

Province wise rainfall distribution reported as follows:

- Light to moderate rainfall observed at most places in Punjab, KPK, GB and Azad Kashmir during the previous week.
- Dry weather reported from Sindh and Baluchistan 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 (12th to 18th February, 2018)

Punjab

Light to moderate rainfall observed at a most places in Punjab during the previous week. Weekly maximum and minimum temperatures recorded as 22.7°C & 8.6°C respectively. For the recent week on average 74 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 65% and wind speed in the morning/evening recorded as 1.3/2.8 knots. During the previous week highest amount of rainfall was reported as 62 mm at Islamabad, lowest minimum temperature was recorded as -3.8°C at Murree.

Balochistan

Dry weather reported from Balochistan during the week. Weekly maximum and minimum temperatures recorded as 24.3°C & 8.7°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 52% and wind speed in the morning/evening recorded as 1.0/4.4 knots. During the previous week lowest minimum temperature was recorded as -3.0°C at Kalat.

Khyber Pakhtunkhwa

Light to moderate rainfall observed at a most places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 15.9°C & 3.2°C respectively. For the recent week on average 40.5 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 0.9/2.2 knots. During the previous week highest amount of rainfall was reported as 71.0 mm at Dir & lowest minimum temperature was recorded as -6.0°C at Parachinar.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall observed at a most places in Gilgit-Baltistan and Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 14.1°C & 1.7°C respectively. For the recent week on average 33.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 57% and wind speed in the morning/evening recorded as 1.0/1.7 knots. During the previous week highest amount of rainfall was reported as 48.0 mm at Muzaffarabad and lowest minimum temperature was recorded as -6.0°C at Skardu.

Sindh

Dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 29.5°C & 12.3°C respectively. For the recent week, on average 109.1 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 0.8/3.3 knots. During the previous week lowest minimum temperature was recorded as 6.5°C at Moin-jo-Daro.

Past Weather for Major Agricultural Plains (12th to 18th February, 2018)

Rawalpindi (Potohar region)

Rainfall reported as 60.2 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.4/3.2 Oktas while average relative humidity observed as 73%. Mean night time temperature recorded as 6.3°C & for the recent week 58.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.4/0.8 knots.

Faisalabad (Central Punjab)

Rainfall reported as Trace (non measureable) from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 2.1/2.4 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as 9.9°C & for the recent week 82.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.5/1.9 knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while average relative humidity observed as 56%. Mean night time temperature recorded as 10.7°C & for the recent week 103.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.8 knots.

Usta Muhammad (Eastern Balochistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 3.0/2.0 Oktas while average relative humidity observed as 65%. Mean night time temperature recorded as 9.8°C & for the recent week 81.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.0 knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 3.9/3.7 Oktas while average relative humidity observed as 39%. Mean night time temperature recorded as 4.8°C & for the recent week

39.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.9/3.8 knots.

Past Weather for Sub-Regional Agricultural Plains (12th to 18th February, 2018)

Multan

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 2.0/1.9 Oktas while average relative humidity observed as 70%. Mean night time temperature recorded as 9.9°C & for the recent week 81.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/4.9 knots.

Lahore

Rainfall reported as 0.80 from Lahore during the week; however, cloudiness in the morning/evening recorded as 2.7/2.4 Oktas while average relative humidity observed as 61%. Mean night time temperature recorded as 11.5°C & for the recent week 85.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.3/2.9 knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 2.3/2.3 Oktas while average relative humidity observed as 51%. Mean night time temperature recorded as 3.6°C & for the recent week 37.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.8/4.1 knots.

Murree

Rainfall reported as 38.7 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 3.7/3.4 Oktas while average relative humidity observed as 63%. Mean night time temperature recorded as 1.1°C & for the recent week 3.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.2/1.4 knots.

D.I. Khan

Rainfall reported as Trace (non measureable) from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 2.5/1.4 Oktas

while average relative humidity observed as 68%. Mean night time temperature recorded as 9.8°C & for the recent week 80.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.4 knots.

Peshawar

Rainfall reported as 20.5 from Peshawar during the week; however, cloudiness in the morning/evening recorded as 3.5/4.9 Oktas while average relative humidity observed as 73%. Mean night time temperature recorded as 7.5°C & for the recent week 63.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/2.3 knots.

Kalam

Rainfall reported as 14.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 4.7/4.6 Oktas while average relative humidity observed as 72%. Mean night time temperature recorded as -3.3°C. Wind speed recorded in the morning/evening as 0.0/0.0 knots.

Gilgit

Rainfall reported as Trace (non measureable) during the week; However, cloudiness in the morning/evening recorded as 4.7/5.3 Oktas while average relative humidity observed as 46%. Mean night time temperature recorded as 2.0°C & for the recent week 27.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/1.4 knots.

Skardu

Rainfall reported as 0.02 mm from Skardu during the week; However, cloudiness in the morning/evening recorded as 4.8/6.1 Oktas while average relative humidity observed as 65%. Mean night time temperature recorded as -4.1°C. 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 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, Shooting stage in irrigated Conditions.

Lower Sindh (Tandojam)

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

Wheat (Sindh); Good, at Milk Maturity stage.

Northern Baluchistan (Quetta)

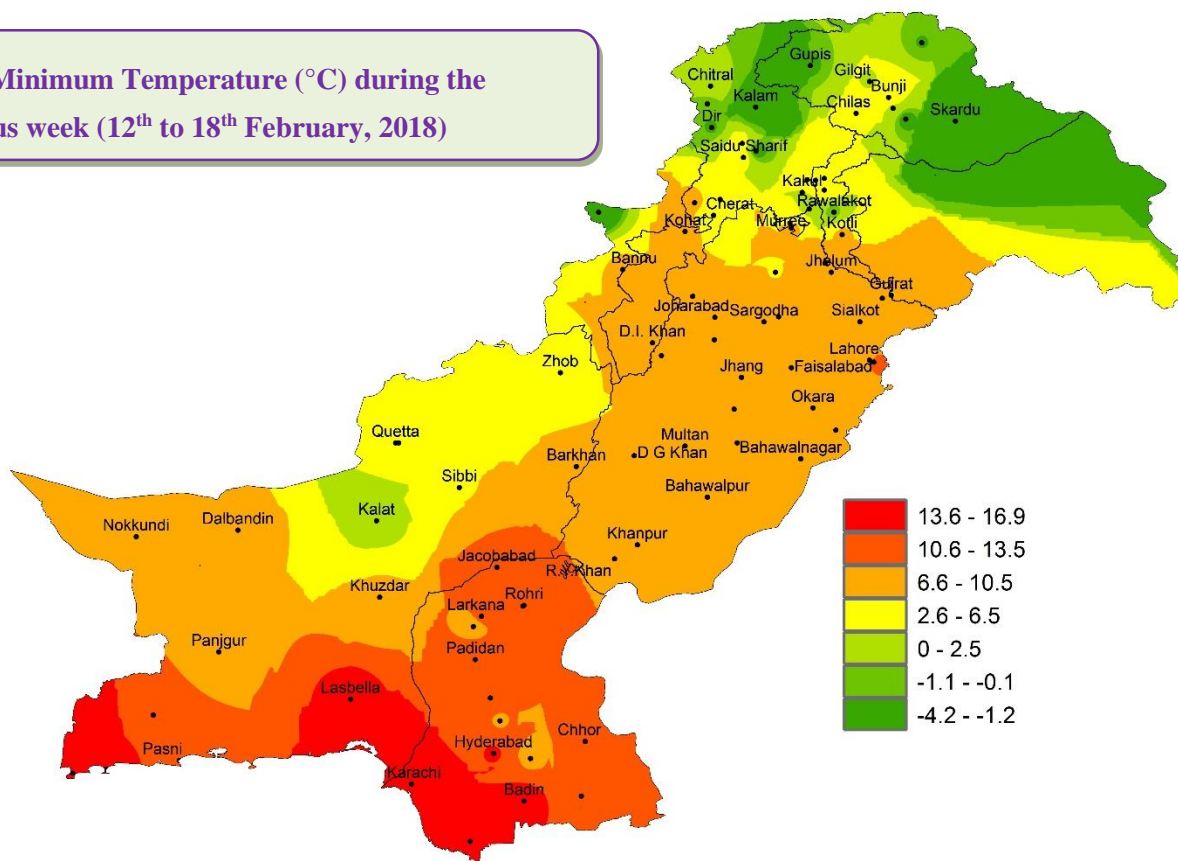
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

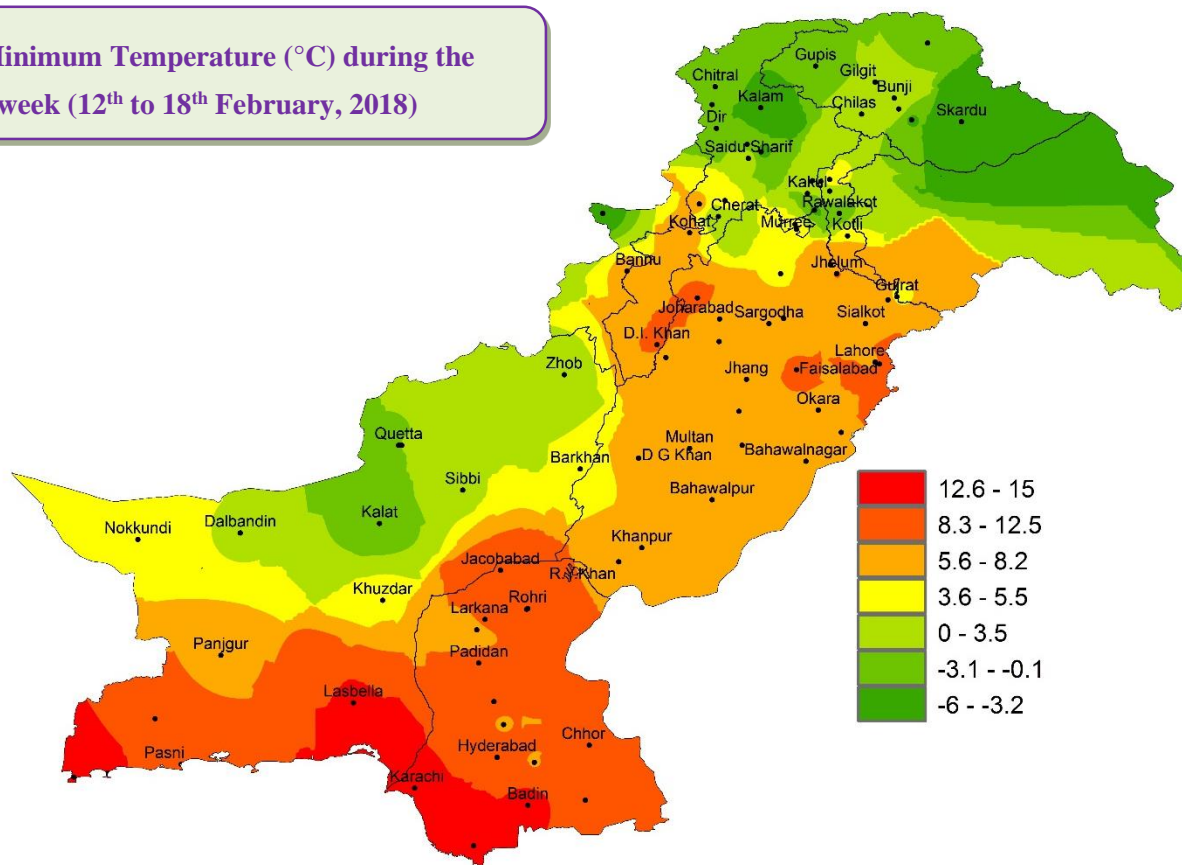
There is presently one crop grown in the fields of RAMC Usta Muhammad.

Wheat (Galaxy); Good, at Stem Extension.

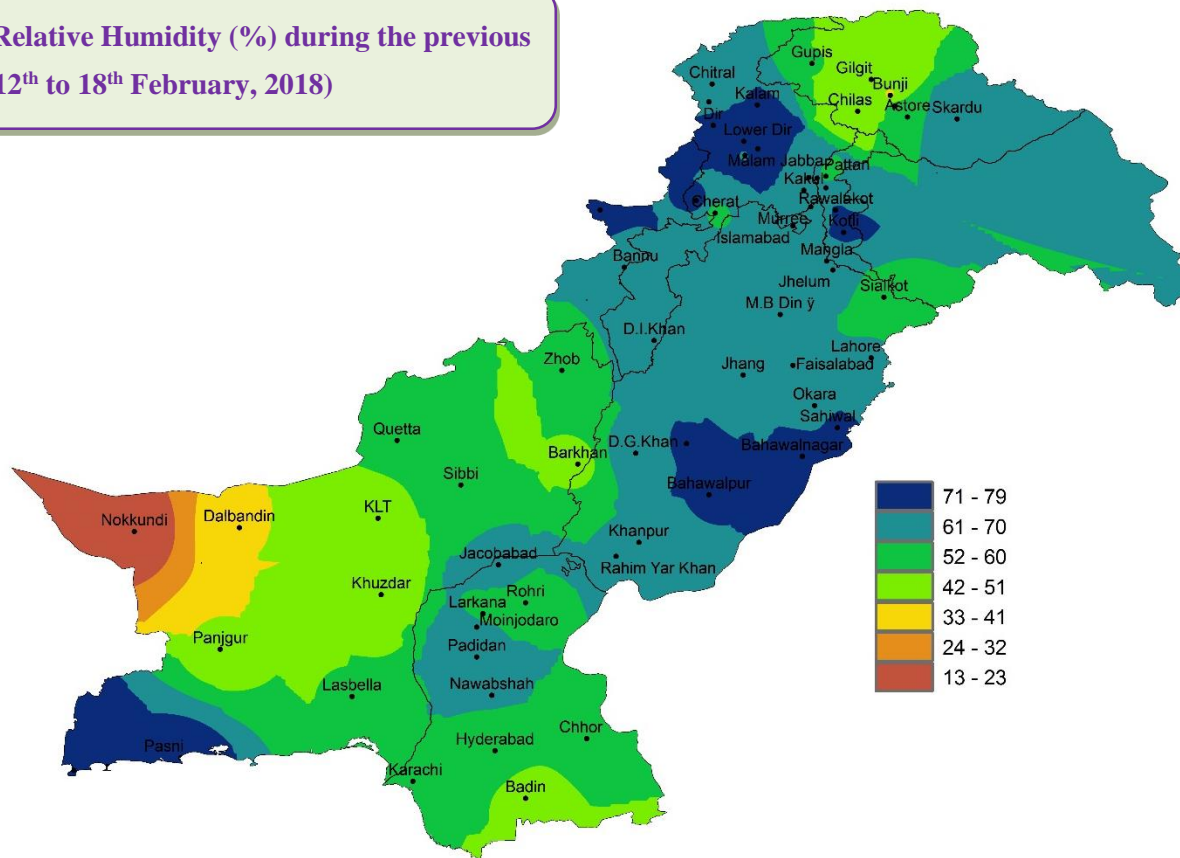
**Mean Minimum Temperature (°C) during the
Previous week (12th to 18th February, 2018)**



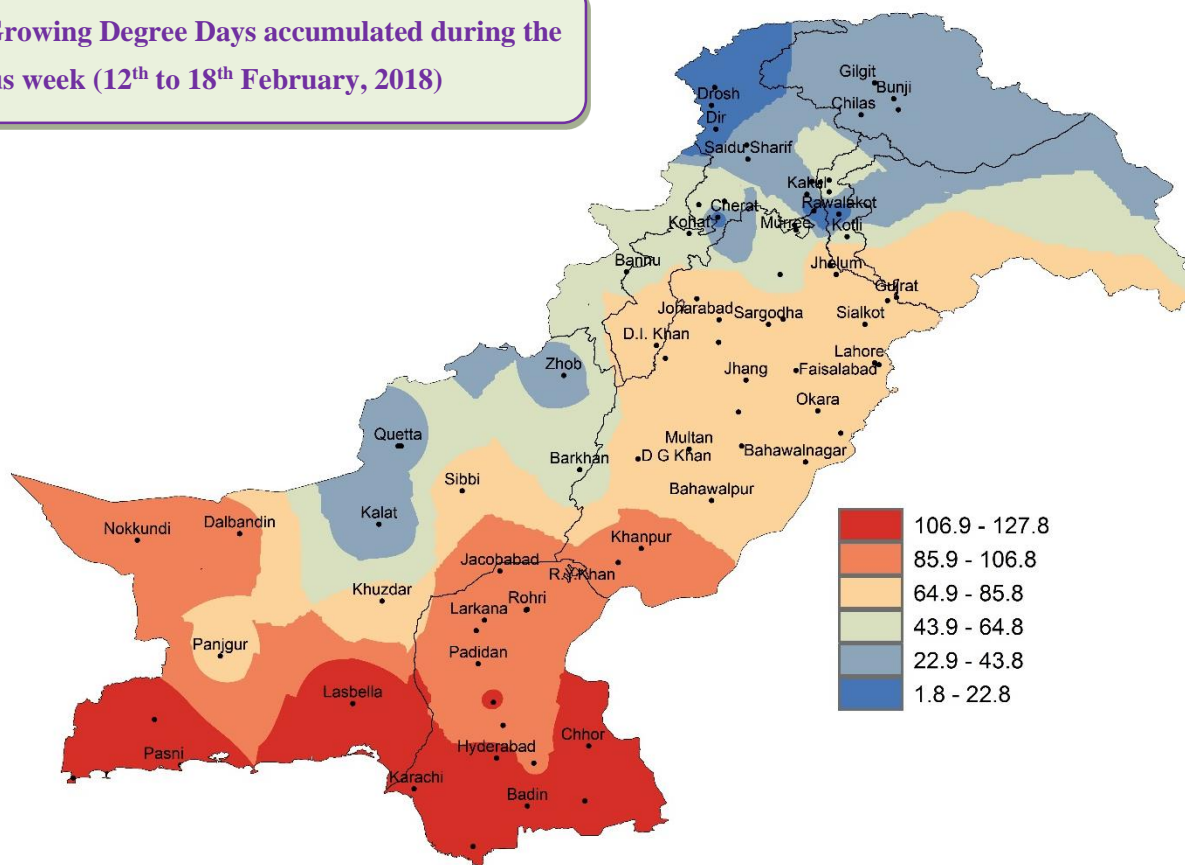
**Lowest Minimum Temperature (°C) during the
Previous week (12th to 18th February, 2018)**



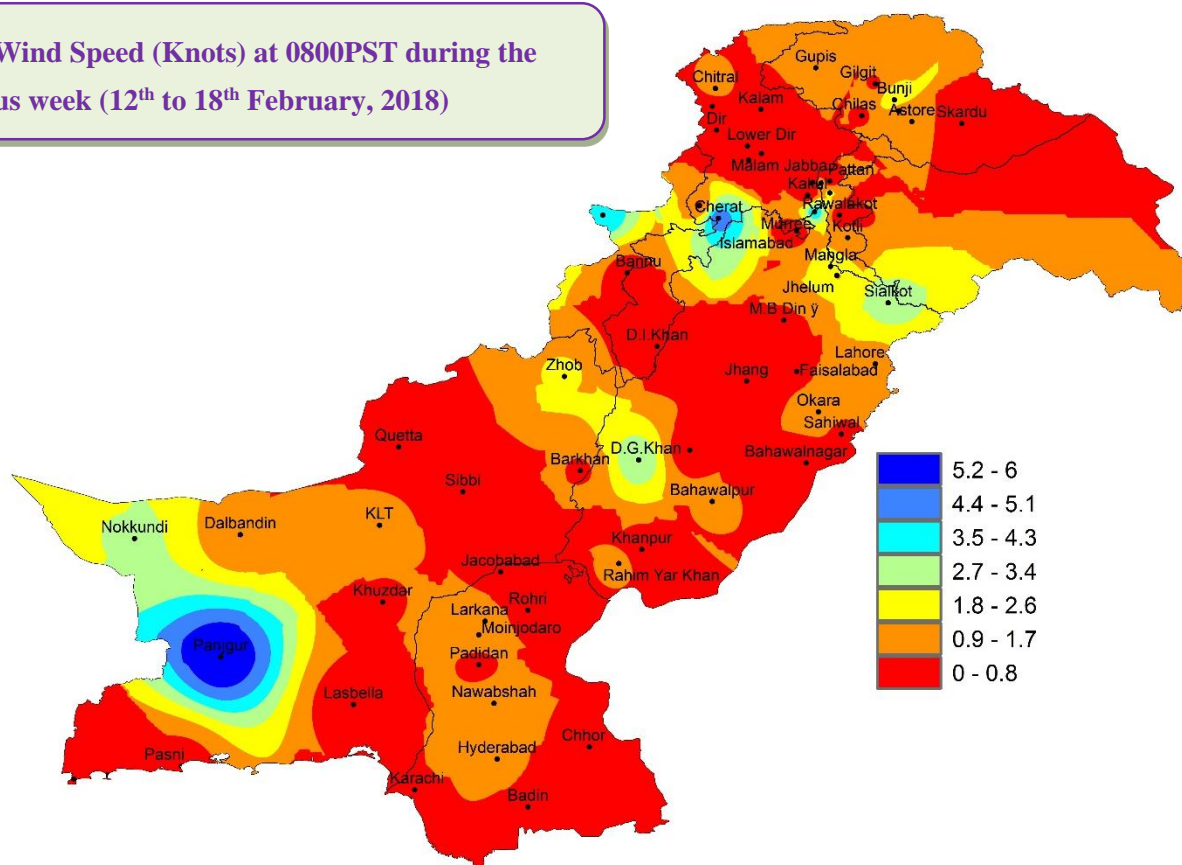
Mean Relative Humidity (%) during the previous week (12th to 18th February, 2018)



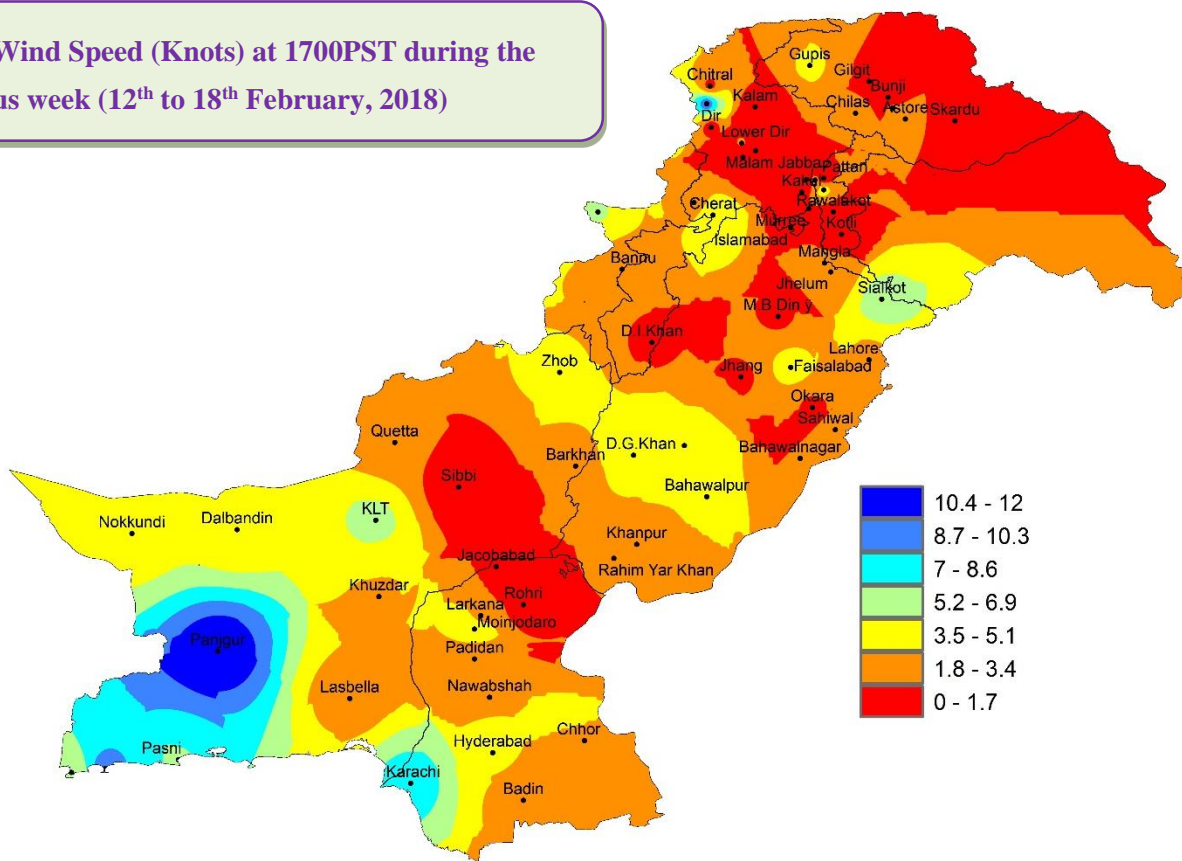
Total Growing Degree Days accumulated during the previous week (12th to 18th February, 2018)



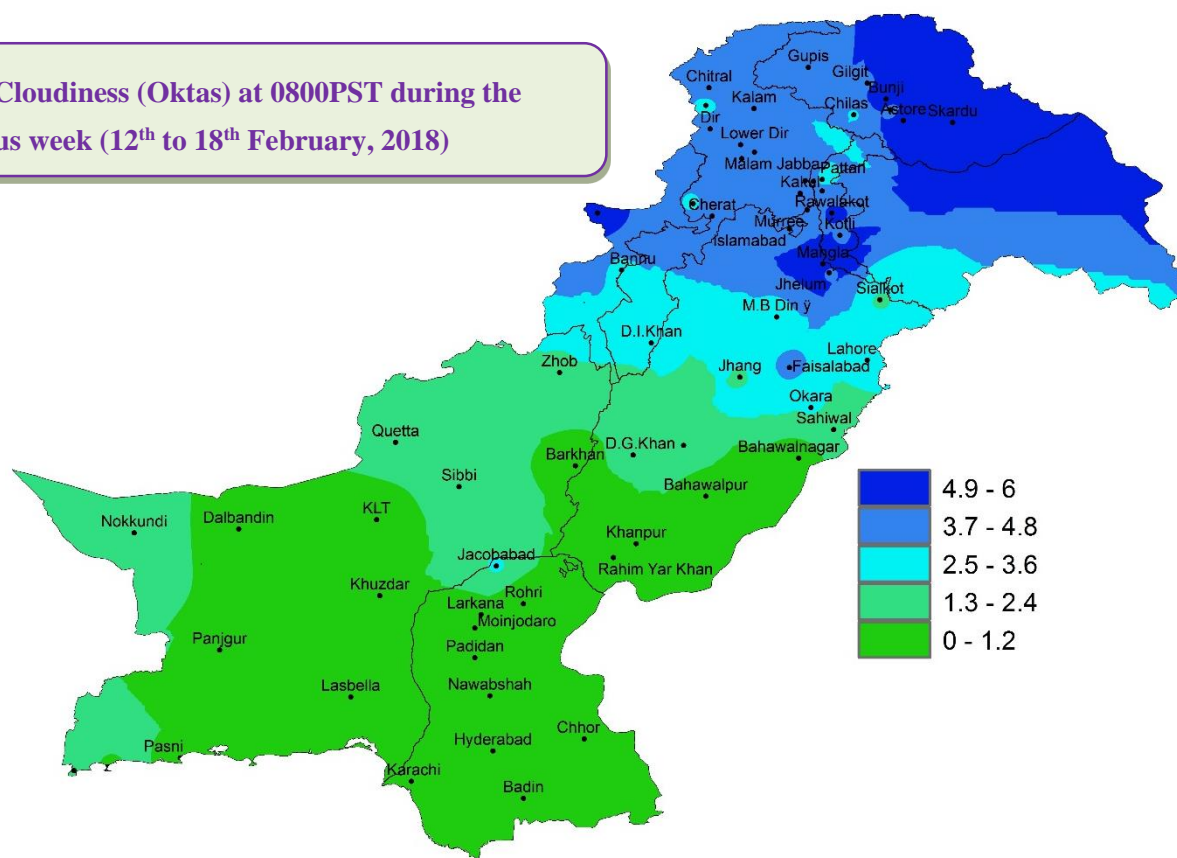
Mean Wind Speed (Knots) at 0800PST during the previous week (12th to 18th February, 2018)



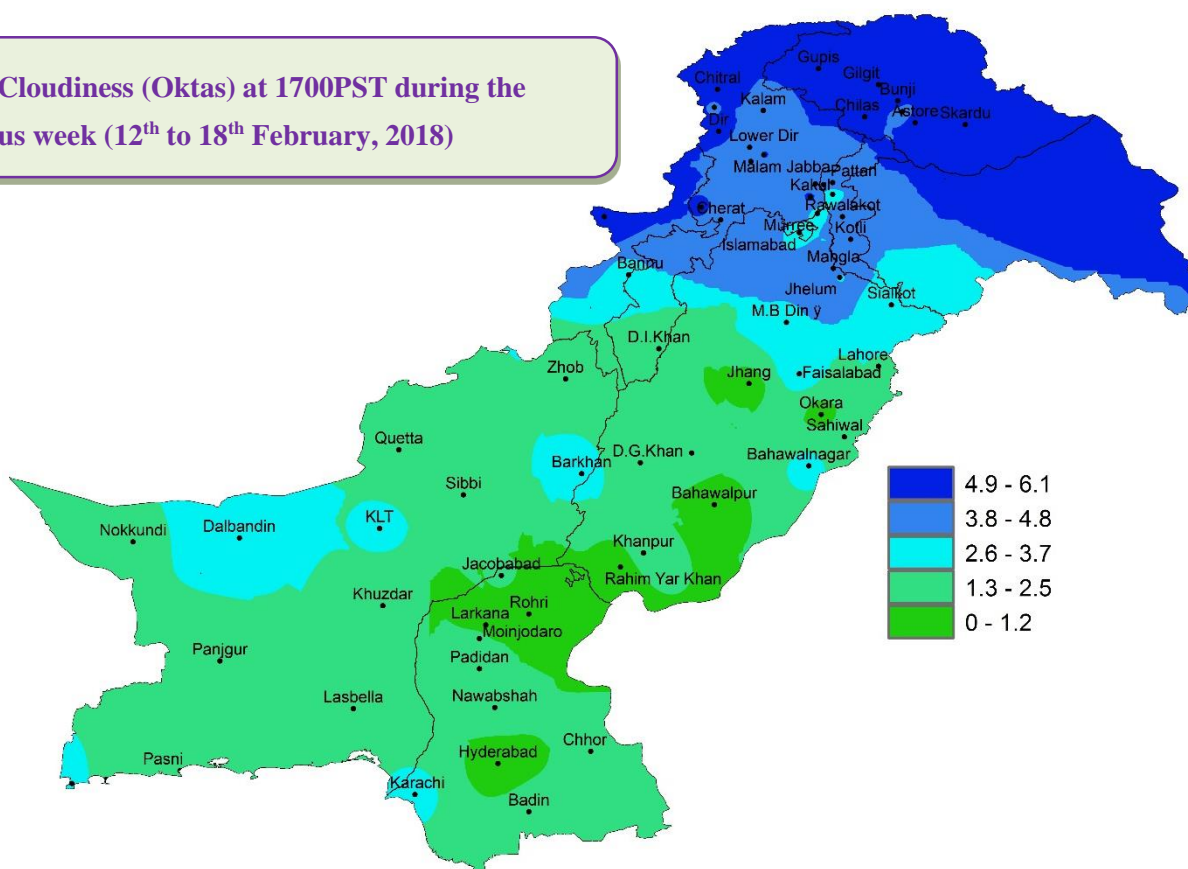
Mean Wind Speed (Knots) at 1700PST during the previous week (12th to 18th February, 2018)



Mean Cloudiness (Oktas) at 0800PST during the previous week (12th to 18th February, 2018)



Mean Cloudiness (Oktas) at 1700PST during the previous week (12th to 18th February, 2018)



Weekly Weather Advisory for Farmers
(19th to 25th February, 2018)

Continental air is prevailing over most parts of the country. A shallow westerly wave is likely to enter extreme northern parts of the country on Tuesday night. Another westerly wave is likely to enter in the country on Friday and may persist till Sunday.

MONDAY (19-02-2018)

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

TUESDAY (20-02-2018)

Mainly cold and dry weather is expected in most parts, while partly cloudy weather conditions in upper parts of the country. Light rain-thunderstorm (with snowfall over the hills) is expected at isolated places in Zhob, Malakand divisions, upper FATA and Gilgit-Baltistan during night.

WEDNESDAY (21-02-2018)

Mainly cold and dry weather is expected in most parts, while partly cloudy weather conditions in upper parts of the country. Light rain-thunderstorm is expected at isolated places in Malakand division and Gilgit-Baltistan.

THURSDAY (22-02-2018)

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

FRIDAY (23-02-2018)

Mainly cloudy weather conditions are expected in most parts of the country. However, rain-thunderstorm (with snowfall over the hills) is expected at scattered places in north Balochistan (Quetta, Zhob, Kalat divisions), while at isolated

places in Malakand division, Kashmir and Gilgit-Baltistan.

SATURDAY (24-02-2018)

Cloudy weather conditions with chances of rain-thunderstorm (with snowfall over the hills) is expected at scattered places in Khyber-Pakhtunkhwa, FATA, Islamabad, upper Punjab, Gilgit-Baltistan and Kashmir. Dry weather is expected elsewhere in the country.

SUNDAY (25-02-2018)

Rain-thunderstorm (with snowfall over the hills) is expected at scattered places in upper Khyber-Pakhtunkhwa, FATA, Islamabad, upper Punjab, Gilgit-Baltistan and Kashmir. Dry weather is expected elsewhere in the country.

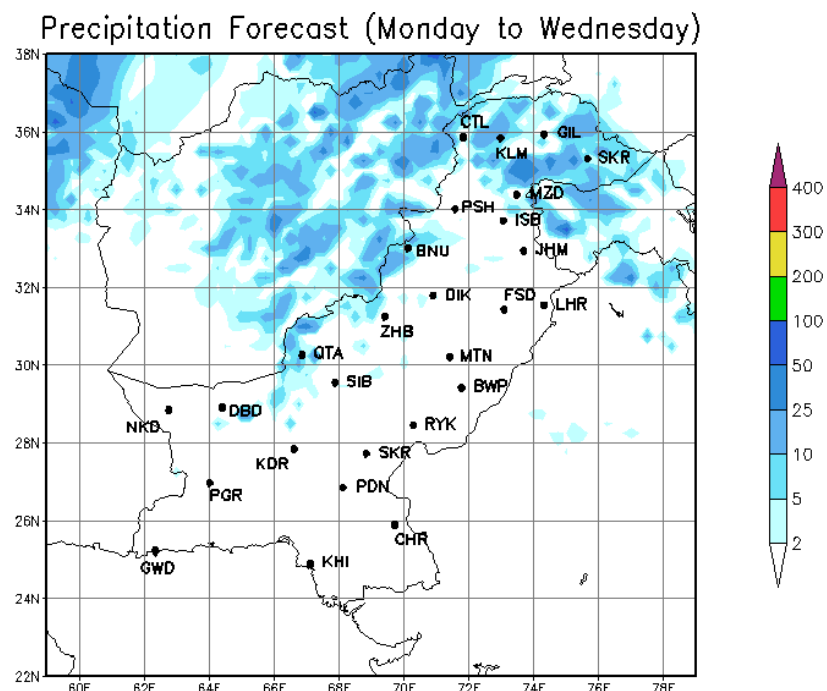
ADVISES FOR FARMERS

During the last week, rainfall was observed in most of the agricultural plains northern half of the country. In the next week this trend is likely to prevail in upper half of the country. Accordingly, following advises are suggested for the farming community.

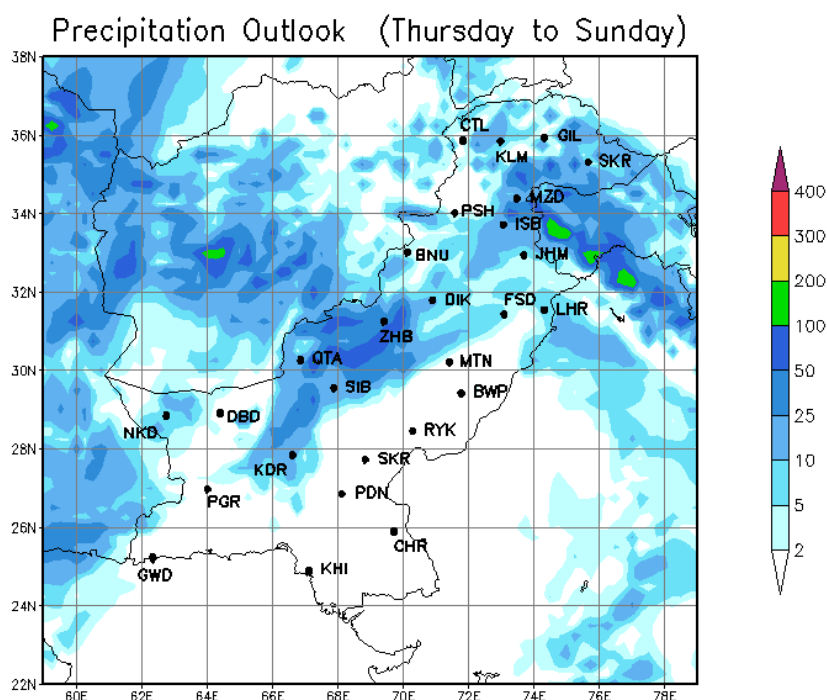
- Necessary precautionary measures may be taken to protect crops/nurseries from effects of extreme weather conditions.
- Crops/Nurseries may be irrigated according to the rainfall prediction.
- Removal of weeds from the fields may be ensured.

Weather Outlook from 19th to 25th February, 2018

The outlook for the period 19th to 21st February, 2018 shows that dry weather may prevail in most parts of the country, however light to moderate rainfall is expected in GB, Azad Kashmir, north western parts of Baluchistan and south western parts of KP.



The outlook for the period 25th to 28th January, 2018 shows that light to moderate rainfall is expected in Gilgit-Baltistan, Azad Kashmir, Baluchistan, KPK and Punjab



National Weather Data of Selected Cities (12th to 18th February, 2018)

Stations	Minimum 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	Lowest							
Astore	-2.5	-4.0	***	60	0.0	5.5	5.1	1.3	2.6
Badin	15.4	14.5	126.8	47	0.0	0.8	1.7	0.4	1.7
Bahawalnagar	9.8	7.0	82.0	71	0.0	0.7	2.7	0.3	1.7
Bahawalpur	9.3	7.9	83.5	71	0.0	0.5	0.7	1.0	3.7
Balakot	4.2	1.1	42.5	65	31.0	4.5	4.0	0.0	0.0
Bannu	7.5	6.5	61.0	65	4.0	3.5	3.4	0.3	2.0
Barkhan	7.6	3.5	53.0	48	0.0	0.7	2.9	0.7	2.3
Bunji	6.6	3.3	39.4	40	0.0	6.0	5.4	2.7	0.3
Cherat	2.3	0.0	12.5	58	46.0	4.3	4.6	5.0	5.1
Chhor	12.0	10.3	121.6	53	0.0	1.0	1.4	0.0	3.4
Chilas	3.9	2.0	40.8	42	0.0	3.5	5.0	0.7	2.6
Chitral	1.5	0.0	13.0	63	8.1	4.5	5.3	1.3	1.1
D.G.Khan	7.7	6.8	74.2	68	0.0	1.5	1.4	3.3	5.1
D.I.Khan	9.8	8.5	80.5	68	Tr.	2.5	1.4	0.0	1.4
Dalbandin	8.3	3.0	87.8	41	0.0	0.4	3.3	0.8	3.4
Dir	-1.4	-2.5	8.3	79	71.0	4.3	5.0	0.0	0.9
Drosh	-0.7	-3.0	1.8	61	11.6	3.2	4.7	0.0	9.9
Faisalabad	9.9	7.5	81.9	67	Tr.	2.1	2.4	0.5	1.9
Garidopatta	4.4	2.8	48.1	64	31.0	4.0	3.1	2.0	4.3
Gawader	15.0	13.0	118.5	71	0.0	1.2	2.0	0.0	9.4
Gilgit	2.0	0.0	27.8	46	0.0	4.7	5.3	0.7	1.4
Gupis	-1.5	-2.0	***	52	0.0	4.2	5.0	1.3	3.7

Hyderabad	13.9	11.0	118.0	57	0.0	0.6	0.6	1.2	4.0
Islamabad	6.1	4.0	56.5	64	62.0	4.5	3.6	0.0	1.7
Jacobabad	11.9	10.0	97.5	64	0.0	2.5	1.4	0.0	1.1
Jhang	8.5	7.2	78.9	68	0.0	2.3	0.9	0.0	1.4
Jhelum	9.3	8.3	77.2	64	18.1	4.5	3.6	1.7	2.0
Jiwani	16.9	15.0	118.0	77	0.0	1.5	3.0	0.0	5.1
Kakul	2.3	0.0	28.0	68	34.0	4.2	5.0	0.0	1.1
Kalam	-3.3	-5.5	***	72	14.0	4.7	4.6	0.0	0.0
Kalat	0.7	-3.0	23.5	50	0.0	0.0	2.7	1.3	5.7
Karachi	15.6	14.5	127.8	59	0.0	0.7	2.7	0.7	8.0
Khanpur	8.9	6.5	88.5	63	0.0	0.3	1.9	0.3	2.0
Khuzdar	7.3	5.0	69.0	42	0.0	1.0	1.4	0.7	3.1
Kotli	7.4	5.6	65.2	71	43.0	4.7	3.9	1.0	1.4
Lahore	11.5	10.0	85.3	61	0.8	2.7	2.4	1.3	2.9
Larkana	10.7	9.5	95.8	56	0.0	1.0	0.6	1.3	2.9
Lasbella	14.9	13.0	125.9	53	0.0	0.8	1.9	0.0	2.0
Lower Dir	3.6	-1.0	38.3	71	49.0	3.7	4.4	0.7	2.0
M.B Din	9.7	8.0	79.5	69	24.0	3.2	3.6	0.7	1.4
Malam Jabba	-3.0	-4.5	***	78	70.0	3.8	4.9	0.0	0.0
Mangla	8.6	7.5	72.8	65	40.0	6.0	4.7	2.3	1.7
Mir Khani	1.8	1.4	30.9	54	27.0	4.2	4.3	1.0	2.0
Moinjodaro	10.1	6.5	95.9	65	0.0	0.3	1.6	1.7	4.9
Multan(PBO)	9.9	7.8	81.2	70	0.0	2.0	1.9	0.0	4.9
Murree	1.1	-3.8	3.5	63	38.7	3.7	3.4	4.2	1.4
Muzaffarabad	4.6	1.5	46.4	62	48.0	4.3	3.9	1.3	2.6
Nawabshah	11.7	9.0	110.0	60	0.0	0.5	1.9	1.7	3.4

Nokkundi	10.4	5.5	98.8	13	0.0	2.3	2.3	2.7	3.7
Okara	9.2	8.0	81.0	68	0.0	2.5	0.9	1.3	1.4
Padidan	11.2	9.0	101.5	65	0.0	0.7	1.9	0.3	1.7
Panjgur	8.5	7.0	80.0	44	0.0	1.0	1.6	6.0	12.0
Parachinar	-4.2	-6.0	***	73	34.0	5.5	5.9	4.2	5.3
Pasni	12.3	10.5	113.3	77	0.0	1.2	1.6	0.3	6.7
Pattan	5.9	5.0	49.5	57	25.0	3.0	4.6	0.0	0.0
Peshawar	7.5	6.4	63.4	73	20.5	3.5	4.9	0.7	2.3
Quetta	4.8	0.6	39.7	39	0.0	3.9	3.7	2.9	3.8
Rahim Yar Khan	9.9	7.2	94.8	61	0.0	0.3	0.6	1.0	2.0
Rawalakot	-1.0	-3.0	8.1	70	42.3	5.0	4.4	0.0	0.3
Rawalpindi	6.3	5.2	58.8	73	60.2	3.4	3.2	0.4	0.8
Rohri	11.6	10.0	101.8	58	0.0	0.0	0.0	0.0	0.3
Sahiwal	9.2	8.0	76.0	70	0.0	1.6	1.9	0.7	2.0
Saidu Sharif	4.3	2.3	37.6	69	44.0	3.8	4.1	0.0	0.0
Sialkot	7.7	7.5	66.1	54	15.4	2.3	3.1	3.0	6.4
Sibbi	6.3	3.0	82.2	53	0.0	2.0	1.7	0.0	0.0
Skardu	-4.1	-6.0	***	65	Tr.	4.8	6.1	0.0	0.0
Tandojam	10.7	8.5	103.0	56	0.0	0.0	0.0	0.0	0.8
Usta.M	9.8	8.0	81.8	65	0.0	3.0	2.0	0.0	1.0
Zhob	3.6	1.5	37.5	51	0.0	2.3	2.3	1.8	4.1

*** Shows that data was not available.

*Trace shows not-measurable data

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 2014-2012)