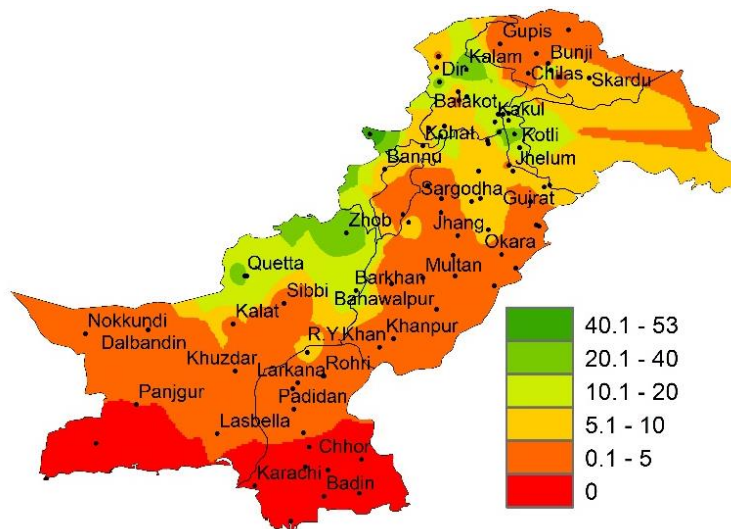


Weekly Weather and Crop Bulletin for Pakistan

**NATIONAL AGROMET CENTRE
PAKISTAN METEOROLOGICAL
DEPARTMENT SECTOR H-8/2,
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**Rainfall Distribution (mm) during the previous
Week (19th to 25th February, 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(19th to 25th 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 KPK, GB, Azad Kashmir and Balochistan during the previous week.
- Light rainfall reported from most places of Punjab and scattered places of 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 (19th to 25th February, 2018)

Punjab

Lightrainfall observed at a most places in Punjab during the previous week. Weekly maximum and minimum temperatures recorded as 25.6°C & 11.3°C respectively. For the recent week on average 94.1 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 64% and wind speed in the morning/evening recorded as 1.7/2.7 knots. During the previous week highest amount of rainfall was reported as 23 mm at Murree, lowest minimum temperature was recorded as 2.0°C at Murree.

Balochistan

Light to moderate rainfall reported from Balochistan during the week. Weekly maximum and minimum temperatures recorded as 26.4°C & 11.4°C respectively. For the recent week on average 95.2 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 0.9/5.3 knots. During the previous week highest amount of rainfall was reported as 27.1 mm at Quetta & lowest minimum temperature was recorded as 1.0°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 19.1°C & 5.7°C respectively. For the recent week on average 58 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 1.1/1.9 knots. During the previous week highest amount of rainfall was reported as 53 mm at Parachinar &

lowest minimum temperature was recorded as -5.5°C at Kalam.

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 16.7°C & 3.0°C respectively. For the recent week on average 48.1 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 0.7/1.3 knots. During the previous week highest amount of rainfall was reported as 22.0 mm at Rawalakot and lowest minimum temperature was recorded as -6.0°C at Skardu.

Sindh

Light rainfall reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 31.6°C & 16.0°C respectively. For the recent week, on average 129.3 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 1.7/3.6 knots. During the previous week highest amount of rainfall was reported as 6.0 mm at Jacobabad & lowest minimum temperature was recorded as 9.5°C at Mirpur Khas.

Past Weather for Major Agricultural Plains (19th to 25th February, 2018)

Rawalpindi (Potohar region)

Rainfall reported as 6.9 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.3/4.1 Oktas while average relative humidity observed as 68%. Mean night time temperature recorded as 8.0°C & for the recent week 83.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.4/0.9 knots.

Faisalabad (Central Punjab)

Rainfall reported as 5.4 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 2.7/3.6 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as 11.7°C & for the recent week 98.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.5/0.5 knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.6/1.4 Oktas while average relative humidity observed as 61%. Mean night time temperature recorded as 13.9°C & for the recent week 126.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/1.1 knots.

Usta Muhammad (Eastern Balochistan)

Rainfall reported as 7.0 mm from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 1.6/2.0 Oktas while average relative humidity observed as 65%. Mean night time temperature recorded as 10.2°C & for the recent week 87.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/1.7 knots.

Quetta (Northern Baluchistan)

Rainfall reported as 10.8 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 4.1/4.7 Oktas while average relative humidity observed as 45%. Mean night time temperature recorded as 7.2°C & for the recent

week 57.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/4.4 knots.

Past Weather for Sub-Regional Agricultural Plains (19th to 25th February, 2018)

Multan

Rainfall reported as Trace (Not measureable) from Multan during the week; however, cloudiness in the morning/evening recorded as 3.9/3.1 Oktas while average relative humidity observed as 61%. Mean night time temperature recorded as 13.4°C & for the recent week 104.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/4.3 knots.

Lahore

Rainfall reported as 1.50 from Lahore during the week; however, cloudiness in the morning/evening recorded as 3.0/4.0 Oktas while average relative humidity observed as 62%. Mean night time temperature recorded as 14.0°C & for the recent week 106.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.6/3.7 knots.

Zhob

Rainfall reported as 26 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 3.3/3.0 Oktas while average relative humidity observed as 58%. Mean night time temperature recorded as 3.6°C & for the recent week 49.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/5.6 knots.

Murree

Rainfall reported as 23.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 3.1/5.1 Oktas while average relative humidity observed as 62%. Mean night time temperature recorded as 2.9°C & for the recent week 22.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/1.4 knots.

D.I. Khan

Rainfall reported as 1.71 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 4.0/1.1 Oktas

while average relative humidity observed as 67%. Mean night time temperature recorded as 13.4°C & for the recent week 103.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/1.7 knots.

Peshawar

Rainfall reported as 8.01 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 4.3/5.7 Oktas while average relative humidity observed as 69%. Mean night time temperature recorded as 9.0°C & for the recent week 80.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/1.7 knots.

Kalam

Rainfall reported as 30.5 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.9/6.1 Oktas while average relative humidity observed as 78%. Mean night time temperature recorded as -2.7°C. Wind speed recorded in the morning/evening as 0.0/0.0 knots.

Gilgit

Rainfall reported as 1.02 mm during the week; However, cloudiness in the morning/evening recorded as 5.4/7.1 Oktas while average relative humidity observed as 51%. Mean night time temperature recorded as 1.9°C & for the recent week 32.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/0.6 knots.

Skardu

Rainfall reported as 6.02 mm from Skardu during the week; However, cloudiness in the morning/evening recorded as 4.4/5.4 Oktas while average relative humidity observed as 63%. Mean night time temperature recorded as -2.8°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 metCenters)

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 completed 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)

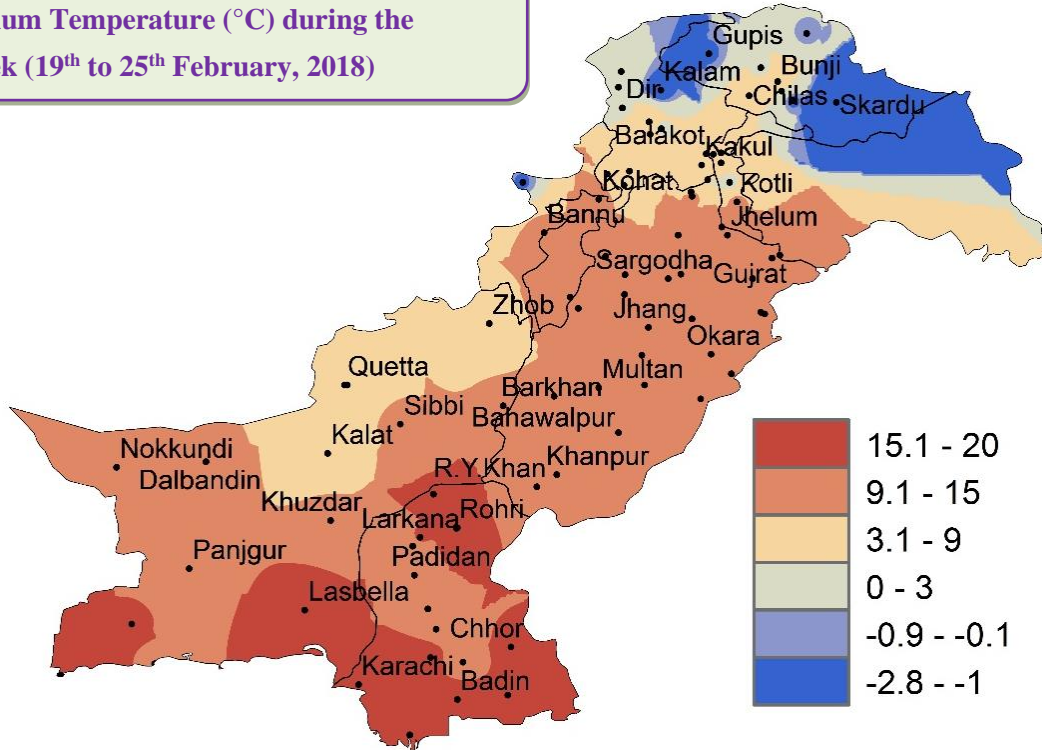
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

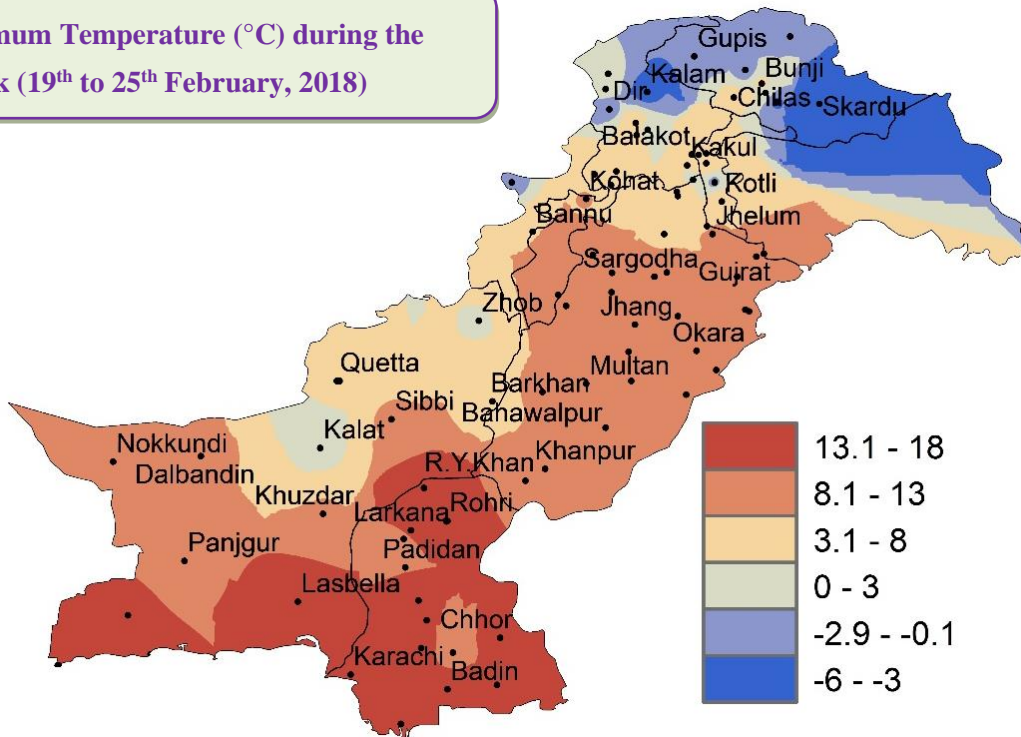
There is presently one crop grown in the fields of RAMC Usta Muhammad.

Wheat (*Galaxy*); Good, at flowering stage.

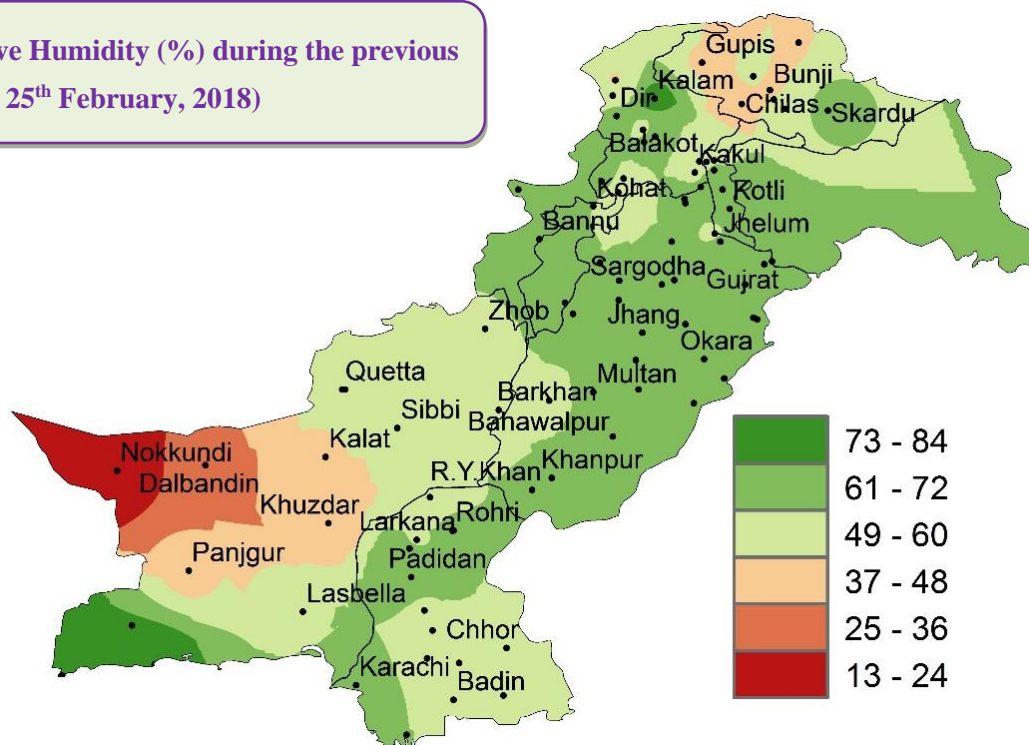
**Mean Minimum Temperature (°C) during the
Previous week (19th to 25th February, 2018)**



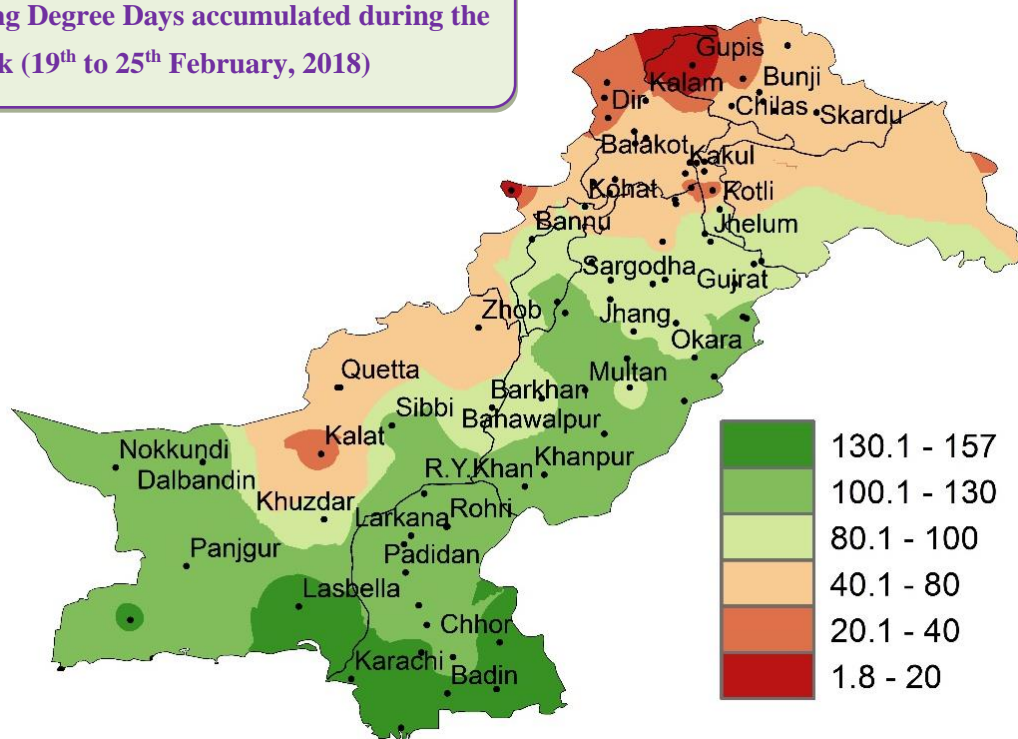
**Lowest Minimum Temperature (°C) during the
Previous week (19th to 25th February, 2018)**



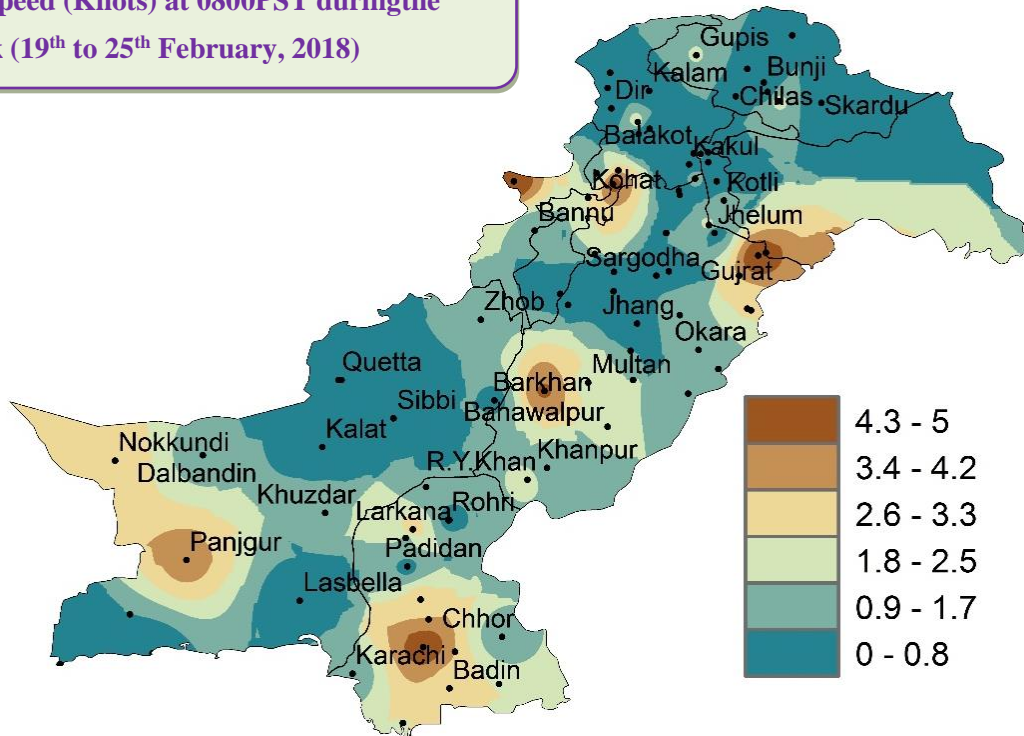
Mean Relative Humidity (%) during the previous week (19th to 25th February, 2018)



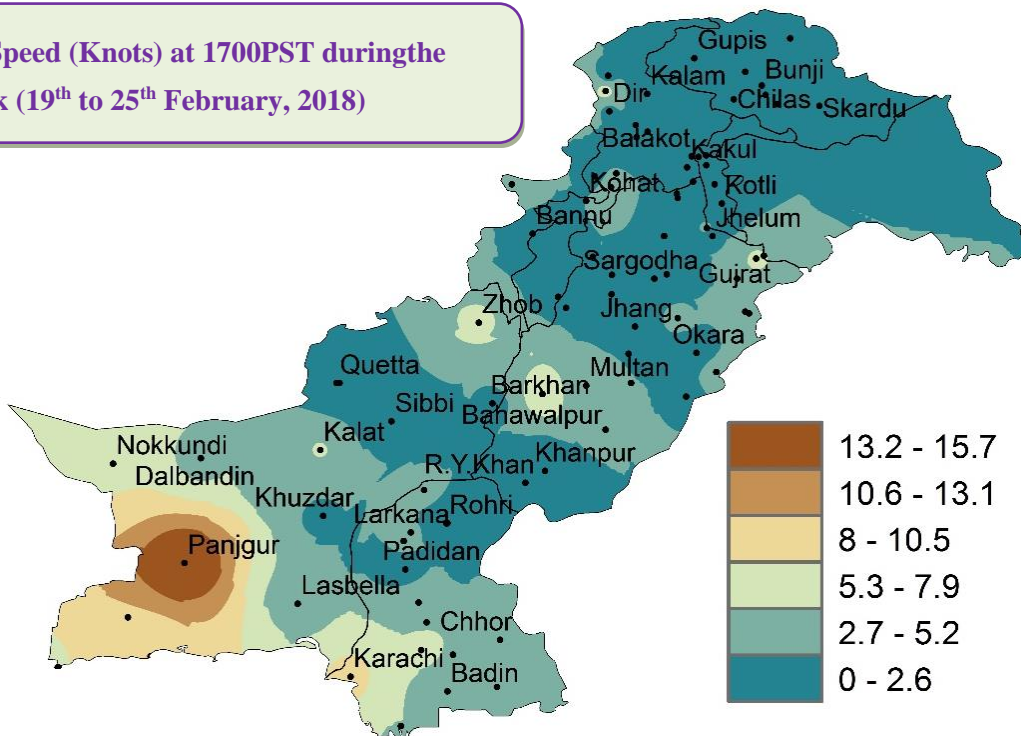
Total Growing Degree Days accumulated during the previous week (19th to 25th February, 2018)



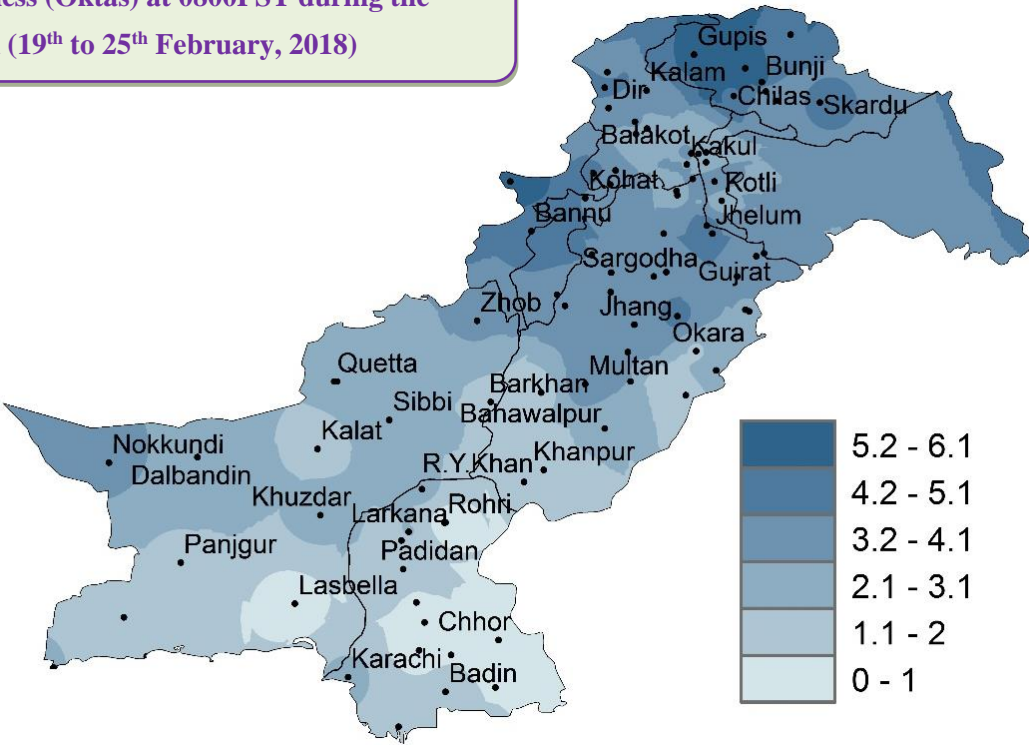
Mean Wind Speed (Knots) at 0800PST during the previous week (19th to 25th February, 2018)



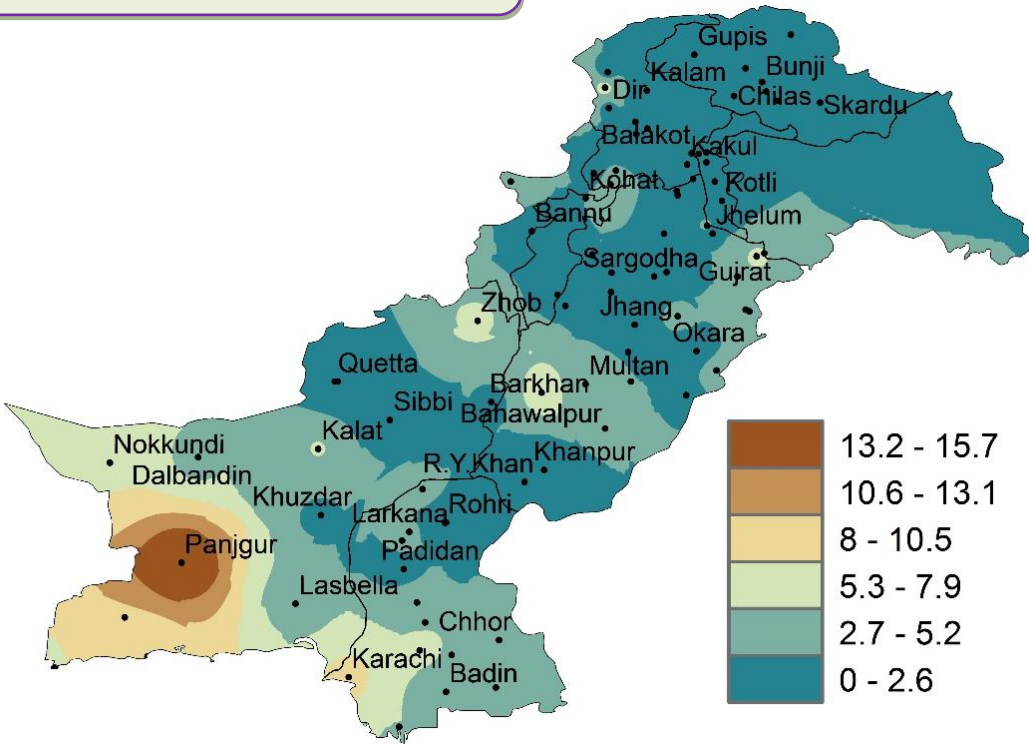
Mean Wind Speed (Knots) at 1700PST during the previous week (19th to 25th February, 2018)



Mean Cloudiness (Oktas) at 0800PST during the previous week (19th to 25th February, 2018)



Mean Cloudiness (Oktas) at 1700PST during the previous week (19th to 25th February, 2018)



Weekly Weather Advisory for Farmers
(26th February to 4th March, 2018)

A shallow westerly wave is affecting western border of the country and likely to affect upper parts of the country tonight. Another westerly wave is likely to enter in the country on Wednesday and may persist till Saturday.

MONDAY (26-02-2018)

Partly cloudy to cloudy weather in most parts of the country with chances of rain-thunderstorm is expected at isolated places in Quetta, Zhob, Malakand, Hazara, Peshawar, Kohat, Mardan, Rawalpindi divisions, Islamabad and upper FATA.

TUESDAY (27-02-2018)

Partly cloudy to cloudy weather in upper parts of the country with chances of light rain is expected at isolated places in Zhob, Malakand divisions, Kashmir and Gilgit-Baltistan

WEDNESDAY (28-02-2018)

Partly cloudy to cloudy weather in most parts of the country with chances of light rain is expected at isolated places in Quetta, Zhob, Malakand, Hazara, Peshawar, Kohat, Mardan, Rawalpindi divisions, Islamabad and upper FATA.

THURSDAY (01-03-2018)

Rain-thunderstorm (with snowfall over the hills) is expected at scattered places in Khyber-Pakhtunkhwa, FATA, Islamabad, upper Punjab (Rawalpindi, Sargodha, Faisalabad, Gujranwala, Lahore divisions), Kashmir and Gilgit-Baltistan, while at isolated places in Quetta, Zhob, Sibbi and Kalat divisions.

FRIDAY (02-03-2018)

Rain-thunderstorm (with snowfall over the hills) is expected at scattered places in Khyber-

Pakhtunkhwa, FATA, Islamabad, upper Punjab (Rawalpindi, Sargodha, Faisalabad, Gujranwala, Lahore divisions), Kashmir and Gilgit-Baltistan, while at isolated places in south Punjab (Multan, Bahawalpur, D.G Khan and Sahiwal divisions).

SATURDAY (03-03-2018)

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

SUNDAY (04-03-2018)

Mainly cold and dry weather is expected in most parts of the country. However, rain-thunderstorm (with snowfall over the hills) is expected at isolated places in Malakand, Hazara divisions, Gilgit-Baltistan, Kashmir and its adjoining hilly areas.

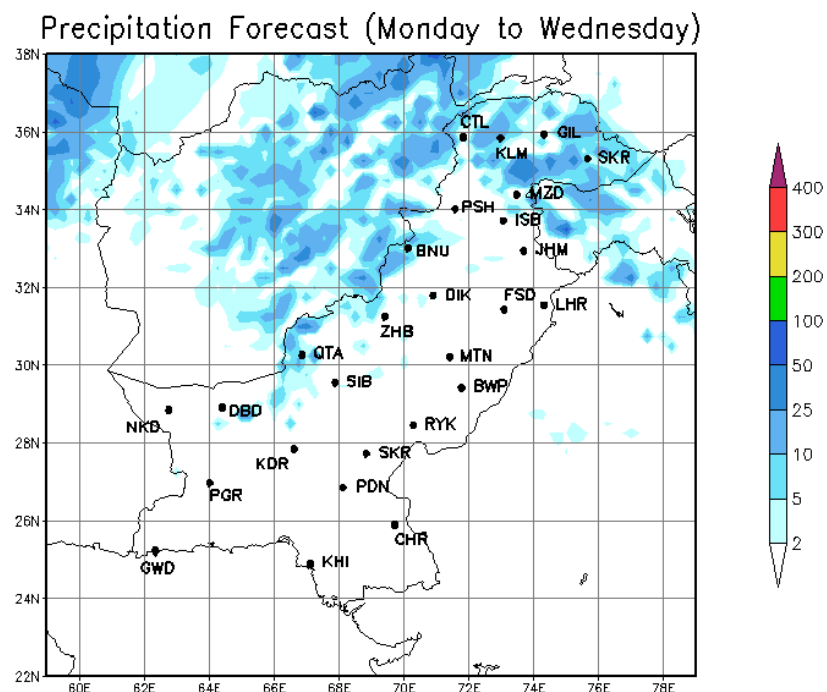
ADVISES FOR FARMERS

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

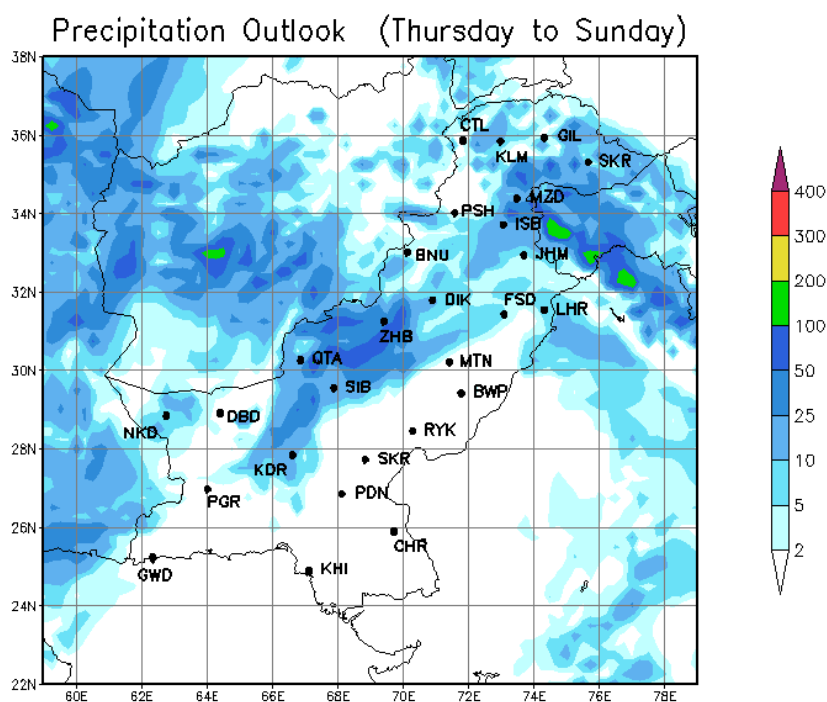
- Necessary precautionary measures may be taken to protect crops/nurseries from effects of extreme weather conditions.
- Crops/Nurseries may be irrigated according to the rainfall prediction.
- Removal of weeds from the fields must be ensured.

Weather Outlook from 26th February to 4th March, 2018

The outlook for the period 26th to 28th 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 1st March to 4th March, 2018 shows that light to moderate rainfall is expected in Gilgit-Baltistan, Azad Kashmir, Baluchistan, KPK and Punjab.



National Weather Data of Selected Cities (19th to 25th February, 2018)

Stations	Minimum Nighttime 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	-1.9	-4.0	**	57	1.00	3.3	5.4	2.0	2.3
Badin	19.0	18.0	148.3	58	0.00	1.6	2.8	2.9	3.0
Bahawalnagar	13.1	11.0	105.3	63	11.20	1.4	3.6	1.1	2.3
Bahawalpur	12.5	10.5	103.5	69	0.01	2.3	2.4	1.7	3.1
Balakot	7.7	5.6	68.2	54	1.40	3.6	5.0	0.4	0.7
Bannu	11.0	8.0	87.9	66	14.90	4.4	3.3	0.9	1.1
Barkhan	10.4	5.0	84.0	48	6.02	1.9	4.0	0.6	2.0
Bunji	6.8	3.9	51.1	43	0.04	5.9	6.7	0.3	0.9
Cherat	5.6	3.5	37.5	49	13.00	3.7	4.7	4.6	4.0
Chhor	16.6	15.0	146.2	57	0.00	0.0	1.6	1.1	3.2
Chilas	5.4	4.5	51.0	41	0.00	5.0	6.0	0.6	2.0
Chitral	2.3	1.3	30.5	48	4.51	3.9	6.3	0.9	1.4
D.G.Khan	10.8	9.2	98.2	57	1.00	1.6	2.9	4.3	6.3
D.I.Khan	13.4	11.0	103.3	67	1.71	4.0	1.1	0.6	1.7
Dalbandin	11.9	9.5	107.8	30	1.20	3.0	4.7	1.1	4.3
Dir	1.4	-2.0	31.9	68	23.00	3.3	5.6	0.0	2.1
Drosh	1.7	1.0	23.2	51	4.90	4.7	6.4	0.0	6.3
Faisalabad	11.7	10.0	98.9	67	5.40	2.7	3.6	0.5	0.5
Garidopatta	7.4	6.6	69.3	64	15.61	2.3	3.9	0.6	0.6
Gawader	17.1	16.0	109.5	82	0.00	1.7	3.0	0.0	9.1
Gilgit	1.9	-2.5	32.5	51	1.02	5.4	7.1	0.6	0.6
Gupis	-1.4	-2.5	1.8	46	1.00	5.4	6.9	1.7	2.6

Hyderabad	17.0	15.5	141.3	56	0.00	0.6	2.6	4.6	6.0
Islamabad	8.1	5.5	73.9	65	6.01	2.9	4.9	0.0	0.9
Jacobabad	15.6	15.0	117.3	54	6.00	2.4	1.6	0.9	3.4
Jhang	11.4	9.8	99.3	68	3.00	3.3	2.6	0.3	1.1
Jhelum	10.8	8.3	94.1	63	7.01	4.1	4.9	0.3	2.0
Jiwani	19.1	16.0	128.3	79	0.00	2.3	3.9	0.6	7.1
Kakul	5.0	3.0	49.2	58	11.00	3.0	4.7	0.3	1.1
Kalam	-2.7	-5.5	**	78	30.50	3.9	6.1	0.0	0.0
Kalat	3.2	1.0	32.8	47	4.01	1.7	4.8	0.3	5.3
Karachi	18.9	17.0	142.5	68	0.00	2.3	3.0	1.1	8.3
Khanpur	12.7	11.5	109.9	63	2.40	1.1	3.7	0.9	0.6
Khuzdar	11.1	8.5	92.0	37	4.30	2.4	4.4	1.4	2.3
Kotli	10.2	7.6	87.7	66	17.60	2.3	3.6	1.1	0.6
Lahore	14.0	12.0	106.2	62	1.50	3.0	4.0	2.6	3.7
Larkana	15.4	14.5	120.0	58	0.01	2.1	3.1	3.1	2.9
Lasbella	18.4	17.0	141.6	58	0.00	0.6	1.1	0.0	4.0
Lower Dir	8.5	6.0	66.0	58	8.00	3.9	5.3	2.3	1.7
M.B Din	11.3	9.5	93.9	69	10.00	3.6	4.0	0.6	0.9
Malam Jabba	0.9	0.0	**	66	14.00	2.3	5.0	0.0	0.0
Mangla	10.1	7.8	90.1	58	3.90	4.4	5.4	2.0	2.9
Mir Khani	2.8	2.0	40.1	50	20.00	3.0	5.1	0.3	1.0
Moinjodaro	13.6	11.7	114.9	66	0.01	1.6	1.4	1.4	2.9
Multan(PBO)	13.4	11.8	104.3	61	0.01	3.9	3.1	2.3	4.3
Murree	2.9	2.0	22.9	62	23.00	3.1	5.1	1.1	1.4
Muzaffarabad	6.4	6.0	64.5	53	15.50	1.9	3.9	1.1	2.3
Nawabshah	14.9	14.0	129.3	58	0.00	0.9	2.1	3.1	4.3

Nokkundi	13.4	12.0	116.0	13	4.00	3.3	4.4	3.1	7.4
Okara	12.1	9.5	100.0	65	2.60	1.9	1.3	0.9	1.4
Padidan	14.3	13.0	121.5	68	0.01	1.9	2.6	0.6	1.7
Panjgur	12.4	11.0	105.8	43	0.00	1.7	1.9	3.7	15.7
Parachinar	-1.4	-2.0	14.5	69	53.00	6.1	6.0	5.0	5.0
Pasni	14.4	13.5	116.5	84	0.00	1.4	1.1	0.3	7.9
Pattan	7.1	6.5	59.3	59	12.00	2.6	5.3	0.0	0.7
Peshawar	9.0	6.3	80.9	69	8.01	4.3	5.7	0.9	1.7
Quetta	7.2	4.2	57.8	45	10.80	4.1	4.7	4.4	4.2
Rahim Yar Khan	12.6	11.2	111.3	62	0.00	1.3	1.7	2.0	1.4
Rawalakot	1.1	-1.0	26.7	69	22.20	4.1	4.7	0.0	1.7
Rawalpindi	8.0	5.8	83.1	68	6.90	2.3	4.1	0.4	0.9
Rohri	15.5	14.0	121.5	63	3.00	0.4	0.7	0.6	0.7
Sahiwal	12.9	10.5	101.0	65	0.02	3.0	2.1	1.4	3.4
Saidu Sharif	6.2	4.5	55.3	61	2.00	2.0	3.7	0.0	0.0
Sialkot	10.2	8.3	86.2	67	7.70	3.4	4.9	4.9	5.4
Sibbi	10.5	9.0	104.3	53	1.00	2.6	2.3	0.0	0.9
Skardu	-2.8	-6.0	**	63	6.02	4.4	5.4	0.0	0.0
Tandojam	13.9	12.5	126.8	61	0.00	0.6	1.4	0.6	1.1
Usta.M	10.2	9.0	87.0	65	7.00	1.6	2.0	0.6	1.7
Zhob	3.6	2.5	49.8	58	26.00	3.3	3.0	1.1	5.6

*** Shows that data was not available.

*Trace shows not-measurable data

Findings of AgMIPPakistan, 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)