

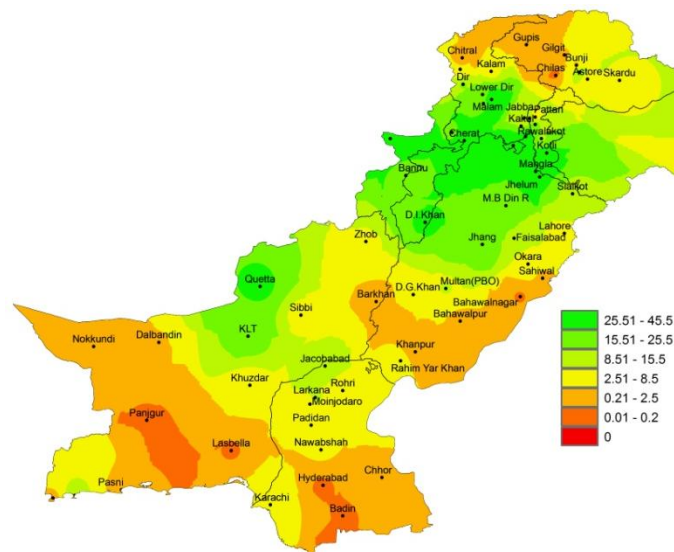
Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the Previous
Week (28th January, to 3rd February, 2019)**



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
AgMIP findings	12

Highlights of Past Weather (28th January to 3rd February, 2019)

Below normal night time temperatures were observed in GB & Azad Jammu Kashmir and Khyber Pakhtunkhwa, while mix trend was observed in Punjab, Sindh and Baluchistan during the last week.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall observed in most parts of the country.

Patron-in-Chief: Mr. Riaz Khan (Director General)

Editor-in-Chief: Asma Jawad Hashmi (Deputy Director)

Editor: Saeeda Saleh (Assistant Meteorologist)

Past Weather of Provinces (28th January to 3rd February, 2019)**Punjab**

Light to moderate rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 18.1°C & 5.4°C respectively. For the recent week on average 47.1 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 70% and wind speed in the morning/evening recorded as 1.9/3.6 Knots. During the previous the highest precipitation was recorded as 39.2 mm while the lowest minimum temperature was recorded as -2.8°C at Murree.

Baluchistan

Light to moderate rainfall observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 20.1°C & 7.0°C respectively. For the recent week on average 61.6 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 1.5/4.1 Knots. During the previous week the highest precipitation recorded as 37.01mm at Quetta while the lowest minimum temperature was recorded as -4.5°C at Kalat.

Khyber Pakhtunkhwa

Light to moderate rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 13.0°C & -1.0°C respectively. For the recent week on average 17.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 73% and wind speed in the morning/evening recorded as 1.3/1.4 Knots. During the previous week the highest precipitation recorded as 43.00 mm at Parachinar while the lowest minimum temperature was recorded as -15.5°C at Kalam.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall observed in Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 8.4°C & -3.1°C respectively. Average relative humidity recorded as 69% and wind speed in the morning/evening recorded as 0.6/1.8 Knots. During the previous week the highest precipitation recorded as 30.00 mm at Kotli while the lowest minimum temperature was recorded as -19.6°C at Skardu.

Sindh

Light to moderate rainfall observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 23.1°C & 8.7°C respectively. For the recent week, on average 75.0 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 62% and wind speed in the morning/evening recorded as 1.2/4.1 Knots. During the previous week the highest precipitation recorded as 12.00mm at Jacobabad while lowest minimum temperature was recorded as 03°C at Mithi.

Past Weather for Major Agricultural Plains (28th January to 3rd February, 2019)

Rawalpindi (Potohar region)

39.4 mm rainfall reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.7/3.4 Oktas while, average relative humidity observed as 75%. Mean night time temperature recorded as 1.7°C & for the recent week 34.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/0.6 Knots.

Faisalabad (Central Punjab)

10.8mm rainfall reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.7/0.9 Oktas while, average relative humidity observed as 71%. Mean night time temperature recorded as 5.6°C & for the recent week 50.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.4/0.5 Knots.

Tandojam (Lower Sindh)

2.0mm rainfall reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 1.1/0.1 Oktas while, average relative humidity observed as 66%. Mean night time temperature recorded as 8.0°C & for the recent week 77.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/1.7 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 1.8/1.4 Oktas while, average relative humidity observed as 74%. Mean night time temperature recorded as 6.9°C & for the recent week 58.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.2/0.8 Knots.

Quetta (Northern Baluchistan)

28.80mm rainfall reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 2.3/4.0 Oktas while, average relative humidity observed as 56%. Mean night time temperature recorded as 1.7°C & for the recent week

31.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.8/2.5 Knots.

Past Weather for Sub-Regional Agricultural Plains (28th January to 3rd February, 2019)

Multan

8.90mm rainfall reported from Multan during the week; however, cloudiness in the morning/evening recorded as 5.3/4.8 Oktas while, average relative humidity observed as 76%. Mean night time temperature recorded as 7.0°C & for the recent week 52.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.7/6.0 Knots.

Lahore

7.11 mm rainfall was reported from Lahore during the week; however, however, cloudiness in the morning/evening recorded as 3.2/4.2 Oktas while, average relative humidity observed as 67%. Mean night time temperature recorded as 7.1°C & for the recent week 55.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/3.3 Knots.

Zhob

7.00 mm rainfall was reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 2.3/3.5 Oktas while, average relative humidity observed as 64%. Mean night time temperature recorded as 0.5°C & for the recent week 7.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.5/5.0 Knots.

Murree

39.20 mm rainfall was reported from Murree during the week; however, cloudiness in the morning/evening recorded as 4.0/5.3 Oktas while, average relative humidity observed as 67%. Mean night time temperature recorded as -1.6° C by the end of last week. Wind speed recorded in the morning/evening as 2.3/1.3 Knots.

D.I. Khan

27.00 mm rainfall was reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 2.7/4.3 Oktas while,

average relative humidity observed as 76%. Mean night time temperature recorded as 4.4°C & for the recent week 46.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/1.0 Knots.

Peshawar

22.01 mm rainfall was reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 4.2/5.0 Oktas while, average relative humidity observed as 62%. Mean night time temperature recorded as 5.1°C & for the recent week 43.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.0/1.6 Knots.

Kalam

4.00mm rainfall was reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 4.8/4.3 Oktas while, average relative humidity observed as 80%. Mean night time temperature recorded as -9.8°C by the end of last week. Calm weather recorded in the morning/evening.

Gilgit

1.90mm rainfall was reported from Gilgit during the week; However, cloudiness in the morning/evening recorded as 5.7/6.0 Oktas while, average relative humidity observed as 68%. Mean night time temperature recorded as -0.4°C by the end of last week. Wind speed recorded in the morning/evening as 1.0/4.0 Knots.

Skardu

7.91mm rainfall was reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 5.0/4.8 Oktas while, average relative humidity observed as 75%. Mean night time temperature recorded as -13.2 °C by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.3 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)

Presently wheat crop is grown in the fields of RAMC Faisalabad.

Wheat: *Very Good, Tillering stage completed.*

Lower Sindh (Tandojam)

Presently wheat crop is sown in the fields of RAMC Faisalabad.

Wheat (TJ-83): *Good, Milk maturity stage.*

Northern Baluchistan (Quetta)

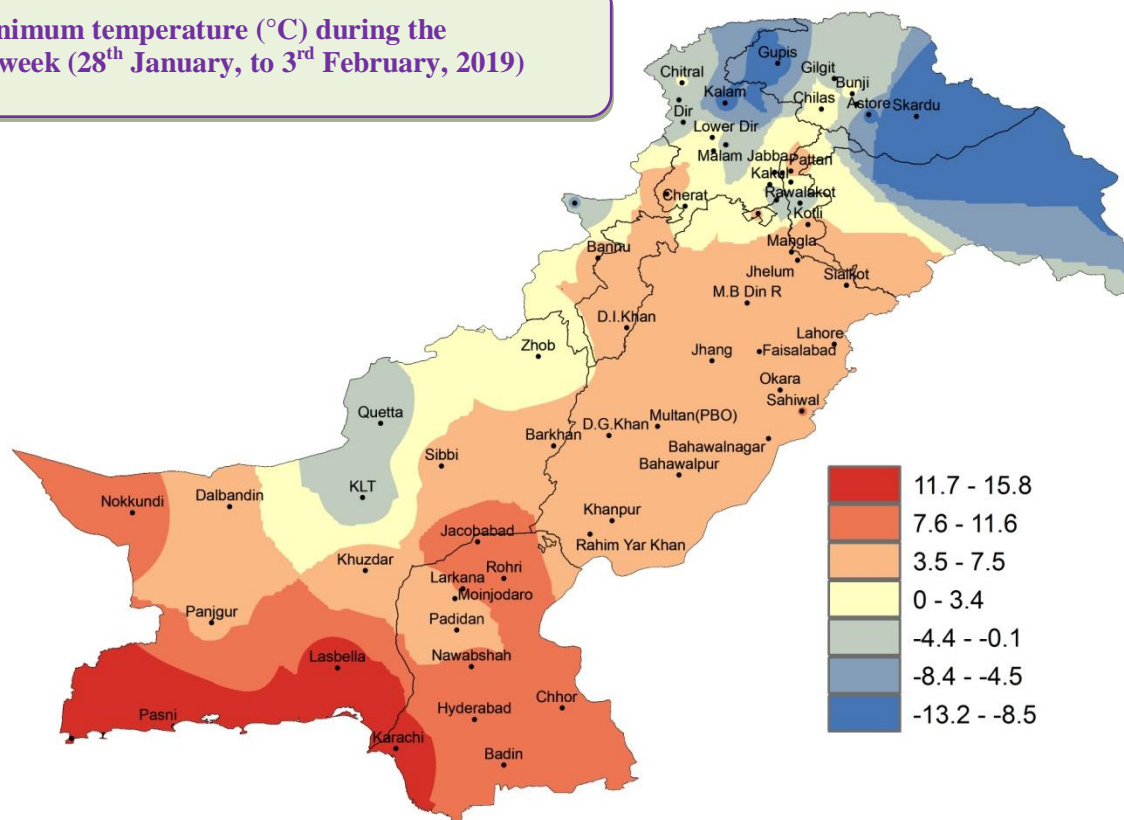
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

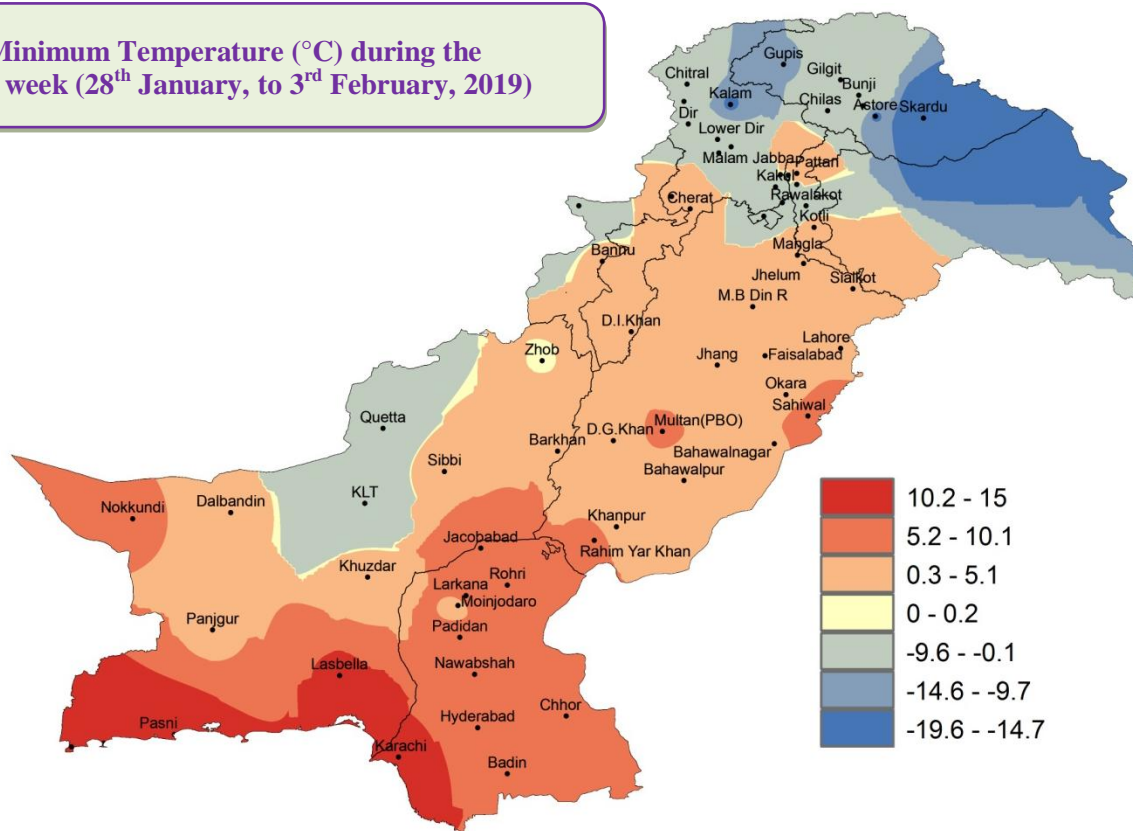
Presently wheat crop is sown in the fields of RAMC Usta Muhammad.

Wheat: *Good, Tillering stage.*

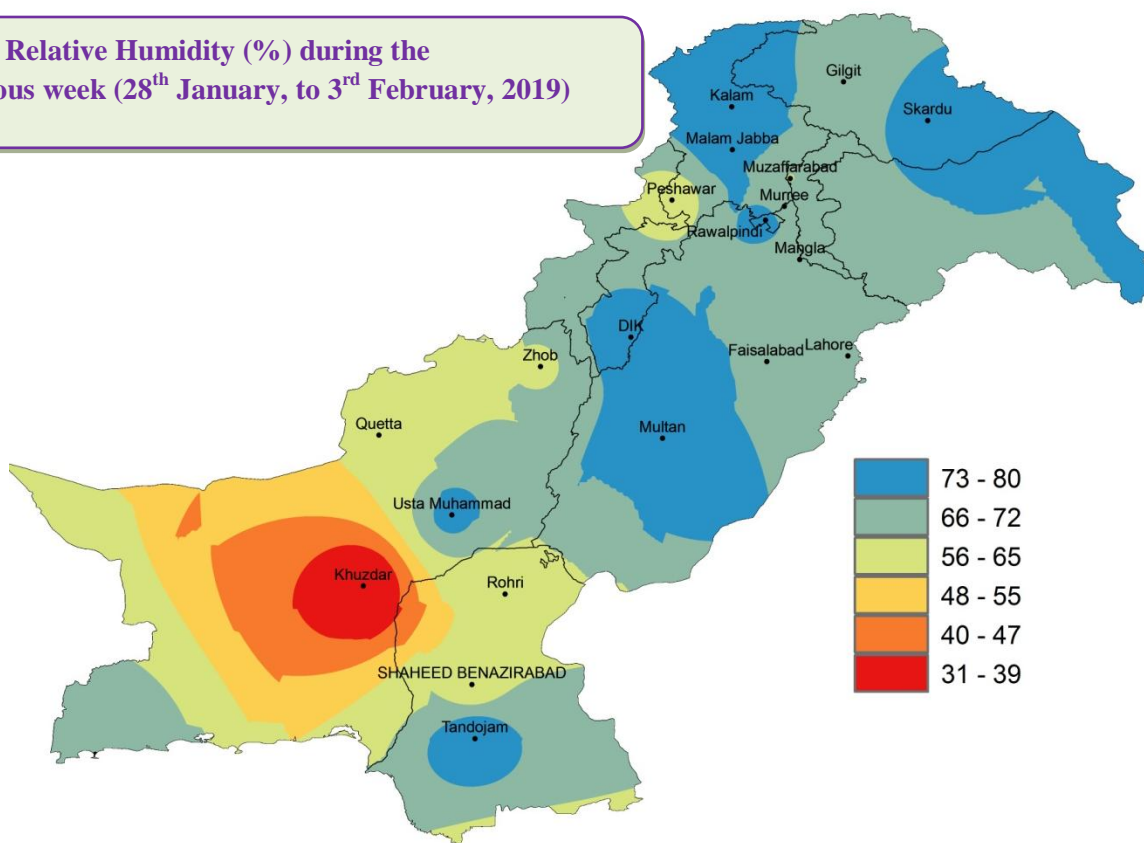
**Mean Minimum temperature (°C) during the
Previous week (28th January, to 3rd February, 2019)**



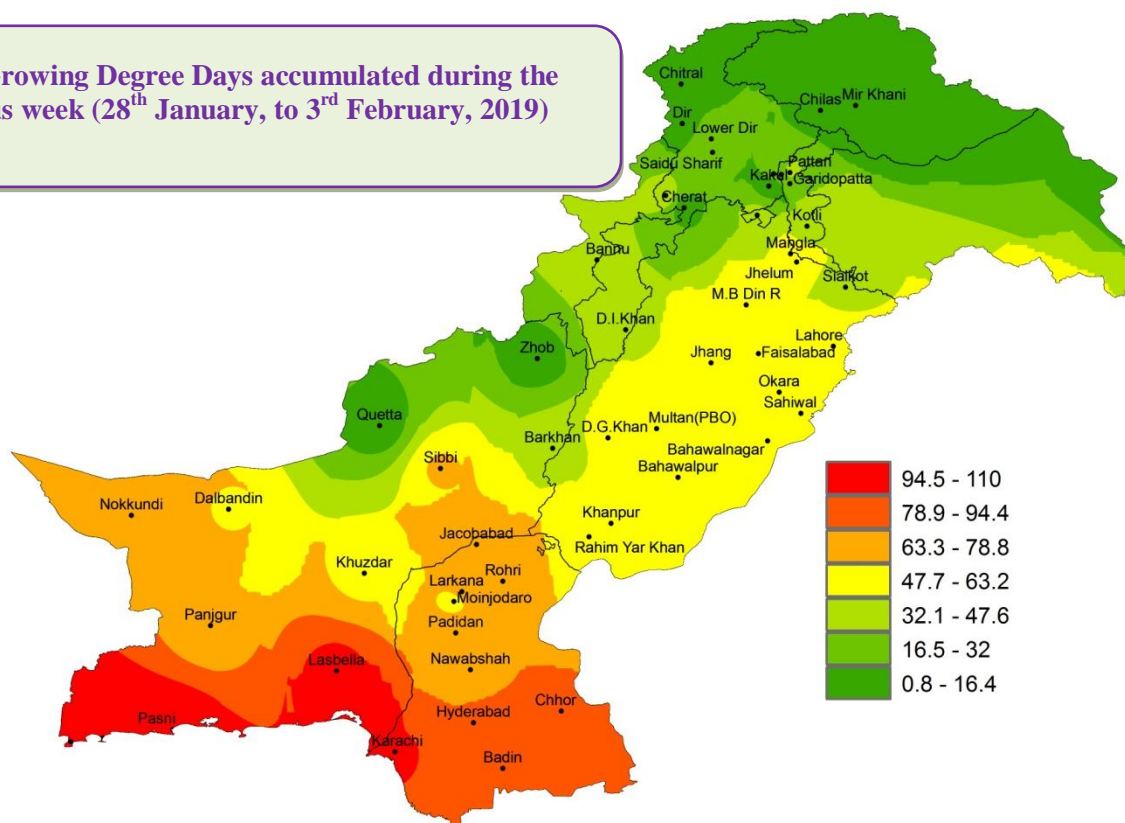
**Lowest Minimum Temperature (°C) during the
Previous week (28th January, to 3rd February, 2019)**



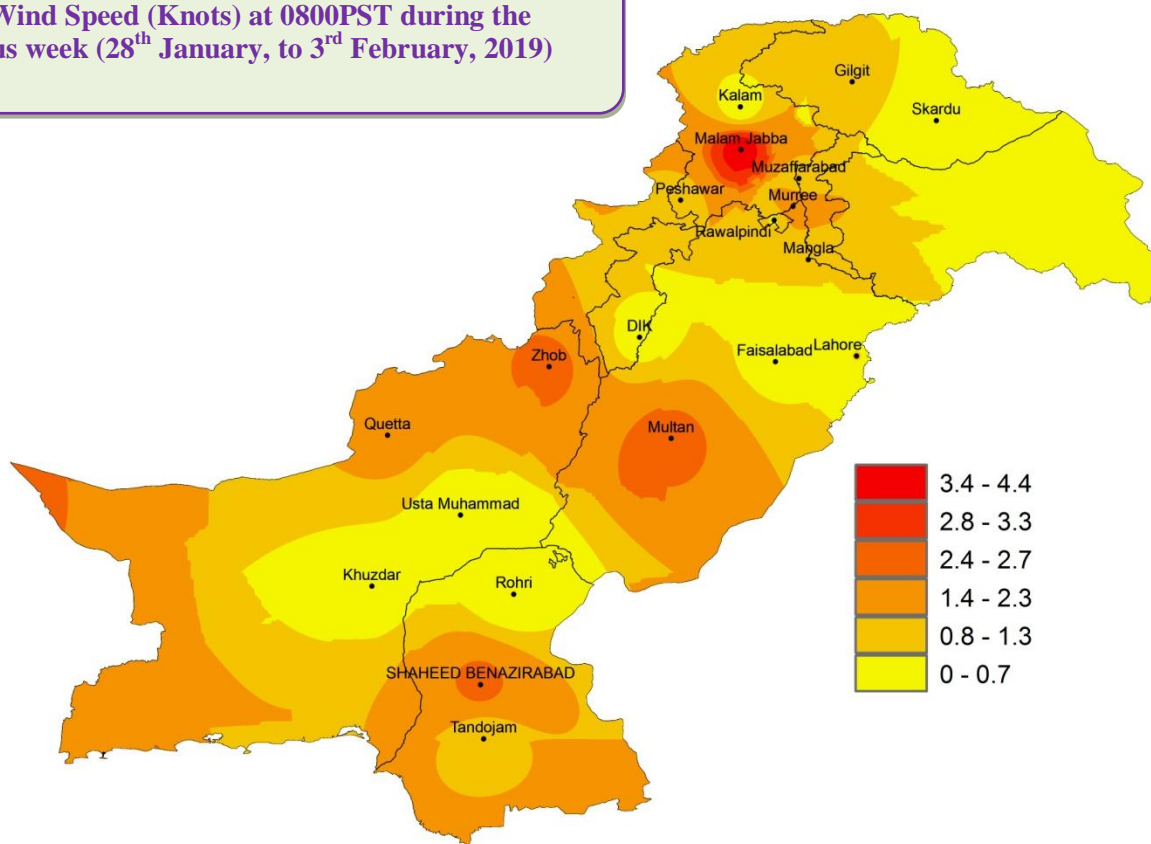
Mean Relative Humidity (%) during the
Previous week (28th January, to 3rd February, 2019)



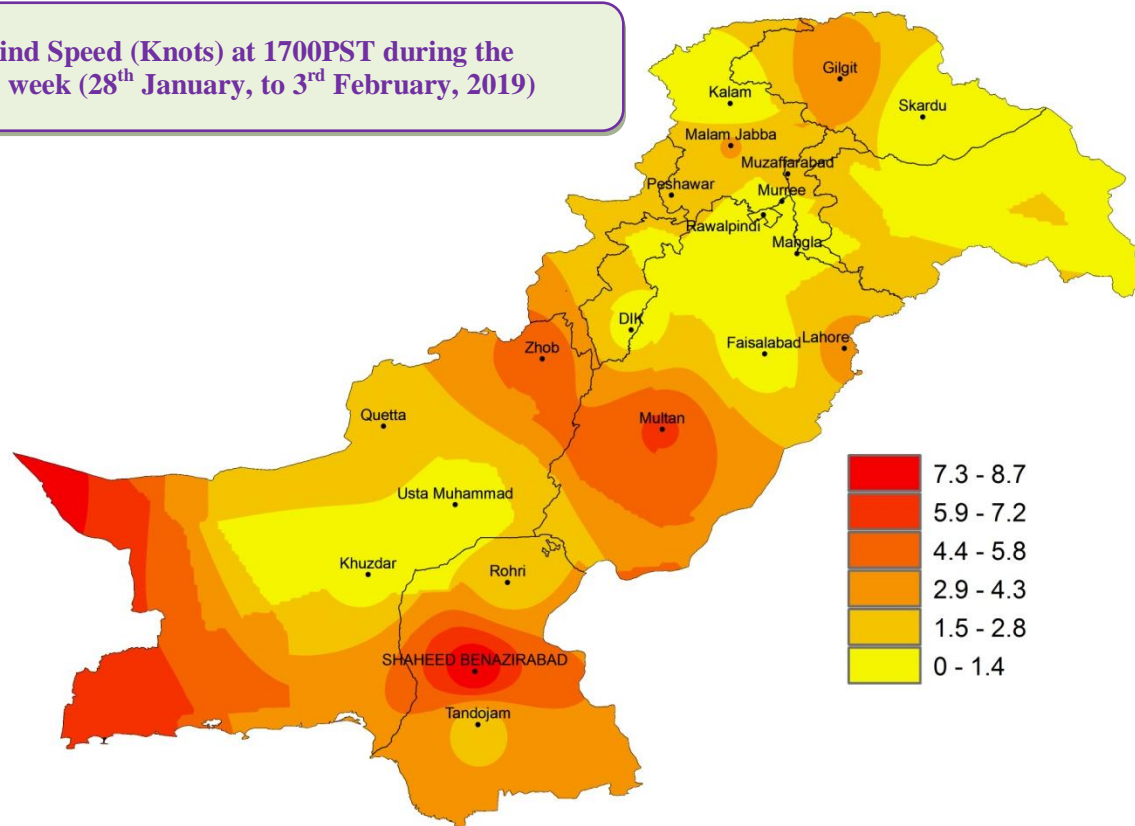
Total Growing Degree Days accumulated during the
Previous week (28th January, to 3rd February, 2019)



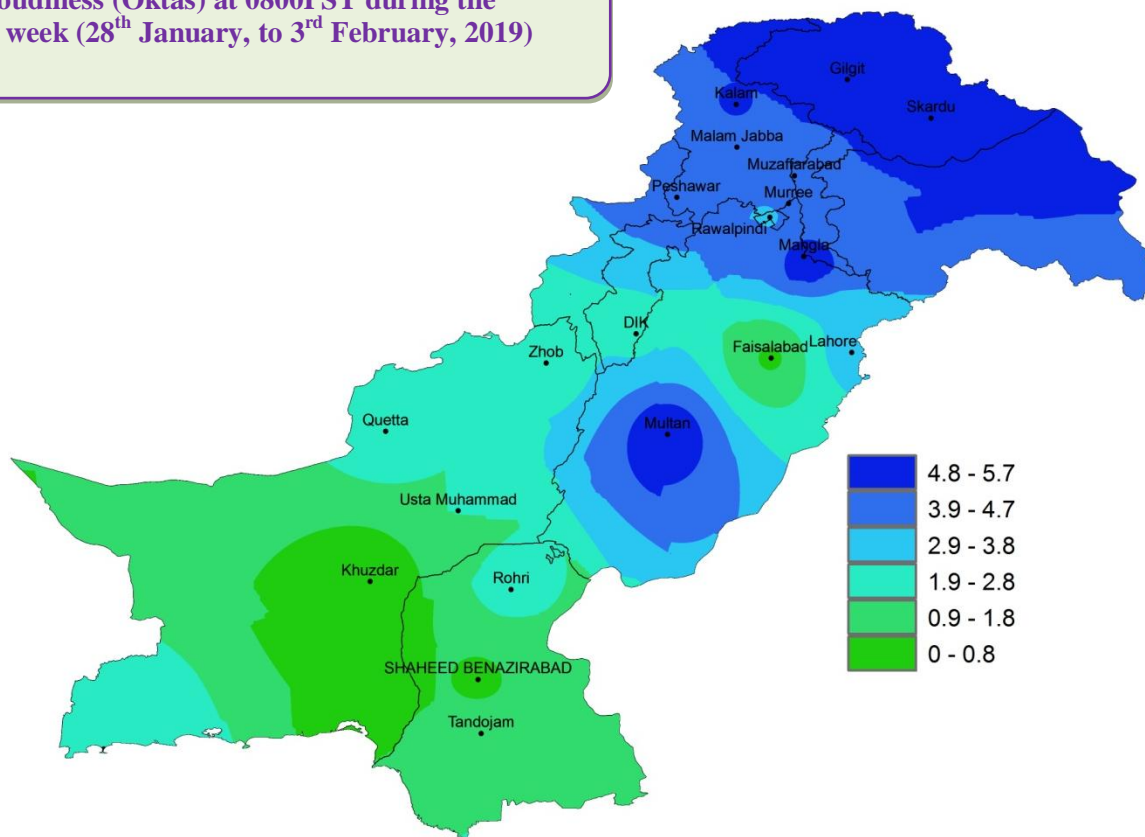
Mean Wind Speed (Knots) at 0800PST during the Previous week (28th January, to 3rd February, 2019)



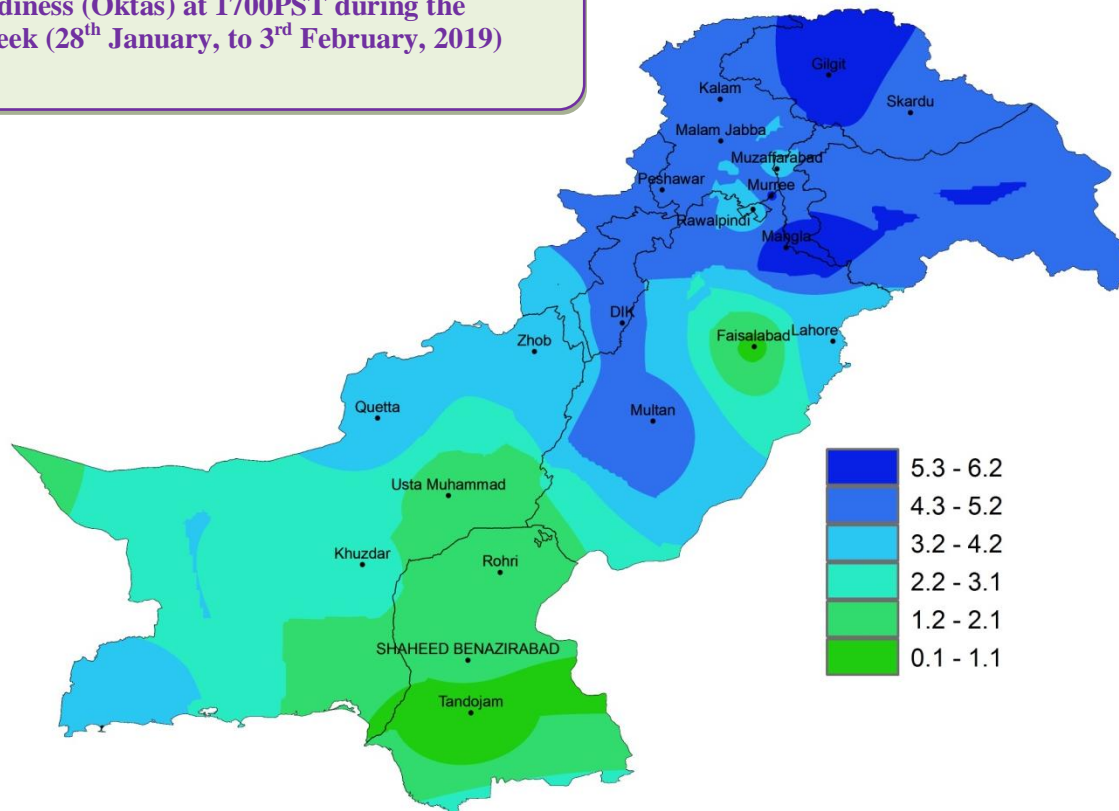
Mean Wind Speed (Knots) at 1700PST during the Previous week (28th January, to 3rd February, 2019)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (28th January, to 3rd February, 2019)



Mean Cloudiness (Oktas) at 1700PST during the Previous week (28th January, to 3rd February, 2019)



Weekly Weather Advisory for Farmers
(4th February to 10th February, 2019)

Westerly wave is affecting western parts of the country and likely to grip upper parts on Tuesday and may persist till Wednesday.

MONDAY

21-01-2019

Cloudy weather conditions are expected in most parts of the country. However, rain (with snowfall over the hills) is expected at scattered places in Balochistan (Quetta, Kalat, Zhob, Makran divisions), while at isolated places in Malakand, Kohat divisions, Kashmir and Gilgit-Baltistan.

TUESDAY

22-01-2019

Widespread rain thunderstorm is expected in upper Khyber Pakhtunkhwa (Malakand, Hazara, Peshawar, Mardan, Kohat divisions), northeast Punjab (Rawalpindi, Gujranwala, Lahore divisions), Islamabad, Gilgit-Baltistan and Kashmir, while at scattered places in Quetta, Kalat, Zhob, Makran, Bannu, D.I.Khan, Sargodha and Multan divisions. Snowfall over hills is also expected in Malakand division (Swat, Chitral, Kalam, Malamjabba & upper Dir), Hazara, Quetta divisions, Murree, Galliyat, Kashmir and Gilgit-Baltistan during the period.

WEDNESDAY

23-01-2019

Widespread rain thunderstorm is expected in upper Khyber Pakhtunkhwa (Malakand, Hazara, Peshawar, Mardan, Kohat divisions), northeast Punjab (Rawalpindi, Gujranwala, Lahore divisions), Islamabad, Gilgit-Baltistan and Kashmir, while at scattered places in Bannu, D.I.Khan, Sargodha, Faisalabad, Multan, Bahawalpur, D G Khan, Sahiwal divisions, at isolated places in Quetta, Kalat, Zhob, Sukkur, Larkana divisions. Snowfall over hills is also expected in Malakand division (Swat, Chitral, Kalam, Malamjabba & upper Dir), Hazara, Quetta divisions, Murree, Galliyat, Kashmir and Gilgit-Baltistan during the period.

THURSDAY

24-01-2019

Rain thunderstorm with snowfall over the hills is expected at scattered places in northeast Punjab (Rawalpindi, Gujranwala, Lahore divisions) and Kashmir, while at isolated places in Malakand, Hazara, Peshawar, Kohat divisions, Islamabad and Gilgit-Baltistan. Cold and dry weather is expected elsewhere in the country.

FRIDAY

25-01-2019

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

SATURDAY

26-01-2019

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

SUNDAY

27-01-2019

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

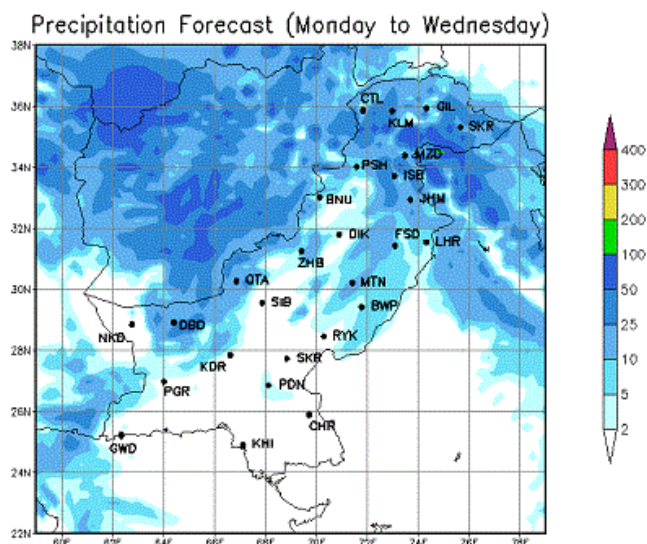
ADVISES FOR FARMERS

During the last week, light rainfall occurred at scattered places in GB and upper KP, while cold 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.

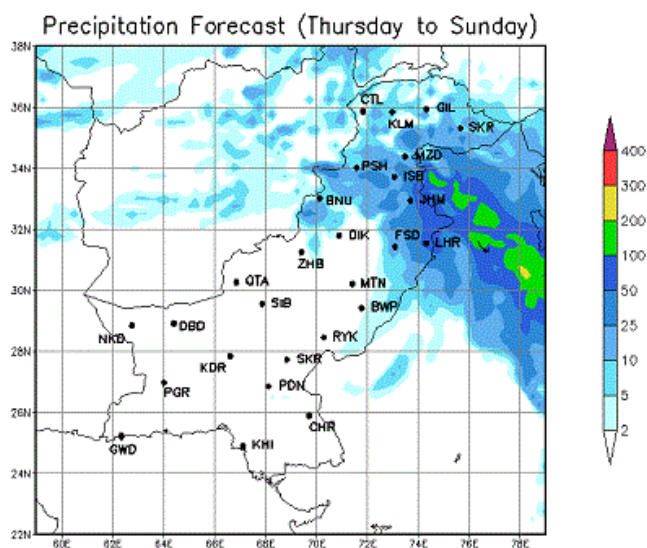
- Farmers are advised to use ensured the proper removal of weeds from the Rabi crops.
- Precautions should be taken to keep the nurseries & vegetables from severe frost conditions.
- Irrigate the crops when needed.

Weather Outlook from 4th February to 10th February, 2019

The outlook from 4th February to 6th February, 2019 shows that light to moderated rain is expected in GB, Khyber Pakhtunkhwa, Punjab and many areas of Baluchistan.



The outlook from 7th February to 10th February, 2019 shows that light to moderate rainfall is expected in KP, GB and upper half of Punjab while heavy rainfall is expected in Kashmir. However, cold and dry weather will prevail over rest of the country.



National Weather Data of Selected Cities Weekly Data from 28th January to 3rd February, 2019

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							
D.I.Khan	4.4	2.5	46.3	76	27.00	2.7	4.3	0.3	1.0
Faisalabad	5.6	3.0	50.5	71	10.80	0.7	0.9	0.4	0.5
Gawader	14.1	13.0	108.5	72	12.10	2.7	3.5	1.7	6.3
Gilgit	-0.4	-1.0	-5.0	68	1.90	5.7	6.0	1.0	4.0
Kalam	-9.8	-15.5	-48.3	80	4.00	4.8	4.3	0.0	0.0
Khuzdar	5.0	1.5	58.0	31	4.00	0.0	2.3	0.3	1.0
Lahore	7.1	5.0	55.5	67	7.11	3.2	4.2	0.7	3.3
Malam Jabba	-5.3	-6.5	***	75	39.00	4.0	4.3	4.0	3.0
Mangla	5.5	2.5	49.7	67	33.80	5.0	5.8	0.7	1.3
Multan (PBO)	7.0	5.4	52.9	76	8.90	5.3	4.8	2.7	6.0
Murree	-1.6	-2.8	-18.4	67	39.20	4.0	5.3	2.3	1.3
Muzaffarabad	0.7	-1.2	15.2	65	14.50	4.0	4.0	0.8	2.0
Nawabshah	8.1	6.5	77.5	60	3.00	0.7	1.7	2.7	8.7
Peshawar	5.1	2.5	43.0	62	22.01	4.2	5.0	1.0	1.6
Quetta	1.7	-1.4	13.9	56	28.80	2.3	4.0	1.8	2.5
Rawalakot	1.7	-0.5	34.3	75	39.40	3.7	3.4	0.6	0.6
Rawalpindi	7.9	7.0	67.3	61	5.00	2.0	1.3	0.0	2.0
Rohri	-13.2	-19.6	***	75	7.91	5.0	4.8	0.0	0.0
Skardu	8.0	7.0	77.5	66	2.00	1.1	0.1	0.9	1.7
Tandojam	6.9	5.0	58.5	74	0.00	1.8	1.4	0.2	0.8
Usta.M	0.5	0.0	7.5	64	7.00	2.3	3.5	2.5	5.0
Zhob	4.4	2.5	46.3	76	27.00	2.7	4.3	0.3	1.0

*** 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)