

Weekly Weather and Crop Bulletin for Pakistan

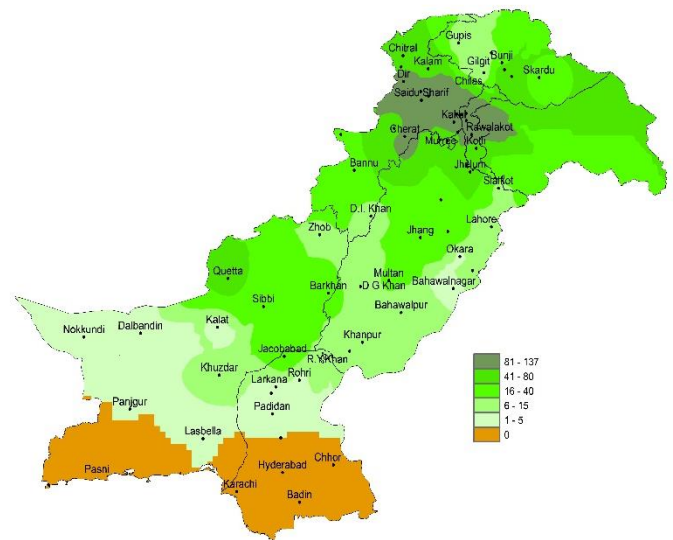
NATIONAL AGROMET CENTRE PAKISTAN
METEOROLOGICAL DEPARTMENT SECTOR H-8/2,

ISLAMABAD

Phone: +92-51-9250299

Email: dirnamc@yahoo.com

Rainfall Distribution (mm) during the Previous Week (22nd – 28th March, 2021)



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Highlights of Past Weather (22nd - 28th March, 2021)

Above normal night time temperatures were observed in Sindh, below normal in Punjab, Khyber Pakhtunkhwa, while mix trend was observed in Baluchistan, Kashmir and Gilgit-Baltistan during the last week.

Rainfall reported as follows during the last week:

1. Light to moderate rainfall reported from Punjab, Khyber Pakhtunkhwa, northeast Baluchistan, upper Sindh, Kashmir and Gilgit-Baltistan.

Patron-in-Chief: Muhammad Riaz (Director General)

Editor-in-Chief: Dr Muhammad Afzaal (Director)

Editor: Ruqiya Mehmood (Assistant Meteorologist)

Past Weather of Provinces (22nd – 28th March, 2021)**Punjab**

Light to moderate rainfall reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 28.3°C & 15.1°C respectively. For the recent week on average 117.1 growing degree days were accumulated. Average relative humidity recorded as 61% and wind speed in the morning/evening recorded as 1.6/3.6 Knots. During the previous week the highest precipitation was observed as 77.0 mm at Murree while the lowest minimum temperature was recorded as 3.5°C at Murree.

Baluchistan

Light to moderate rainfall reported from northeast Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 30.6°C & 14.5°C respectively. For the recent week on average 123.0 growing degree days were accumulated. Average relative humidity recorded as 47% and wind speed in the morning/evening recorded as 2.2/6.7 Knots. During the previous week the highest precipitation was observed as 55.0 mm at Quetta while the lowest minimum temperature was recorded as 4.0°C at Quetta.

Khyber Pakhtunkhwa

Light to moderate rainfall reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 20.0°C & 8.3°C respectively. For the recent week on average 64.2 growing degree days were accumulated. Average relative humidity recorded as 72% and wind speed in the morning/evening recorded as 1.4/1.6 Knots. During the previous week the highest precipitation was observed as 141.0 mm at Malamjabba while the lowest minimum temperature was recorded as -3.0°C at Kalam.

Sindh

Light to moderate rainfall reported from upper Sindh during the week. Weekly maximum and minimum temperatures recorded as 36.6°C &

19.3°C respectively. For the recent week, on average 160.4 growing degree days were accumulated. Average relative humidity recorded as 51% and wind speed in the morning/evening recorded as 2.1/3.4 Knots. During the previous week the highest precipitation was observed as 29.0 mm at Jacobabad while the lowest minimum temperature was recorded as 12.0°C at Jacobabad.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from Gilgit-Baltistan and Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 18.3°C & 6.2°C respectively. For the recent week on average 50.4 growing degree days were accumulated. Average relative humidity recorded as 62% and wind speed in the morning/evening recorded as 0.6/1.9 Knots. During the previous week the highest precipitation was observed as 133.7 mm at Rawalakot while the lowest minimum temperature was recorded as -0.5°C at Astore.

Past Weather for Major Agricultural Plains**(22nd – 28th March, 2021)****Rawalpindi (Potohar region)**

Rainfall reported as 26.7 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.3/4.1 Oktas while, average relative humidity observed as 72%. Mean night time temperature recorded as 12.2°C & for the recent week 98.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/0.9Knots.

Faisalabad (Central Punjab)

Rainfall reported as 29.4 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 2.1/1.0 Oktas while, average relative humidity observed as 65%. Mean night time temperature recorded as 15.1°C & for the recent week 118.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/1.1 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.8/1.2 Oktas while, average relative humidity observed as 54%. Mean night time temperature recorded as 15.6°C & for the recent week 149.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.3 Knots.

Usta Muhammad (Eastern Baluchistan)

Rainfall reported as 25.0 mm from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 0.8/1.2 Oktas while, average relative humidity observed as 56%. Mean night time temperature recorded as 16.9°C & for the recent week 142.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/0.5 Knots.

Quetta (Northern Baluchistan)

Rainfall reported as 3.6 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 1.4/2.1 Oktas while, average relative humidity observed as 33%. Mean night time temperature recorded as 8.2°C & for the recent week 76.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.5/3.6 Knots.

Past Weather for Sub-Regional Agricultural Plains (22nd – 28th March, 2021)**Multan**

Rainfall reported as 16.9 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 2.0/1.7 Oktas while, average relative humidity observed as 67%. Mean night time temperature recorded as 16.9°C & for the recent week 124.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/5.4 Knots.

Lahore

Rainfall reported as 7.0 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 2.6/1.0 Oktas while, average relative humidity observed as 59%. Mean night time temperature recorded as 17.2°C & for the recent week 127.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/3.4 Knots.

Zhob

Rainfall reported as 14.0 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 2.4/3.4 Oktas while, average relative humidity observed as 40%. Mean night time temperature recorded as 9.1°C & for the recent week 89.5 growing degree days accumulated. cloudiness in the morning/evening recorded as 5.4/6.7 Oktas.

Murree

Rainfall reported as 77.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 3.4/4.7 Oktas while, average relative humidity observed as 59%. Mean night time temperature recorded as 5.6°C & for the recent week 38.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.4/2.0 Knots.

D.I. Khan

Rainfall reported as 10.5 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 3.3/3.7 Oktas while, average relative humidity observed as 67%. Mean night time temperature recorded as 15.6°C & for the recent week 119.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.7 Knots.

Peshawar

Rainfall reported as 68.4 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 5.3/5.9 Oktas while, average relative humidity observed as 74%. Mean night time temperature recorded as 13.5°C & for the recent week 101.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/0.9 Knots.

Kalam

Rainfall reported as 64.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.4/6.9 Oktas while, average relative humidity observed as 78%. Mean night time temperature recorded as -1.8°C & for the recent week 2.3 growing degree days accumulated. Calm wind reported in the morning/evening.

Gilgit

Rainfall reported as 8.3 mm from Gilgit during the week. However, cloudiness in the morning/evening recorded as 5.7/6.4 Oktas while, average relative humidity observed as 53%. Mean night time temperature recorded as 7.9°C & for the recent week 65.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/4.0 Knots.

Skardu

Rainfall reported as 29.5 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.7/6.3 Oktas while, average relative humidity observed as 62%. Mean night time temperature recorded as 3.6°C & for the recent week 28.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.6 Knots.

**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 standing in the fields of RAMC Faisalabad.

Wheat: V. Good, Milk Maturity Stage Completed.

Lower Sindh (Tandojam)

Wheat crop was cultivated in the fields of RAMC Tandojam.

Wheat: Harvested on 19th March, 2021.

Northern Baluchistan (Quetta)

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

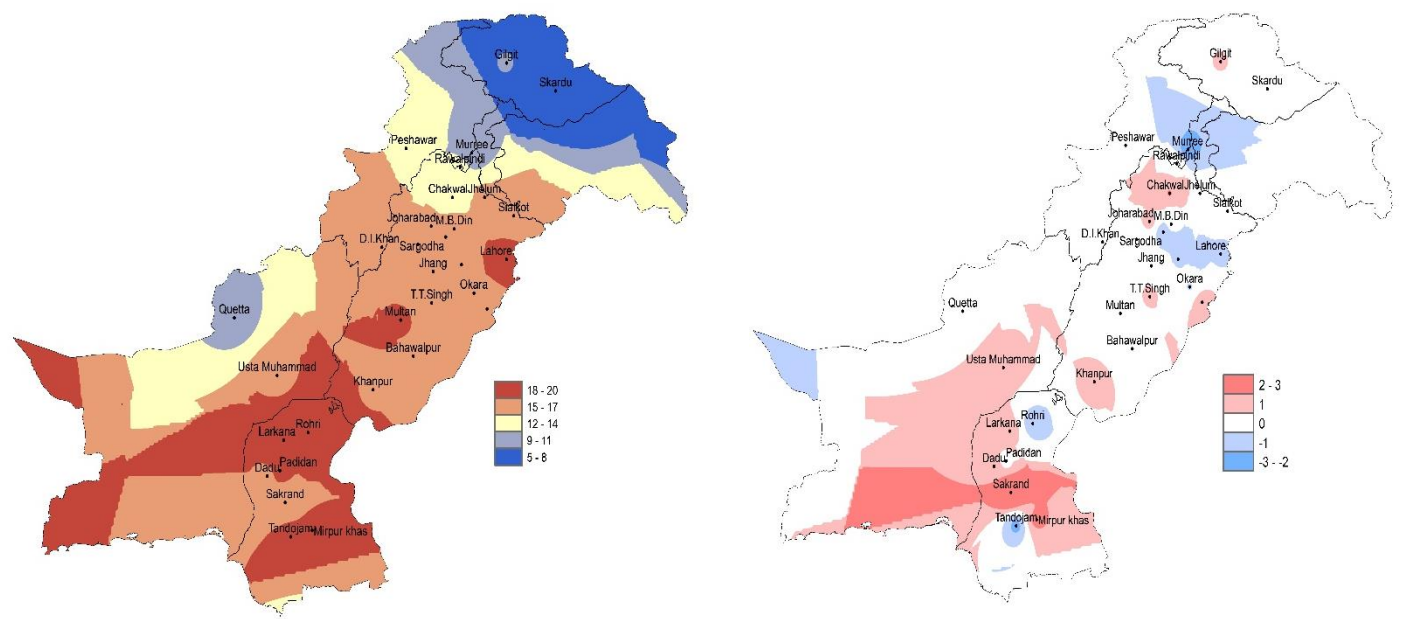
Wheat: Good, Crop Variety (Seriab-92), Tillering Stage.

Eastern Baluchistan (Usta Muhammad)

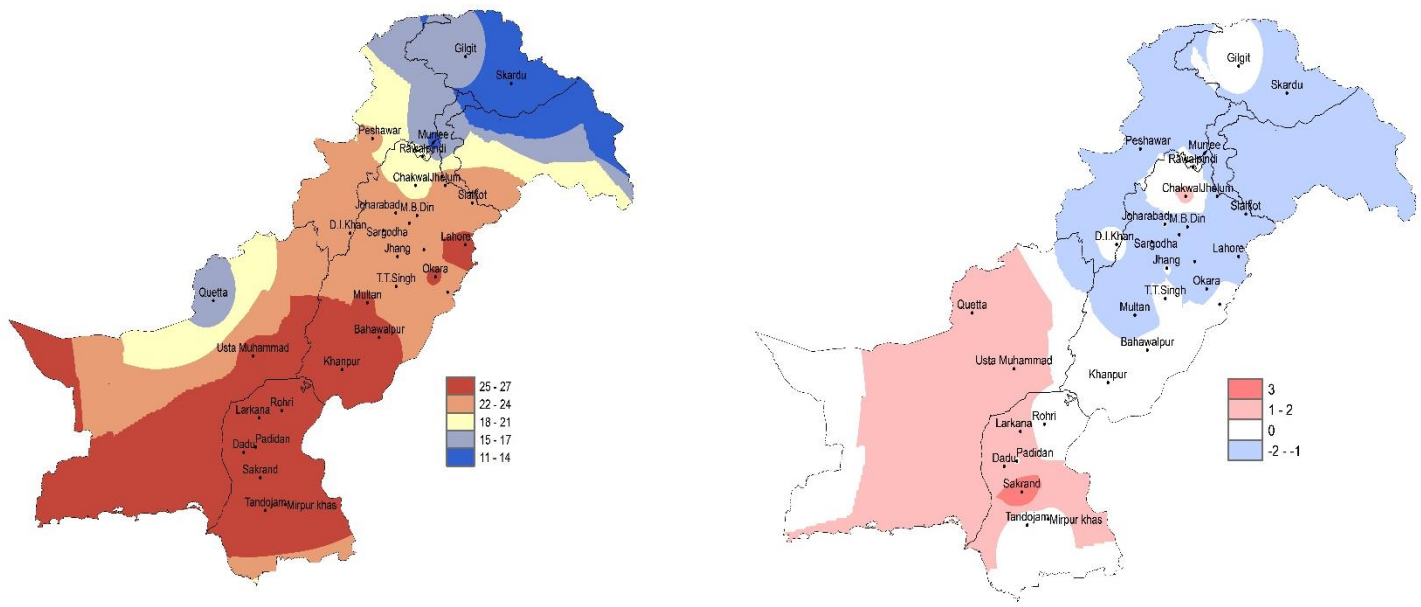
Presently wheat crop is sown in the fields of RAMC Usta Muhammad.

Wheat: Good, Milk Maturity Stage.

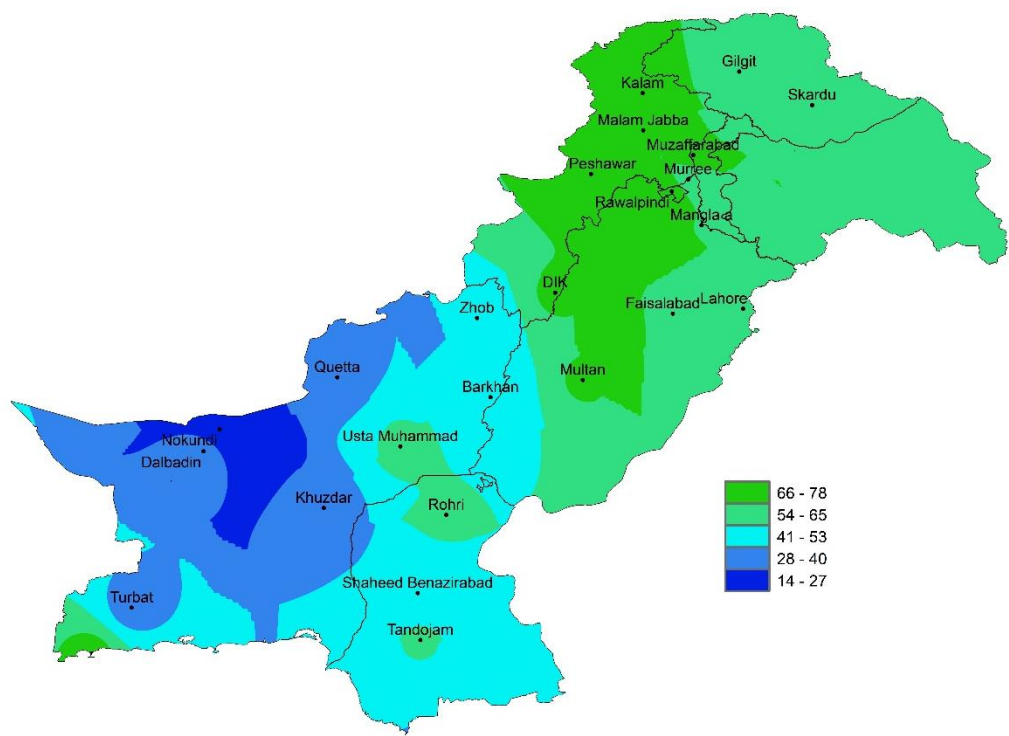
Normal & Departure of Minimum temperature (°C) for the previous week (22nd – 28th March, 2021)



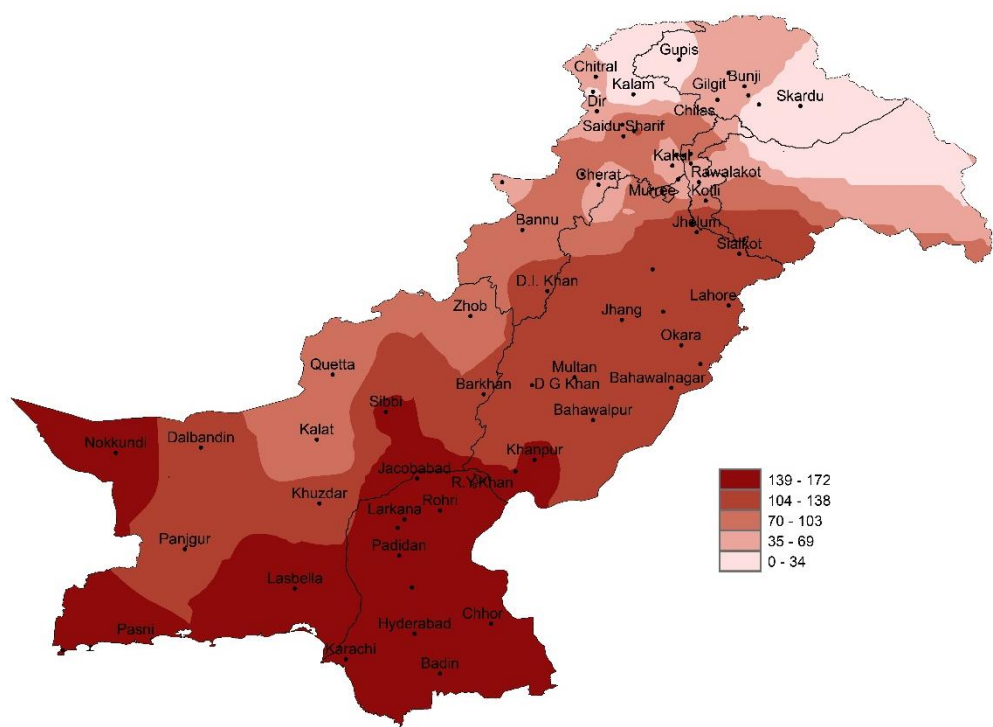
Normal & Departure of Mean temperature (°C) for the previous week (22nd – 28th March, 2021)



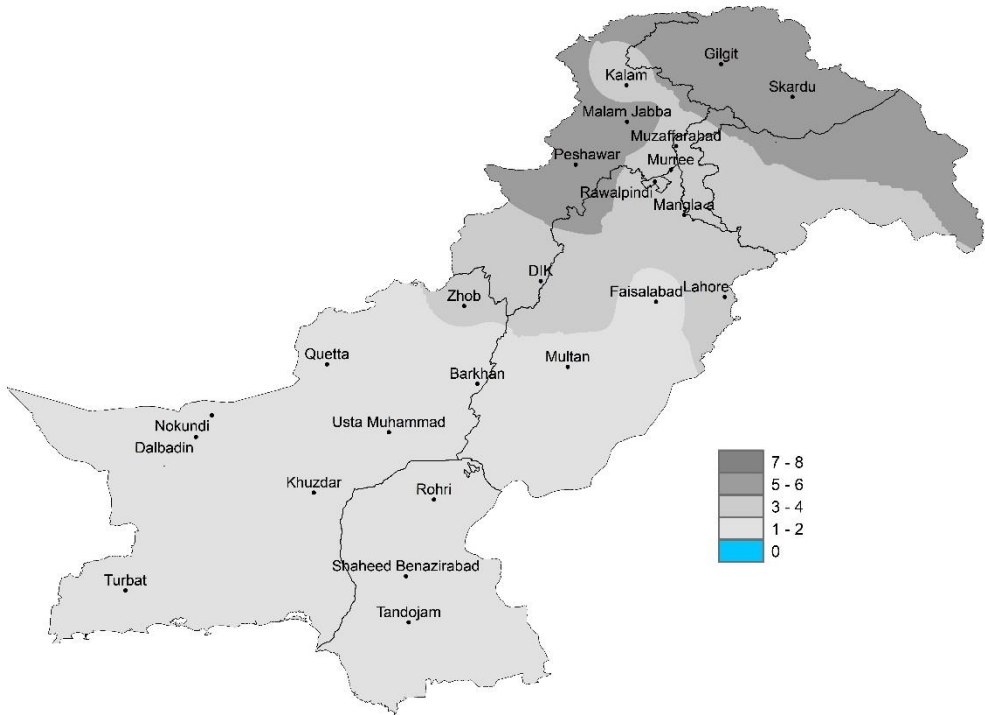
Mean Relative Humidity (%) during the previous week (22nd – 28th March, 2021)



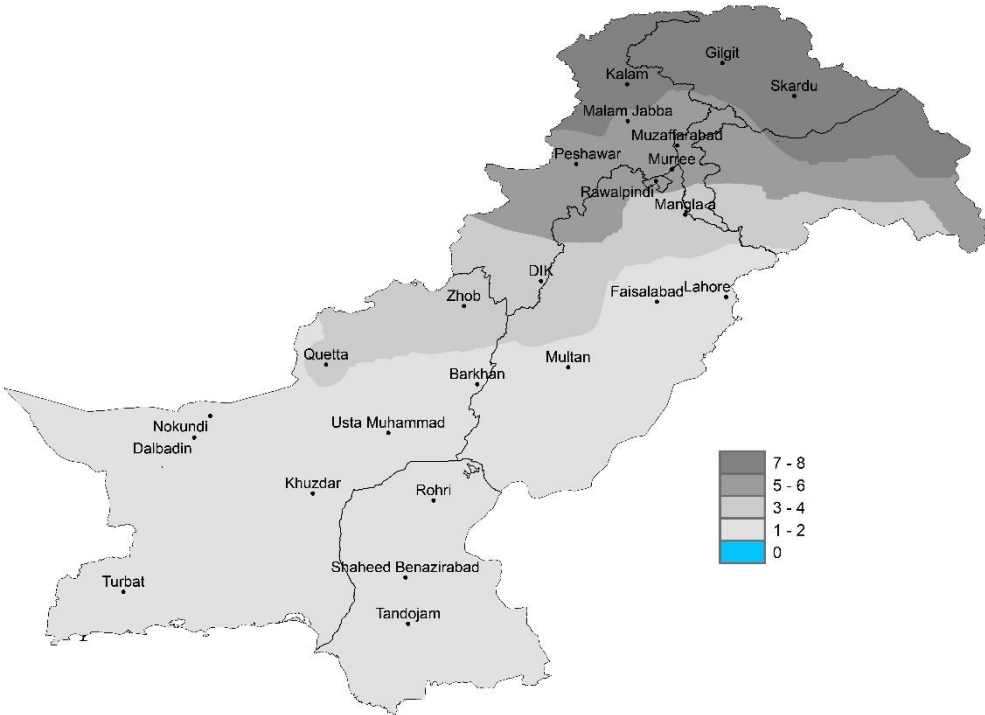
Total Growing Degree Days accumulated during the previous week (22nd – 28th March, 2021)



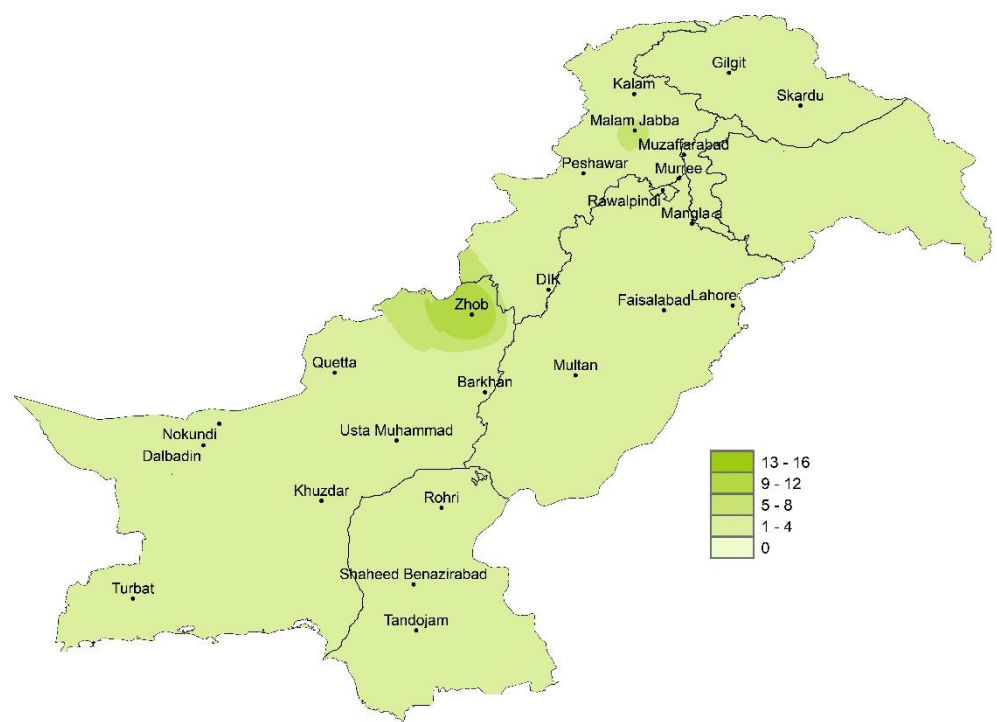
Mean Cloudiness (Oktas) at 0800PST during the previous week (22nd – 28th March, 2021)



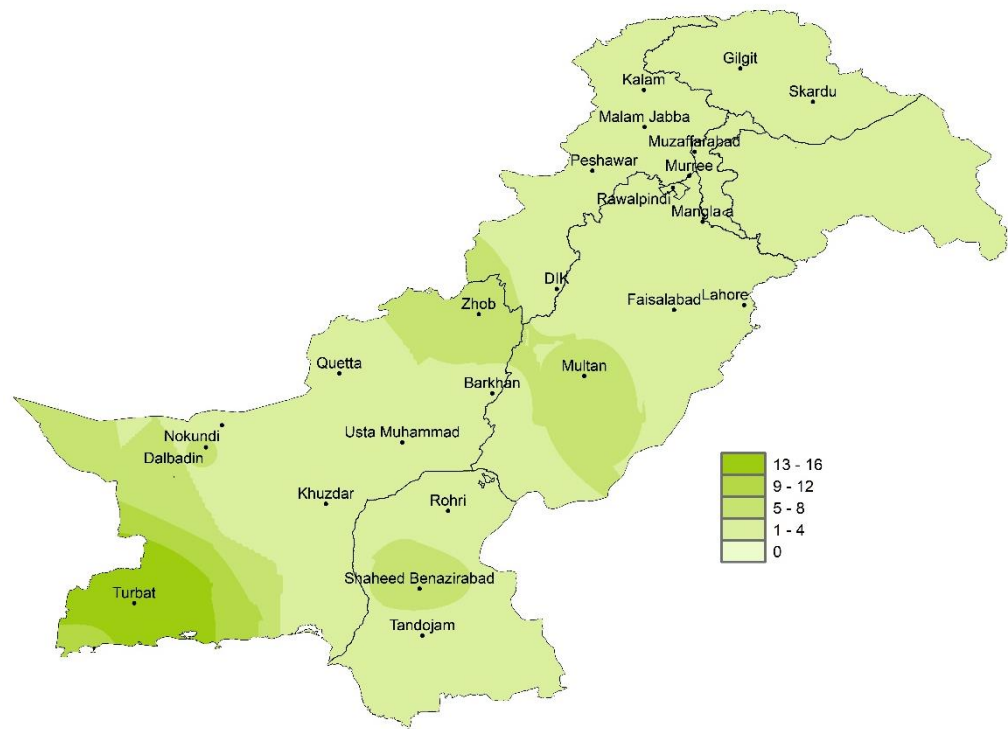
Mean Cloudiness (Oktas) at 1700PST during the previous week (22nd – 28th March, 2021)



Mean Wind Speed (Knots) at 0800PST during the previous week (22nd – 28th March, 2021)



Mean Wind Speed (Knots) at 1700PST during the previous week (22nd – 28th March, 2021)



Weekly Weather Advisory for Farmers**(29th March – 4th April, 2021)**

Continental air is prevailing over most parts of the country. A shallow westerly wave is also present over Kashmir and its adjoining areas.

MONDAY**29-03-2021**

Very Hot weather is expected in districts of Sindh and Balochistan. While, dry weather in other parts of the country. However, rain-thunderstorm is expected at isolated places in Kashmir and Gilgit Baltistan.

TUESDAY**30-03-2021**

Very Hot weather is expected in districts of Sindh and Balochistan. While, dry weather in other parts of the country. However, partly cloudy weather is expected in Gilgit-Baltistan.

WEDNESDAY**31-03-2021**

Hot & dry weather is expected in Sindh & Balochistan, while dry weather is expected in other parts of the country.

THURSDAY**01-04-2021**

Hot & dry weather is expected in Sindh & Balochistan, while dry weather is expected in other parts of the country.

FRIDAY**02-04-2021.**

Hot & dry weather is expected in Sindh & Balochistan, while dry weather is expected in other parts of the country.

SATURDAY**03-04-2021**

Hot & dry weather is expected in Sindh & Balochistan, while dry weather is expected in other parts of the country.

SUNDAY**04-04-2021**

Hot & dry weather is expected in Sindh & Balochistan. While partly cloudy weather with chances of rain-thunderstorm in upper Khyber Pakhtunkhwa and Gilgit Baltistan.

ADVISORY FOR FARMERS

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

- ❖ Farmers are advised to irrigate the crop according to its need.
- ❖ Pesticides may be applied to avoid any pest attack as per advised by the agriculture department.
- ❖ Proper arrangements should be taken to cultivate the spring season vegetables due to the gradual rise in day time temperatures in the plain areas.

National Weather Data of Selected Cities from (22nd – 28th March, 2021)

Stations	Minimum /Night Time Temperature (°C)		Growin g Degree Days	Relative Humidity (%)	Rainfall (mm)	Cloudiness (Oktas) 0800 PST	Cloudines s (Oktas) 1700 PST	Wind Speed (Knots) 0800 PST	Wind Speed (Knots) 1700 PST
	Mean	Minimum							
Barkhan	12.1	9.0	103.3	41	22.00	0.7	1.0	0.6	2.9
Dalbandin	11.9	7.5	125.5	34	0.01	0.9	1.0	0.6	4.3
D.I. Khan	15.6	14.0	119.5	67	10.50	3.3	3.7	0.0	1.7
Faisalabad	15.1	13.0	118.5	65	29.40	2.1	1.0	0.8	1.1
Gawadar	19.0	16.5	143.3	71	0.00	0.3	0.0	1.1	11.7
Gilgit	7.9	5.0	65.0	53	8.30	5.7	6.4	0.6	4.0
Kalam	-1.8	-3.0	2.3	78	64.00	3.4	6.9	0.0	0.0
Khuzdar	14.3	11.5	118.3	29	9.20	0.3	1.1	0.0	1.7
Lahore	17.2	15.2	127.3	59	7.00	2.6	1.0	0.6	3.4
Malam Jabba	1.9	-1.5	8.7	67	141.00	4.9	5.9	4.0	4.0
Mangla	14.6	12.8	111.6	65.3	47.80	2.7	3.3	2.0	2.9
Multan (PBO)	16.9	14.0	124.7	67	16.90	2.0	1.7	0.9	5.4
Murree	5.6	3.5	38.8	59	77.00	3.4	4.7	3.4	2.0
Muzaffarabad	9.3	7.3	77.7	69	80.00	3.4	4.6	0.0	0.0
Nokkundi	18.9	18.0	171.1	45	0.00	1.1	0.3	2.9	6.0
Nawabshah	17.8	13.5	151.8	14	0.00	0.0	0.3	2.0	2.6
Peshawar	13.5	9.7	101.2	74	68.41	5.3	5.9	1.7	0.9
Quetta	8.2	3.0	8.2	33	3.60	1.4	2.1	2.5	3.6
Rawalpindi	12.2	10.8	98.8	72	26.70	3.3	4.1	0.6	0.9
Rohri	18.8	16.5	153.5	54	3.00	1.9	0.3	2.6	2.9
Skardu	3.6	2.0	28.3	62	29.50	4.7	6.3	0.0	0.6
Tandojam	15.6	14.5	149.3	54	0.00	0.3	0.3	0.8	1.2
Turbat	19.6	19.0	163.3	34	0.00	0.0	0.6	0.0	15.4
Usta. M	16.9	13.0	142.5	56	25.00	0.8	1.2	0.8	0.5
Zhob	9.1	6.0	89.5	40	14.00	2.4	3.4	5.4	6.7

*** 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)