

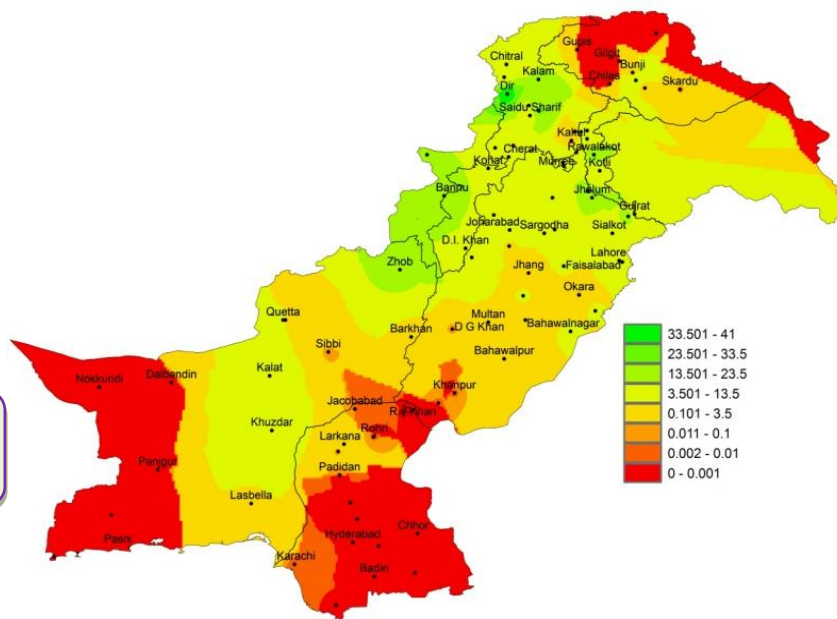
Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the previous
Week (5th February to 11th February, 2018)**



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Highlights of Past Weather (5th February to 11th February, 2018)

Below normal night time temperatures were observed in most parts of Punjab, KP and Balochistan. Mix trend was observed in Sindh, GB and Azad Jammu & Kashmir during the previous week.

Province wise rainfall distribution reported as follows:

- Light to moderate rainfall observed at many places in Punjab and Khyber Pakhtunkhwa during the previous week.
- Light to moderate rainfall observed at few places in Sindh, Balochistan and Gilgit-Baltistan and Azad Jammu & Kashmir 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 (5th February to 11th February, 2018)

Punjab

Light to moderate rainfall observed at many places in Punjab during the week. Weekly maximum and minimum temperatures recorded as 23.1°C & 5.3°C respectively. For the recent week on average 64.2 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 57% and wind speed in the morning/evening recorded as 1.2/3.0 knots. During the previous week highest amount of rainfall was reported as 17.1 mm at Sialkot & lowest minimum temperature was recorded as -0.5°C at Murree.

Balochistan

Light to moderate rainfall observed at few places in Balochistan during the week. Weekly maximum and minimum temperatures recorded as 21.3°C & 4.5°C respectively. For the recent week on average 55.3 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 1.4/3.8 knots. During the previous week highest amount of rainfall was reported as 18.0 mm at Zhob & lowest minimum temperature was recorded as -10.0°C at Quetta.

Khyber Pakhtunkhwa

Light to moderate rainfall observed at many places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 17.6°C & 1.7°C respectively. For the recent week on average 35.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 53% and wind speed in the morning/evening recorded as 1.0/2.3 knots. During the previous week highest amount of rainfall was reported as 41.0 mm at Dir & lowest minimum temperature was recorded as -7.0°C at Kalam.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall observed at few places in Kashmir and Gilgit-Baltistan during the week. Weekly maximum and minimum temperatures recorded as 14.2°C & -0.6°C respectively. For the recent week on average 32.3 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 0.6/1.4 knots. During the previous week highest amount of rainfall was reported as 20.3 mm at Rawalakot & lowest minimum temperature was recorded as -8.0°C at Skardu.

Sindh

Light to moderate rainfall observed at few places in Sindh during the week. Weekly maximum and minimum temperatures recorded as 27.5°C & 10.0°C respectively. For the recent week, on average 95.8 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 1.5/3.5 knots. During the previous week highest amount of rainfall was reported as 1.0 mm at Larkana & lowest minimum temperature was recorded as 5.8°C at Daddu.

Past Weather for Major Agricultural Plains **(5th February to 11th February, 2018)**

Rawalpindi (Potohar region)

Rainfall reported as 8.6 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.0/2.9 Oktas while average relative humidity observed as 58%. Mean night time temperature recorded as 2.9°C & for the recent week 53.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.7 knots.

Faisalabad (Central Punjab)

Rainfall reported as 1.6 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.3/1.4 Oktas while average relative humidity observed as 65%. Mean night time temperature recorded as 5.1°C & for the recent week 89.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/1.3 knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.4/1.4 Oktas while average relative humidity observed as 54%. Mean night time temperature recorded as 9.8°C & for the recent week 89.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.2/1.4 knots.

Usta Muhammad (Eastern Balochistan)

Rainfall reported as Trace (not measureable) from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.4/0.0 Oktas while average relative humidity observed as 58%. Mean night time temperature recorded as 7.6°C & for the recent week 77.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.2/0.2 knots.

Quetta (Northern Baluchistan)

Rainfall reported as 4.3 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 3.6/3.4 Oktas while average relative humidity observed as 43%. Mean night time

temperature recorded as -0.6°C & for the recent week 2.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.2/3.2 knots.

Past Weather for Sub-Regional Agricultural Plains (5th February to 11th February, 2018)

Multan

Rainfall reported as 3.1 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 3.3/2.6 Oktas while average relative humidity observed as 61%. Mean night time temperature recorded as 7.2°C & for the recent week 71.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.0/6.0 knots.

Lahore

Rainfall reported as 6.2 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 1.7/2.9 Oktas while average relative humidity observed as 54%. Mean night time temperature recorded as 8.3°C & for the recent week 76.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/3.4 knots.

Zhob

Rainfall reported as 18.0 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 3.0/3.4 Oktas while average relative humidity observed as 47%. Mean night time temperature recorded as 1.3°C & for the recent week 17.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/5.4 knots.

Murree

Rainfall reported as 6.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 1.7/2.7 Oktas while average relative humidity observed as 44%. Mean night time temperature recorded as 0.7°C & for the recent week 6.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/1.4 knots.

D.I. Khan

Rainfall reported as 11.7 mm from D.I. Khan during the week; however, cloudiness in the

morning/evening recorded as 1.7/1.9 Oktas while average relative humidity observed as 59%. Mean night time temperature recorded as 5.4°C & for the recent week 66.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/1.7 knots.

Peshawar

Rainfall reported as 10.1 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.3/4.0 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as 6.6°C & for the recent week 61.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/2.0 knots.

Kalam

Rainfall reported as 16.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.7/6.4 Oktas while average relative humidity observed as 71%. Mean night time temperature recorded as -5.2°C. Wind speed recorded in the morning/evening as 0.0/0.6 knots.

Gilgit

Dry weather reported from Gilgit during the week; However, cloudiness in the morning/evening recorded as 4.5/5.6 Oktas while average relative humidity observed as 49%. Mean night time temperature recorded as -3.1°C & for the recent week 6.6 growing degree days accumulated by the end of last week.. Wind speed recorded in the morning/evening as 0.0/1.1 knots.

Skardu

Dry weather reported from Skardu during the week; However, cloudiness in the morning/evening recorded as 4.7/6.1 Oktas while average relative humidity observed as 61%. Mean night time temperature recorded as -5.8°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, Tillering completed in irrigated Conditions.

Lower Sindh (Tandojam)

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

Wheat (Sindh); Good, at Flowering stage in irrigated Conditions

Northern Baluchistan (Quetta)

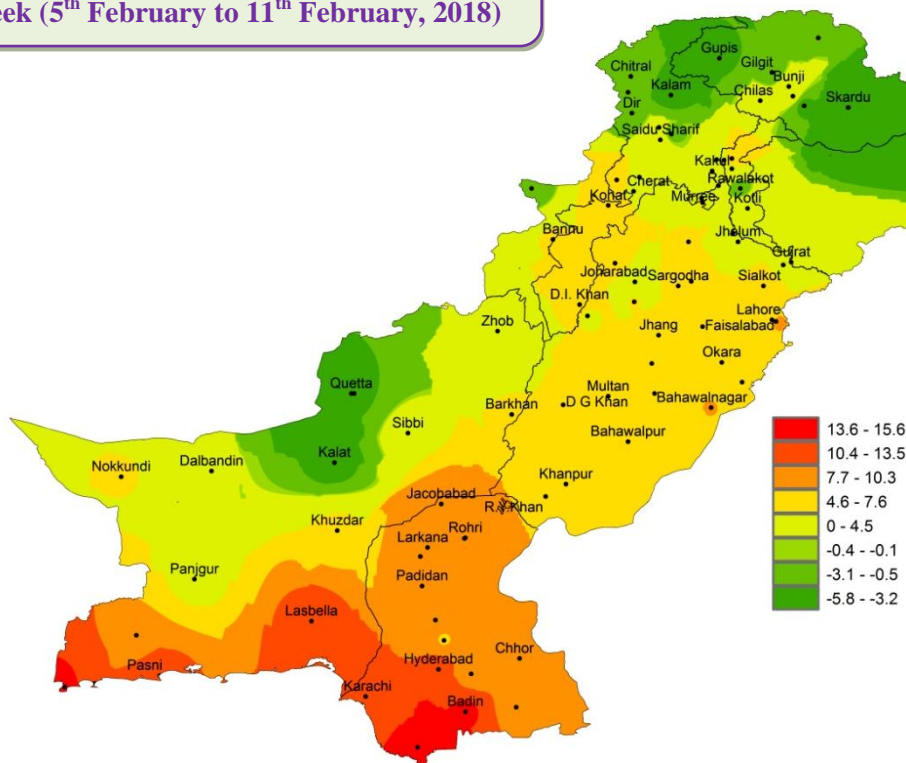
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

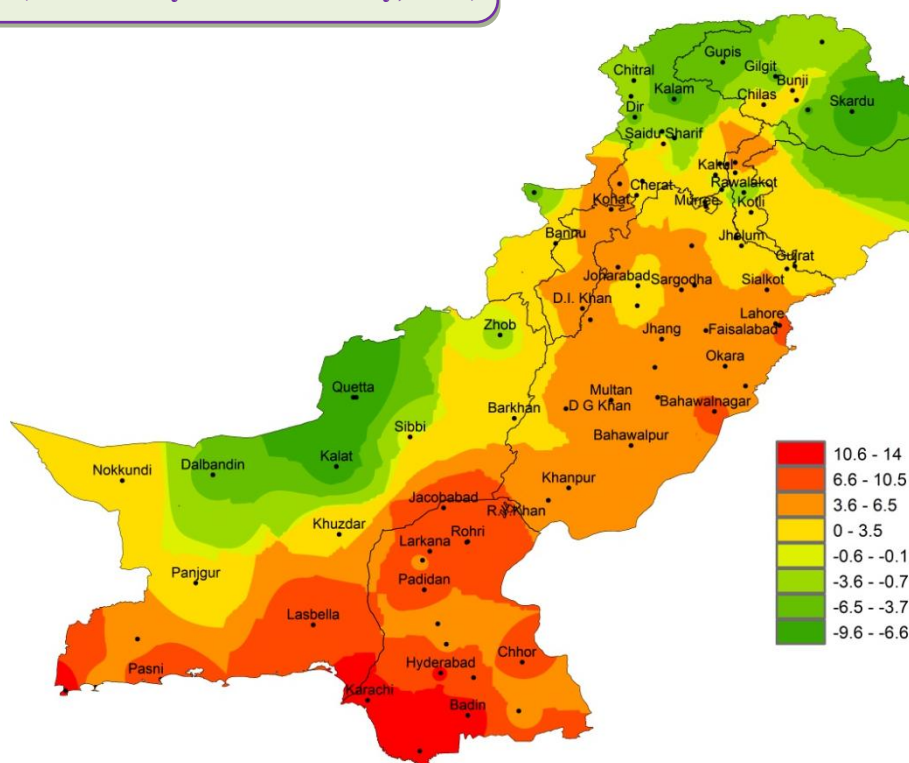
There is presently one crop grown in the fields of RAMC Usta Muhammad.

Wheat (Galaxy); Good, at Stem Extension stage in irrigated Conditions

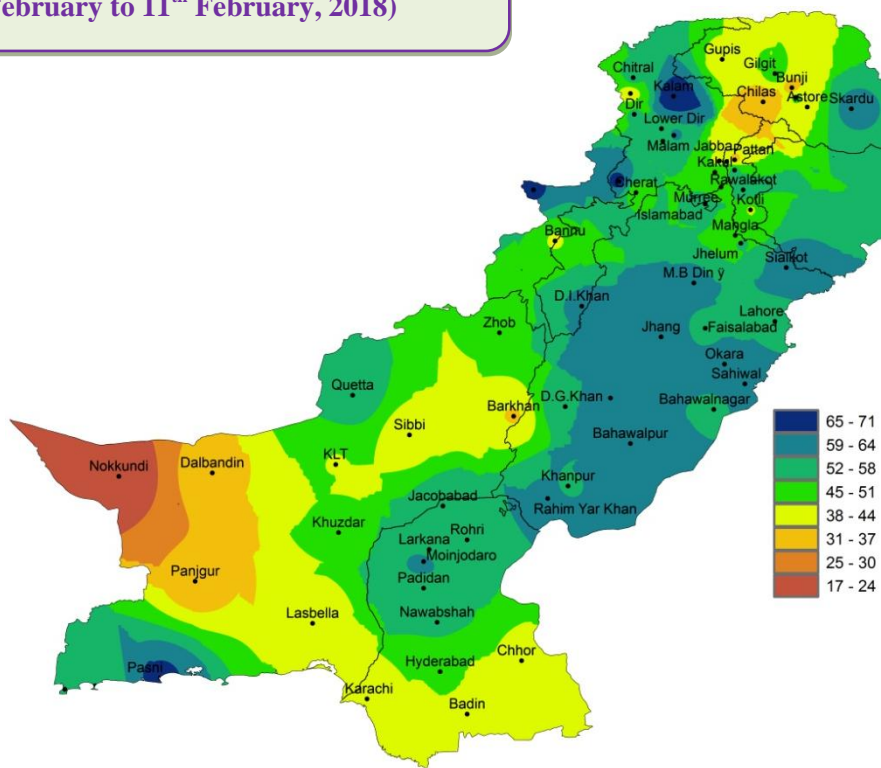
**Mean Minimum Temperature (°C) during the
Previous week (5th February to 11th February, 2018)**



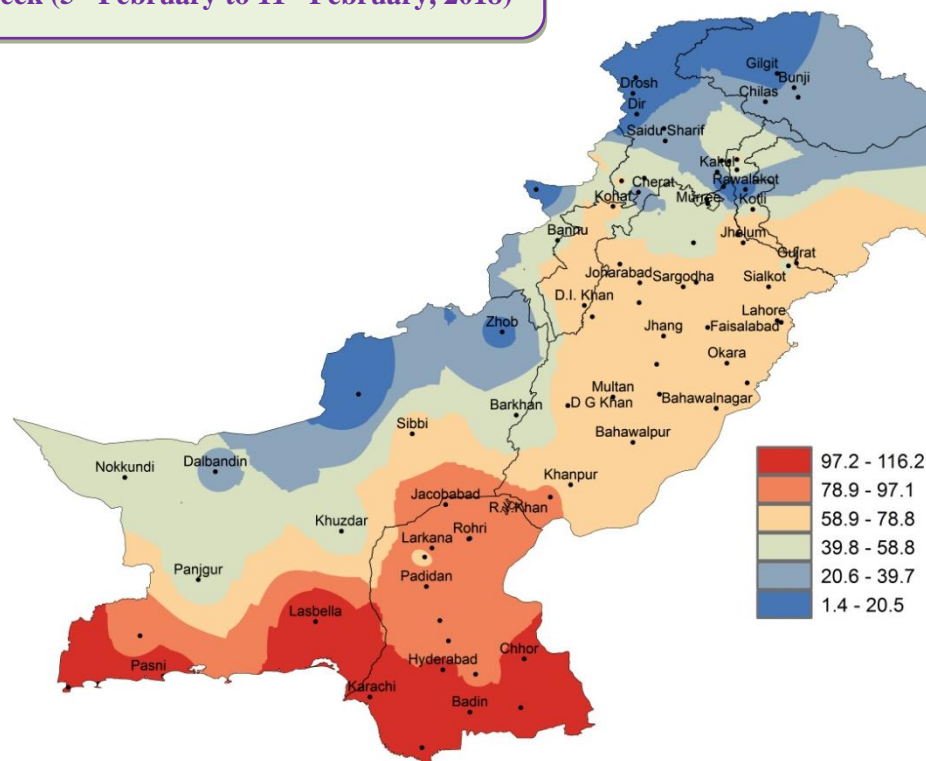
**Lowest Minimum Temperature (°C) during the
Previous week (5th February to 11th February, 2018)**



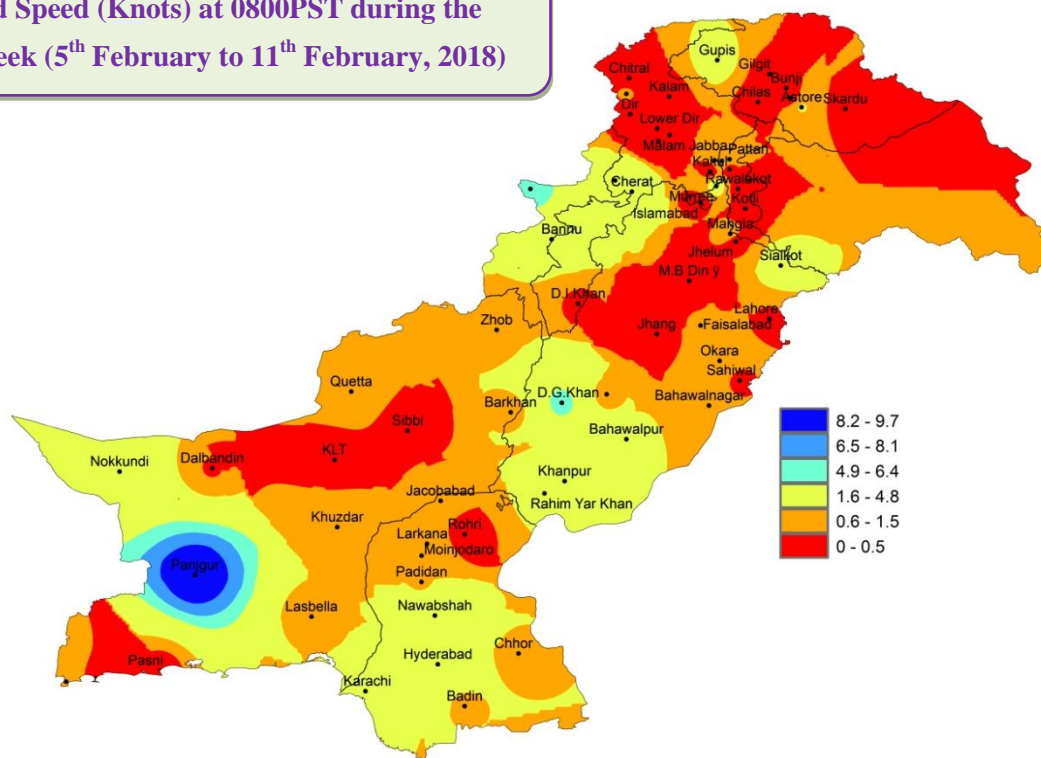
Mean Relative Humidity (%) during the previous week (5th February to 11th February, 2018)



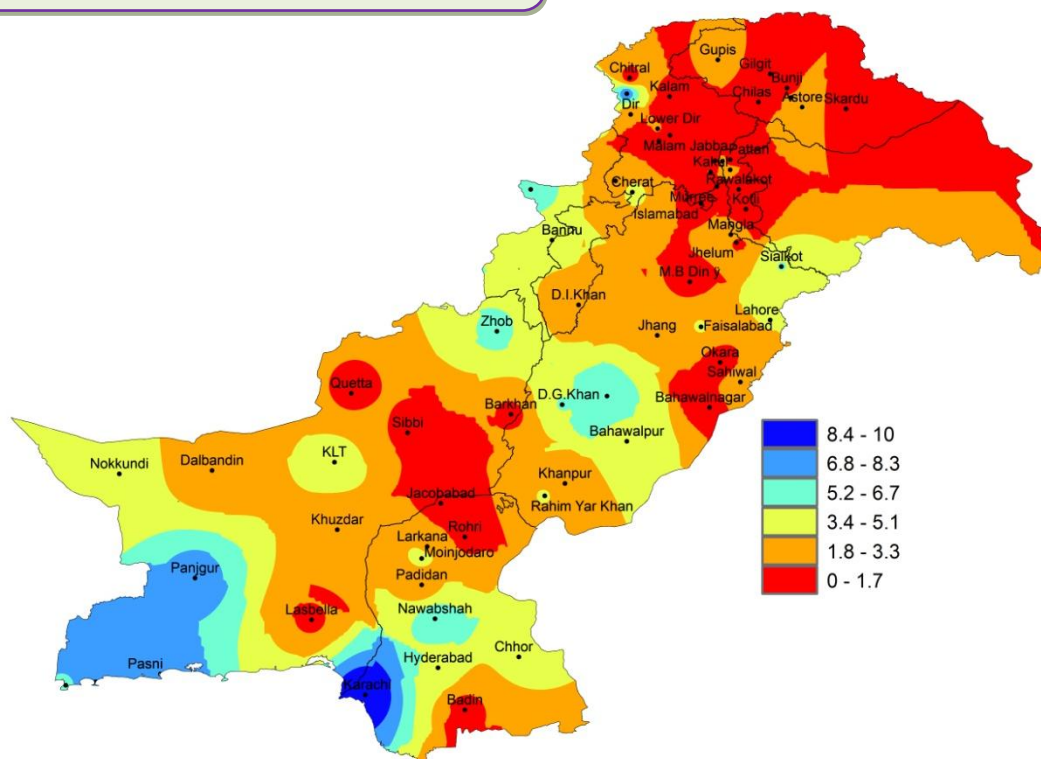
Total Growing Degree Days accumulated during the previous week (5th February to 11th February, 2018)



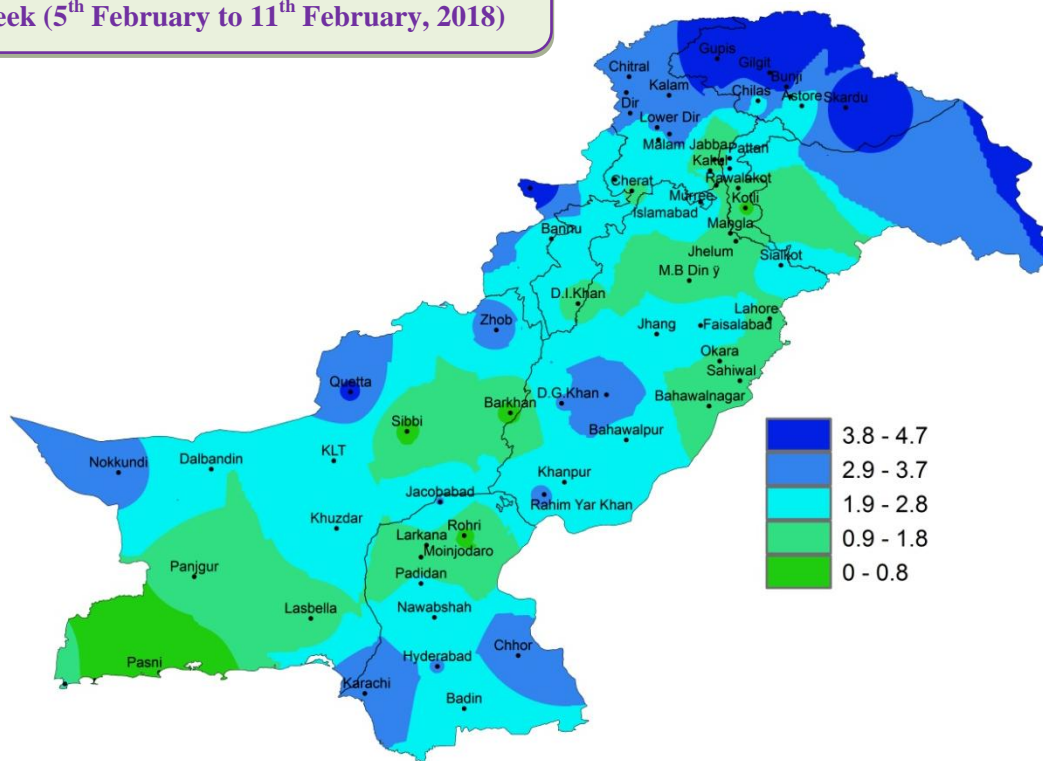
Mean Wind Speed (Knots) at 0800PST during the previous week (5th February to 11th February, 2018)



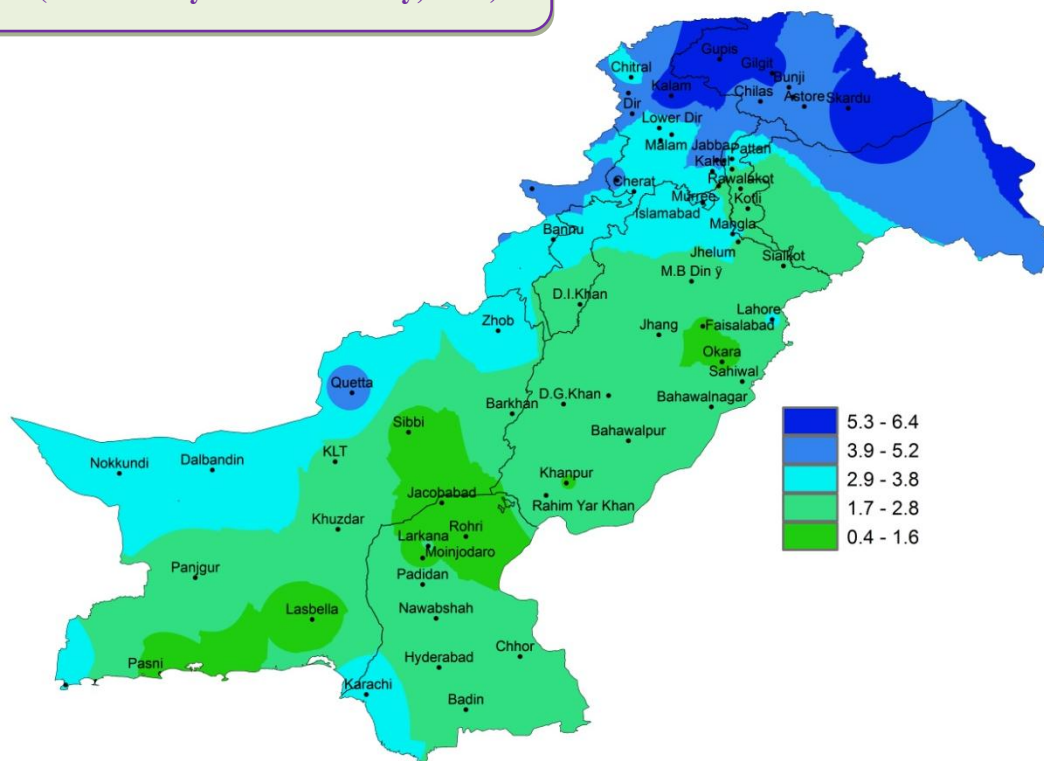
Mean Wind Speed (Knots) at 1700PST during the previous week (5th February to 11th February, 2018)



Mean Cloudiness (Oktas) at 0800PST during the previous week (5th February to 11th February, 2018)



Mean Cloudiness (Oktas) at 1700PST during the previous week (5th February to 11th February, 2018)



Weekly Weather Advisory for Farmers
(12th February to 18th February, 2018)

The westerly wave is still affecting upper parts of the country and likely to persist during next 24 hours.

MONDAY

12-02-2018

More rain-thunderstorm (with snowfall over the hills) is expected at scattered places in Khyber-Pakhtunkhwa, FATA, upper Punjab (Rawalpindi, Sargodha, Gujranwala, Faisalabad, Lahore divisions), Islamabad, Kashmir and Gilgit-Baltistan.

TUESDAY

13-02-2018

More rain-thunderstorm (with snowfall over the hills) is expected at isolated places in Rawalpindi, Gujranwala, Malakand, Hazara, Peshawar, Mardan divisions, Kashmir and Gilgit-Baltistan. Cold and dry weather is expected elsewhere in the country.

WEDNESDAY

14-02-2018

Mainly cold and dry weather is expected in most parts of the country. However, more rain-thunderstorm (with snowfall over the hills) is expected at isolated places in Malakand division and Gilgit-Baltistan.

THURSDAY

15-02-2018

Mainly cold and dry is expected in most parts of the country. However, more rain-thunderstorm (with snowfall over the hills) is expected at a few places in Malakand division and Gilgit-Baltistan.

FRIDAY

16-02-2018

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

SATURDAY

17-02-2018

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

SUNDAY

18-02-2018

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

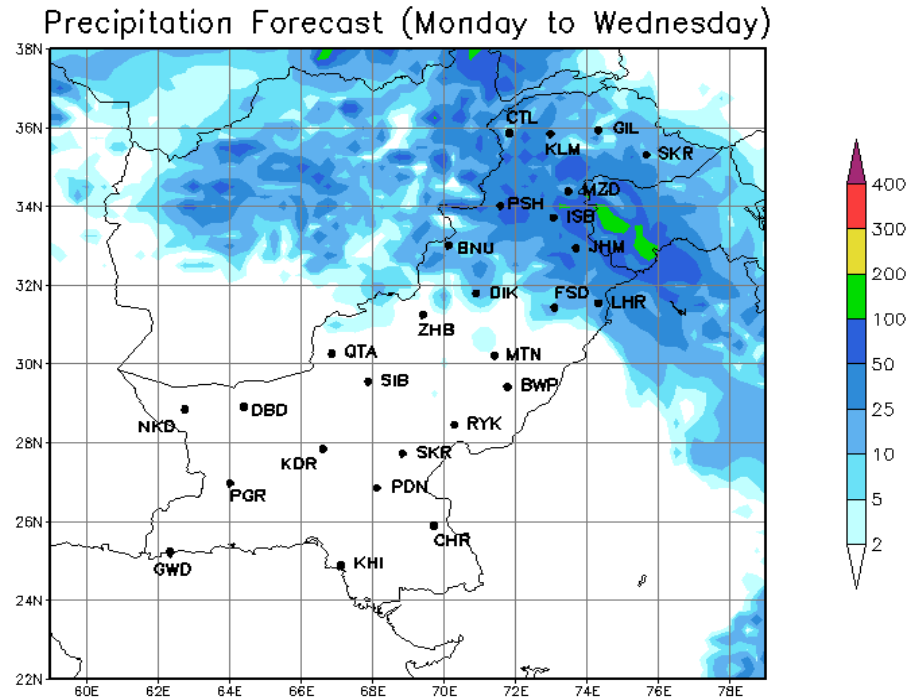
ADVISES FOR FARMERS

During the last week, light to moderate rainfall was observed in most parts of the agricultural plains of the country. In next week, light rainfall is expected in the start of the week whereas dry weather is likely to prevail in most parts of the country for rest of the week. Accordingly, following advises are suggested for the farming community.

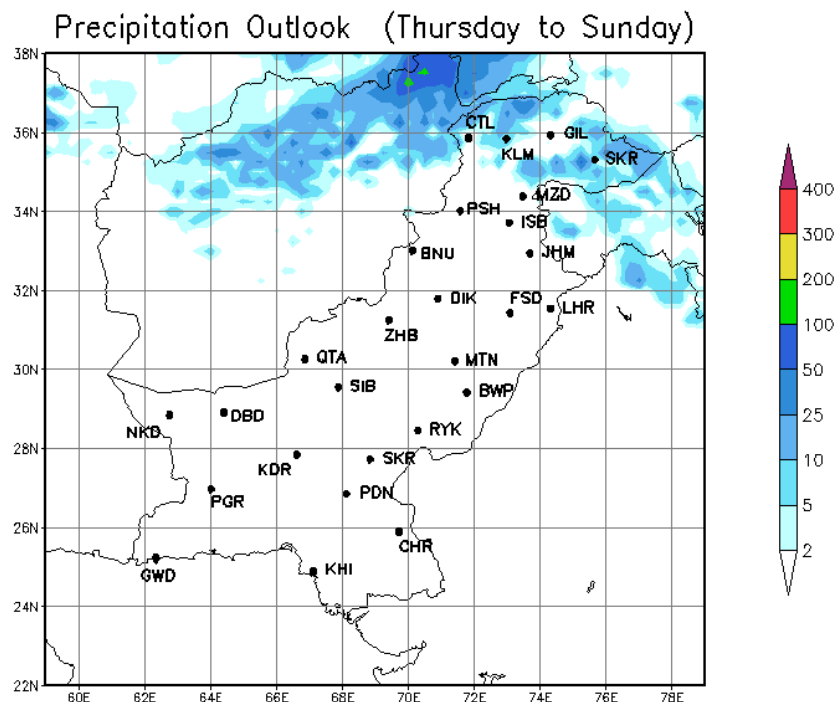
- Necessary precautionary measures may be taken to protect crops/nurseries from effects of extreme weather.
- Farmers of irrigated areas should irrigate the crop as per requirement keeping expected weather in mind.
- Removing weeds from the standing crops is very important as weeds utilize moisture and food which may be utilized by the crop. As a result considerable loss in yield occurs every year. However operations against weeds should be started using weedicides or manually when the crop completely covers the fields.

Weather Outlook from 12th to 18th February, 2018

The outlook for the period 12th to 14th February, 2018 shows that light to moderate rainfall is expected in KP, GB, Azad Kashmir and upper Punjab with light rainfall at scattered places in Balochistan. However, dry weather is expected elsewhere.



The outlook for the period 15th to 18th February, 2018 shows that dry weather is expected to prevail in most parts of the country, however light rainfall is expected at scattered places in upper KP, Gilgit-Baltistan and Azad Kashmir.



National Weather Data of Selected Cities (5th to 11th 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	-5.4	-7.5	***	43	0.00	2.3	4.1	1.7	3.4
Badin	14.6	13.0	116.3	42	0.00	2.0	2.6	1.2	1.1
Bahawalnagar	7.6	7.0	76.8	56	4.00	1.3	2.1	0.7	1.4
Bahawalpur	7.5	6.3	74.1	63	2.01	2.5	1.7	2.0	4.6
Balakot	1.7	1.3	43.4	43	2.50	1.8	4.7	0.5	0.6
Bannu	5.0	3.0	58.6	43	21.00	2.3	3.3	3.0	4.0
Barkhan	4.8	3.0	43.3	37	2.00	0.7	2.2	1.0	1.3
Bunji	2.7	1.1	25.2	32	0.00	4.3	5.1	0.3	0.9
Cherat	3.6	3.0	25.4	46	8.00	1.7	3.1	3.3	3.7
Chhor	8.2	6.7	100.2	42	0.00	3.2	2.7	1.0	3.7
Chilas	1.8	1.5	30.0	31	0.00	2.7	4.7	0.0	0.9
Chitral	-1.9	-3.5	4.3	54	5.00	3.0	3.3	0.0	0.6
D.G.Khan	4.9	3.5	62.0	57	0.02	2.8	2.6	5.3	5.1
D.I.Khan	5.4	4.0	66.5	59	11.70	1.7	1.9	0.3	1.7
Dalbandin	0.1	-4.5	38.3	35	0.00	1.8	3.6	0.4	1.7
Dir	-2.5	-4.0	14.3	52	41.00	2.8	3.9	0.0	1.7
Drosh	-1.0	-2.0	7.3	39	4.40	3.0	4.7	0.7	8.0
Faisalabad	5.1	3.5	89.3	65	1.60	1.3	1.4	0.3	1.3
Garidopatta	3.2	2.7	49.3	55	8.00	2.2	2.6	0.0	2.0
Gawader	10.4	4.5	101.0	51	0.00	0.0	2.7	0.3	7.4
Gilgit	-3.1	-4.5	6.6	49	0.00	4.5	5.6	0.0	1.1

Gupis	-4.1	-5.0	***	41	0.00	4.2	5.6	2.3	2.3
Hyderabad	12.7	11.0	104.8	44	0.00	2.8	1.9	4.3	4.6
Islamabad	2.8	1.3	48.9	55	10.00	2.3	3.3	0.0	1.1
Jacobabad	9.7	8.0	87.7	56	0.01	2.8	1.6	1.0	0.6
Jhang	5.2	4.5	68.6	64	1.00	2.0	1.7	0.0	2.6
Jhelum	3.5	0.6	63.4	53	15.40	1.2	2.7	0.0	1.4
Jiwani	15.6	14.0	111.5	55	0.00	1.8	3.7	1.0	6.6
Kakul	0.7	-0.3	27.2	45	1.00	1.8	3.4	0.0	1.7
Kalam	-5.2	-7.0	***	71	16.00	3.7	6.4	0.0	0.6
Kalat	-5.1	-8.0	***	44	8.01	2.2	2.7	0.0	4.3
Karachi	12.9	11.0	111.2	40	0.01	3.5	3.7	2.3	10.0
Khanpur	5.3	3.5	72.2	57	0.00	1.8	1.6	1.7	2.3
Khuzdar	5.6	3.5	51.6	45	11.00	2.3	2.7	1.3	2.3
Kotli	4.2	3.0	60.3	43	8.00	0.7	2.0	0.0	0.3
Lahore	8.3	7.6	76.4	54	6.20	1.7	2.9	0.3	3.4
Larkana	9.3	8.0	89.3	51	1.00	1.8	1.7	1.3	3.1
Lasbella	12.3	10.0	110.4	40	3.00	1.5	1.1	0.7	1.4
Lower Dir	0.6	-1.0	31.9	55	13.00	3.0	3.0	0.0	2.0
M.B Din	5.4	4.5	68.4	60	5.00	1.3	2.6	0.0	1.1
Malam Jabba	-1.7	-3.0	***	59	27.00	3.2	3.6	0.0	0.0
Mangla	3.8	1.6	61.9	44	14.70	1.8	3.1	1.0	2.9
Mir Khani	2.0	1.5	33.8	46	15.40	2.3	4.0	0.0	1.9
Moinjodaro	7.9	6.0	72.4	61	0.01	1.0	1.2	1.0	3.7
Multan (PBO)	7.2	5.5	71.2	61	3.10	3.3	2.6	1.0	6.0
Murree	0.7	-0.5	6.3	44	6.00	1.7	2.7	2.3	1.4

Muzaffarabad	3.5	3.0	47.3	45	4.00	0.8	3.9	1.7	2.6
Nawabshah	8.1	6.0	88.4	52	0.00	2.2	2.0	3.7	6.3
Nokkundi	4.8	3.0	57.9	17	0.00	3.2	3.6	2.3	4.0
Okara	7.1	6.0	74.1	61	0.01	1.7	1.6	1.3	0.9
Padidan	7.9	7.0	96.1	55	0.00	2.0	2.9	1.3	2.0
Panjgur	2.9	0.0	49.3	32	0.00	1.2	2.1	9.7	7.4
Parachinar	-3.1	-4.0	1.3	65	15.00	4.5	4.7	5.7	6.1
Pasni	12.5	10.0	105.5	66	0.00	0.0	1.1	0.0	6.7
Pattan	7.4	6.5	62.0	33	6.00	2.3	3.1	0.8	0.7
Peshawar	6.6	5.5	61.0	67	10.01	2.3	4.0	1.7	2.0
Quetta	-0.6	-5.0	2.3	43	4.30	3.6	3.4	1.2	3.2
Rahim Yar Khan	7.2	6.5	81.5	60	0.00	3.0	2.3	2.0	3.4
Rawalakot	-2.2	-3.2	7.0	57	20.30	1.5	2.7	0.0	1.1
Rawalpindi	2.9	1.5	53.7	58	8.60	2.0	2.9	0.3	0.7
Rohri	10.0	9.5	91.1	54	0.00	0.7	0.4	0.0	1.1
Sahiwal	6.1	4.4	66.7	63	4.00	1.7	1.7	0.3	2.6
Saidu Sharif	2.4	1.0	37.4	50	7.00	2.0	3.0	0.0	0.6
Sialkot	4.3	3.0	57.0	63	17.10	2.2	2.3	2.5	5.1
Sibbi	2.4	0.0	65.8	39	0.01	0.7	1.1	0.0	1.4
Skardu	-5.8	-8.0	***	61	0.00	4.7	6.1	0.0	0.0
Tandojam	9.8	7.5	89.3	54	0.00	0.4	1.4	0.2	1.4
Uata.M	7.6	6.5	77.6	58	Trace*	0.4	0.0	0.2	0.2
Zhob	1.3	-1.0	17.8	47	18.00	3.0	3.4	0.8	5.4

*** Shows that data was not available.

*Trace shows not-measurable data

Research 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)