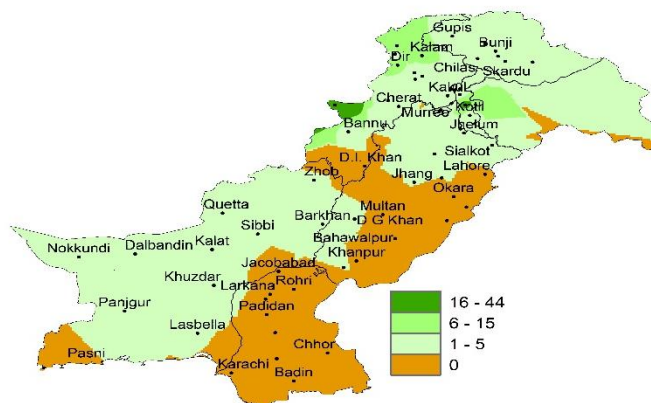


Weekly Weather and Crop Bulletin for Pakistan

**NATIONAL AGROMET CENTRE
PAKISTAN METEOROLOGICAL
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Rainfall Distribution (mm) during the Previous Week (7th– 13th March, 2022)

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Highlights of Past Weather (7th – 13th March, 2022)

Above normal night time temperatures were observed all over the country during the last week.

Rainfall reported as follows during the last week:

1. Light to moderate rainfall reported from upper Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan.
2. Light rainfall reported from a few stations in upper Punjab and northeast Baluchistan.

Patron-in-Chief: Mahr Sahibzad Khan (Director General)

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

Editor: Ruqiya Mehmood (Assistant Meteorologist)

Past Weather of Provinces (7th – 13th March, 2022)**Punjab**

Light rainfall reported from a few stations in upper Punjab during the week. Weekly maximum and minimum temperatures recorded as 29.1°C & 14.2°C respectively. For the recent week on average 116.7 growing degree days were accumulated. Average relative humidity recorded as 55% and wind speed in the morning/evening recorded as 1.5/3.2 Knots. During the previous week the highest precipitation was observed as 3.2 mm at Jhelum while the lowest minimum temperature was recorded as 3.0°C at Murree.

Baluchistan

Light rainfall reported from a few stations in northeast Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 29.0°C & 13.8°C respectively. For the recent week on average 110.7 growing degree days were accumulated. Average relative humidity recorded as 51% and wind speed in the morning/evening recorded as 1.1/4.8 Knots. During the previous week the highest precipitation was observed as 4.6 mm at Khuzdar while the lowest minimum temperature was recorded as 3.0°C at Kalat.

Khyber Pakhtunkhwa

Light to moderate rainfall reported from upper Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 21.3°C & 7.8°C respectively. For the recent week on average 66.5 growing degree days were accumulated. Average relative humidity recorded as 67% and wind speed in the morning/evening recorded as 0.9/1.8 Knots. During the previous week the highest precipitation was observed as 44.0 mm at Parachinar while the lowest minimum temperature was recorded as -2.0°C at Kalam.

Sindh

Dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 34.5°C & 17.7°C respectively. For the

recent week on average 147.6 growing degree days were accumulated. Average relative humidity recorded as 54% and wind speed in the morning/evening recorded as 2.8/3.3 Knots. During the lowest minimum temperature was recorded as 13.0°C at Mirpurkhas.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from Gilgit-Baltistan, Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 20.1°C & 6.2°C respectively. For the recent week on average 55.5 growing degree days were accumulated. Average relative humidity recorded as 54% and wind speed in the morning/evening recorded as 2.8/3.3 Knots. During the previous week the highest precipitation was observed as 20.0 mm at Rawalakot while the lowest minimum temperature was recorded as 0.2°C at Rawalakot.

Past Weather for Major Agricultural Plains**(7th – 13th March, 2022)****Rawalpindi (Potohar region)**

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.7/4.6 Oktas while, average relative humidity observed as 66%. Mean night time temperature recorded as 10.0°C & for the recent week 95.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/1.4 Knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.3/1.9 Oktas while, average relative humidity observed as 61%. Mean night time temperature recorded as 14.4°C & for the recent week 119.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/0.9 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.4/0.4 Oktas while, average relative humidity observed as 54%. Mean night time temperature recorded as 16.3°C & for the recent week 143.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.2/2.0 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 2.1/2.0 Oktas while, average relative humidity observed as 65%. Mean night time temperature recorded as 12.9°C & for the recent week 117.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.4/0.1 Knots.

Quetta (Northern Baluchistan)

Rainfall reported as 3.2 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 3.9/3.4 Oktas while, average relative humidity observed as 49%. Mean night time temperature recorded as 8.0°C & for the recent week 71.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.6/3.1 Knots.

Past Weather for Sub-Regional Agricultural**Plains (7th – 13th March, 2022)****Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.1/2.0 Oktas while, average relative humidity observed as 57%. Mean night time temperature recorded as 16.6°C & for the recent week 130.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.0/4.0 Knots.

Lahore

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.0/2.0 Oktas while, average relative humidity observed as 56%. Mean night time temperature recorded as 16.5°C & for the recent week 124.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/5.0 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 4.3/3.4 Oktas while, average relative humidity observed as 49%. Mean night time temperature recorded as 9.1°C & for the recent week 76.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.4/4.1 Knots.

Murree

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 3.0/4.4 Oktas while, average relative humidity observed as 52%. Mean night time temperature recorded as 8.1°C & for the recent week 59.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.6/0.6 Knots.

D.I. Khan

Dry weather reported from D.I.Khan during the week; however, cloudiness in the morning/evening recorded as 0.3/2.3 Oktas while, average relative humidity observed as 66%. Mean night time temperature recorded as 14.7°C & for the recent week 120.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/0.9 Knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 4.7/6.3 Oktas while, average relative humidity observed as 63%. Mean night time temperature recorded as 12.6°C & for the recent week 105.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/2.0 Knots.

Kalam

Rainfall reported as 8.3 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 5.1/4.7 Oktas while, average relative humidity observed as 46%. Mean night time temperature recorded as 0.2°C & for the recent week 2.3 growing degree days accumulated. 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 5.9/6.9 Oktas while, average relative humidity observed as 46%. Mean night time temperature recorded as 7.2°C & for the recent week 66.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/1.4 Knots.

Skardu

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.7/4.7 Oktas while, average relative humidity observed as 46%. Mean night time temperature recorded as 2.0°C & for the recent week 25.6 growing degree days accumulated. Calm weather observed in the morning/evening.

**Crop Condition for Major Agricultural Plains
(Based on data from Regional Agromet Centers)****Potohar Region (Rawalpindi)**

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

Central Punjab (Faisalabad)

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

Wheat: Very Good, Flowering Stage Completed.

Lower Sindh (Tandojam)

Presently Wheat crop is sown in the fields of RAMC Tandojam.

Wheat (TD-I): Good, Full Maturity Stage.

Northern Baluchistan (Quetta)

Presently Wheat crop is sown in the fields of RAMC Quetta.

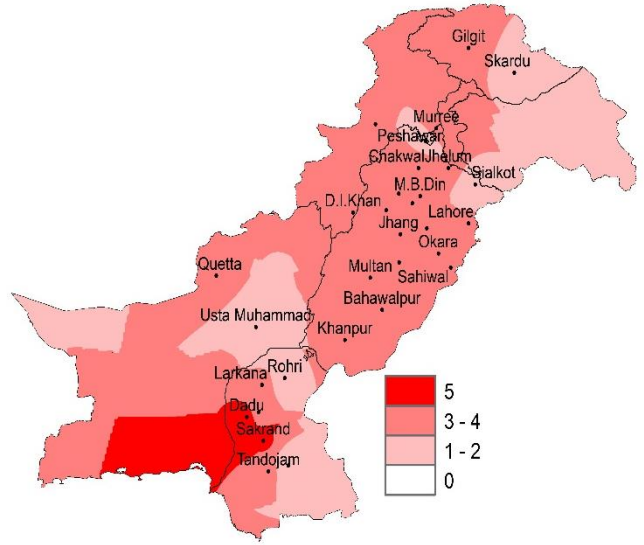
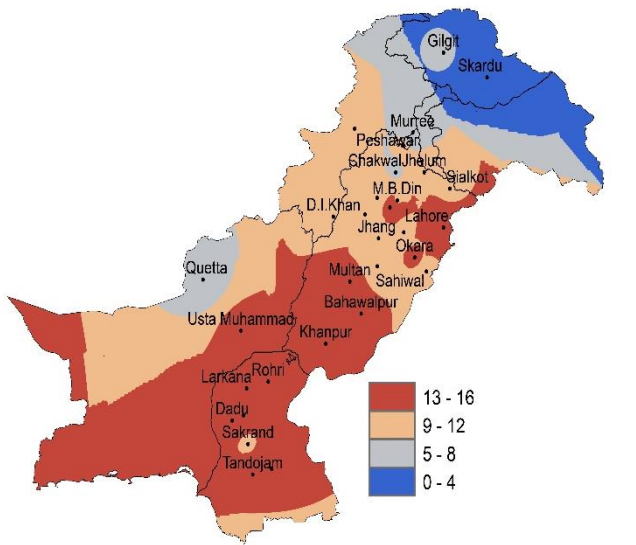
Wheat: Good, Tillering Stage.

Eastern Baluchistan (Usta Muhammad)

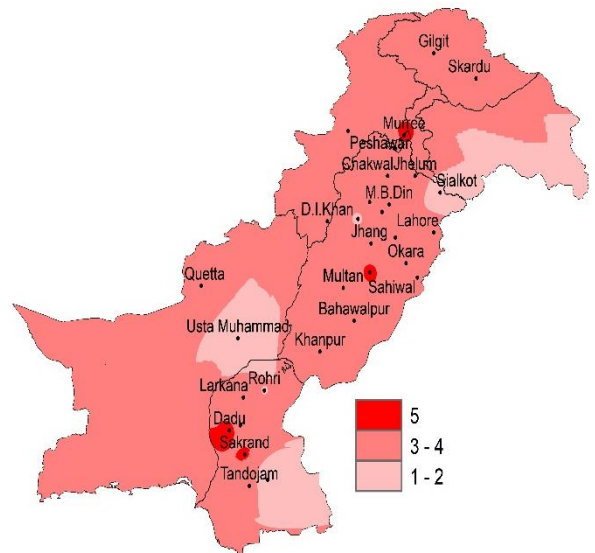
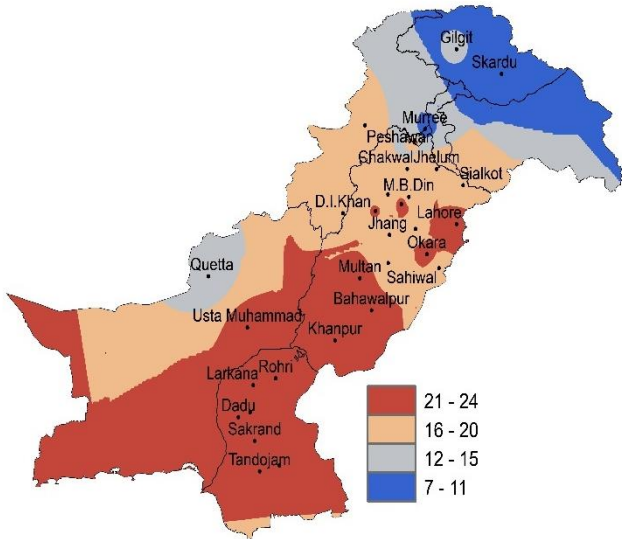
Presently Wheat crop is sown in the fields of RAMC Usta Muhammad.

Wheat: Good, Shooting Stage.

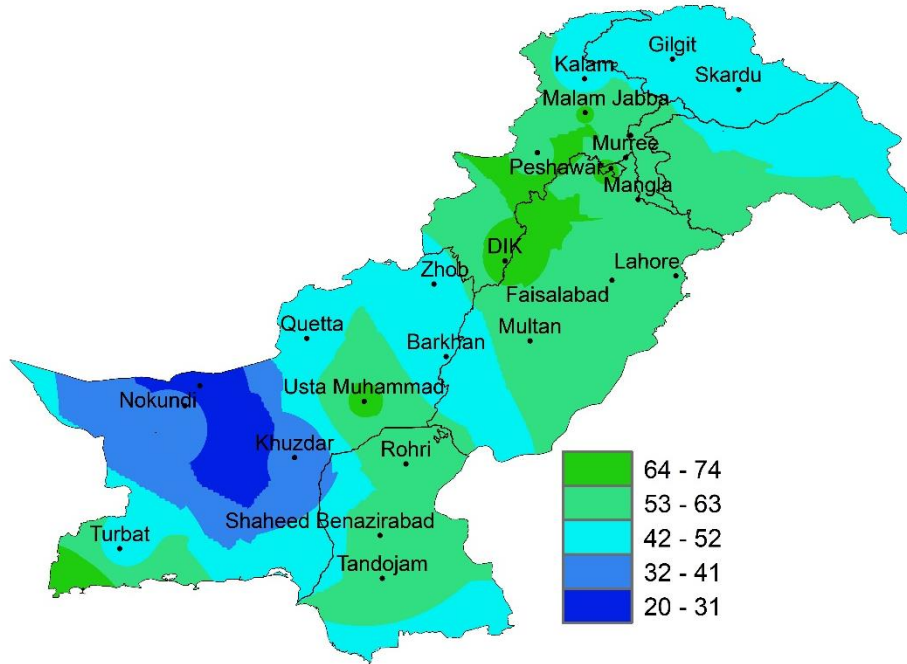
Normal & Departure of Minimum temperature (°C) for the previous week (7th – 13th March, 2022)



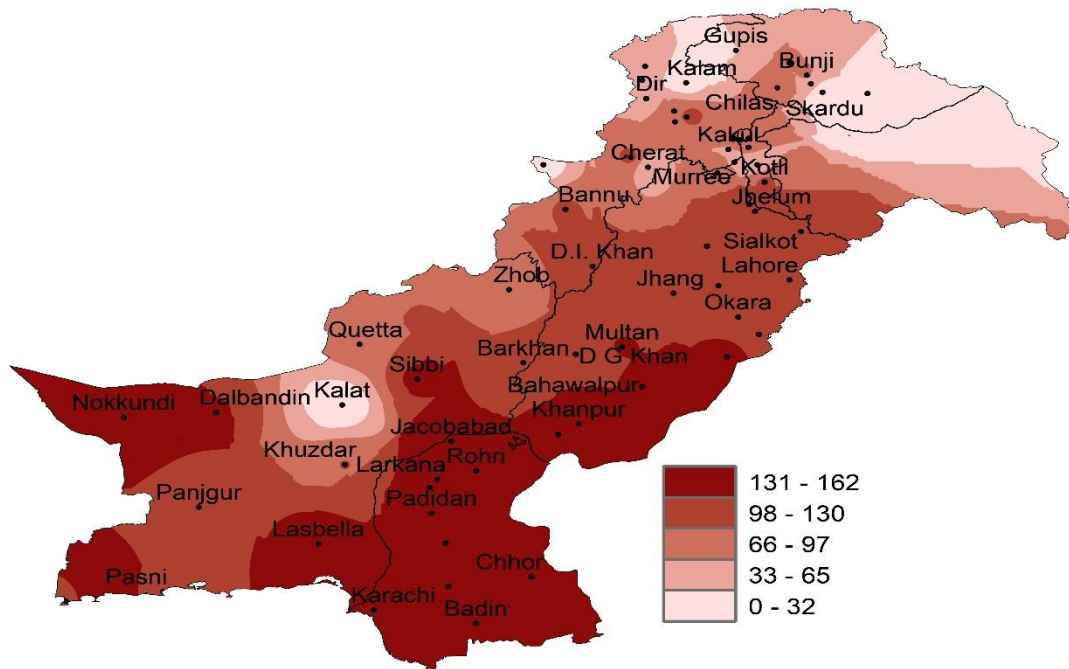
Normal & Departure of Mean temperature (°C) for the previous week (7th – 13th March, 2022)



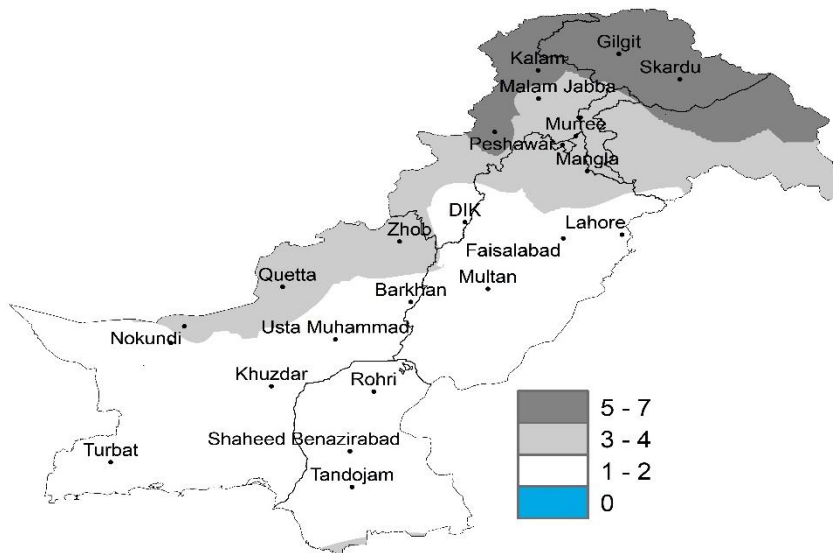
Mean Relative Humidity (%) during the previous week (7th – 13th March, 2022)



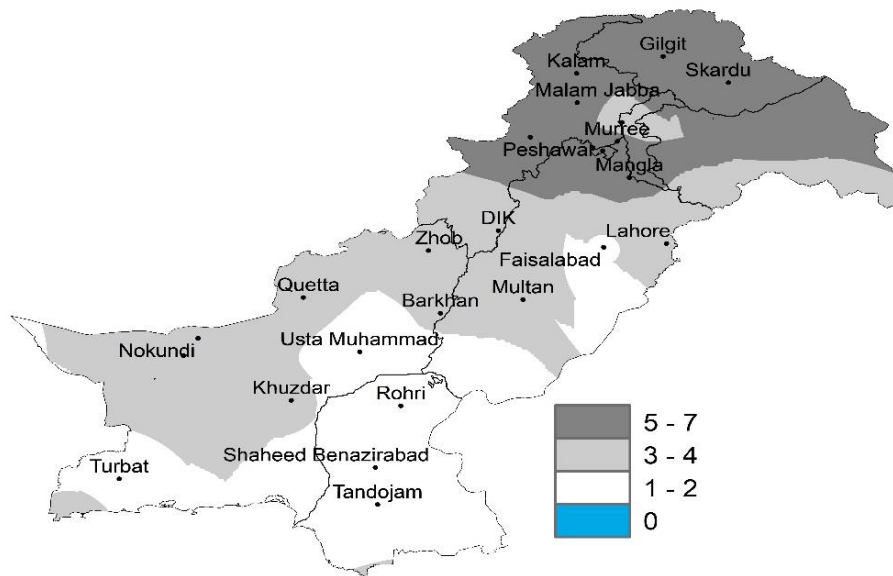
Total Growing Degree Days accumulated during the previous week (7th – 13th March, 2022)



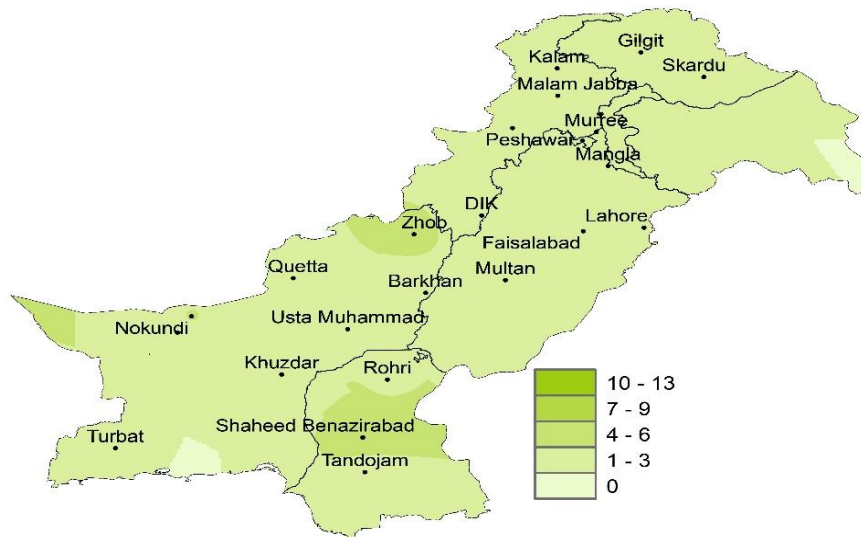
Mean Cloudiness (Oktas) at 0800PST during the previous week (7th – 13th March, 2022)



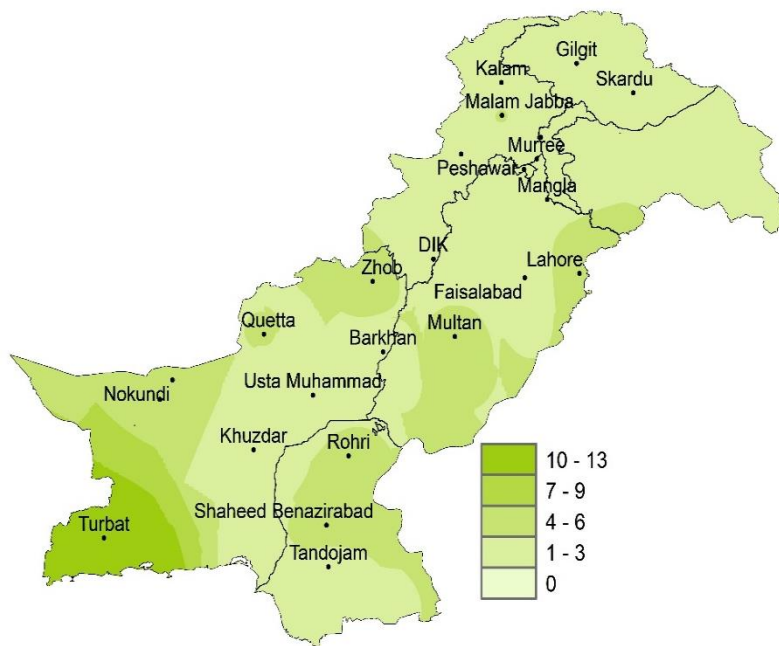
Mean Cloudiness (Oktas) at 1700PST during the previous week (7th – 13th March, 2022)



Mean Wind Speed (Knots) at 0800PST during the previous week (7th – 13th March, 2022)



Mean Wind Speed (Knots) at 1700PST during the previous week (7th – 13th March, 2022)



Weekly Weather Advisory for Farmers**(14th – 20th March, 2022)**

Continental air is prevailing over most parts of the country.

MONDAY**14-03-2022**

Mainly dry weather is expected in most parts of the country, while hot in plain areas of the country.

TUESDAY**15-03-2022**

Mainly dry weather is expected in most parts of the country, while hot in plain areas of the country.

WEDNESDAY**16-03-2022**

Mainly dry weather is expected in most parts of the country. Day time temperatures are likely to increase gradually in plain areas of the country.

THURSDAY**17-03-2022**

Mainly dry weather is expected in most parts while, hot in plain areas of the country. Day time temperatures are likely to increase gradually in plain areas of the country.

FRIDAY**18-03-2022**

Mainly dry weather is expected in most parts while, hot in plain areas of the country. However, rain-thunderstorm is expected at isolated places in upper Khyber Pakhtunkhwa and adjoining areas of Gilgit Baltistan.

SATURDAY**19-03-2022**

Mainly dry weather is expected in most parts while, hot in plain areas of the country. However, rain-thunderstorm is expected at isolated places in upper Khyber Pakhtunkhwa, Kashmir and Gilgit Baltistan.

SUNDAY**20-03-2022**

Mainly dry weather is expected in most parts while, hot in plain areas of the country. However, rain-thunderstorm is expected at isolated places in upper Khyber Pakhtunkhwa, Kashmir and Gilgit Baltistan.

ADVISORY FOR FARMERS

During the last week, light to moderate rainfall reported from upper Khyber Pakhtunkhwa, Kashmir and Gilgit-Baltistan. Light rainfall reported from a few stations in upper Punjab and northeast Baluchistan. Keeping in view the expected weather conditions farmers are advised the following advisories.

- Farmers are advised to ensure the proper removal of weeds from the Rabi crops.
- Irrigate the crops according to its need.

National Weather Data of Selected Cities from (7th - 13th March, 2022)

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	Minimum							
Barkhan	12.7	10.0	104.2	43	0.0	0.7	2.1	1.1	2.0
Dalbandin	15.4	12.0	131.8	36	0.0	1.6	4.0	0.9	6.0
D.I. Khan	14.7	12.5	120.0	66	0.0	0.3	2.3	0.9	0.9
Faisalabad	14.4	13.0	119.9	61	0.0	1.3	1.9	0.6	0.9
Gawadar	20.2	19.0	145.0	74	0.0	2.0	2.3	0.0	10.3
Gilgit	7.2	5.0	66.4	46	0.0	5.9	6.9	0.3	1.4
Kalam	0.2	-2.0	2.3	46	8.3	5.1	4.7	0.0	0.6
Khuzdar	10.8	10.0	97.8	31	4.6	0.3	2.4	0.0	0.0
Lahore	16.5	15.7	124.6	56	0.0	0.0	2.0	0.0	5.0
Malam Jabba	3.3	2.0	19.3	64	2.0	4.0	4.7	2.3	3.1
Mangla	13.0	11.7	111.4	62	1.8	4.3	4.6	0.6	2.6
Multan	16.6	14.3	130.1	57	0.0	1.1	2.0	2.0	4.0
Murree	8.1	3.0	59.1	52	0.0	3.0	4.4	2.6	0.6
Muzaffarabad	9.0	8.0	88.9	62	0.0	2.3	3.1	0.0	0.3
Nawabshah	17.7	16.5	151.3	53	0.0	0.3	0.9	4.6	4.3
Nokkundi	18.7	16.0	147.3	20	0.0	2.4	4.0	2.9	3.1
Peshawar	12.6	11.5	105.9	63	0.0	4.7	6.3	0.6	2.0
Quetta	8.0	5.2	71.6	49	3.2	3.9	3.4	2.6	3.1
Rawalpindi	10.0	8.7	95.7	66	0.0	2.7	4.6	0.3	1.4
Rohri	17.3	16.8	142.6	55	0.0	0.0	0.0	2.6	3.7
Skardu	2.0	0.4	25.6	46	0.0	4.7	4.7	0.0	0.6
Tandojam	16.3	13.0	143.8	54	0.0	0.4	0.4	1.2	2.0
Turbat	18.6	17.5	152.3	49	0.0	1.0	1.3	0.0	12.6
Usta Muhammad	14.6	10.0	122.3	65	0.0	0.0	0.2	1.7	0.8
Zhob	9.1	7.0	76.5	49	0.0	4.3	3.4	3.4	4.1

*** 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)