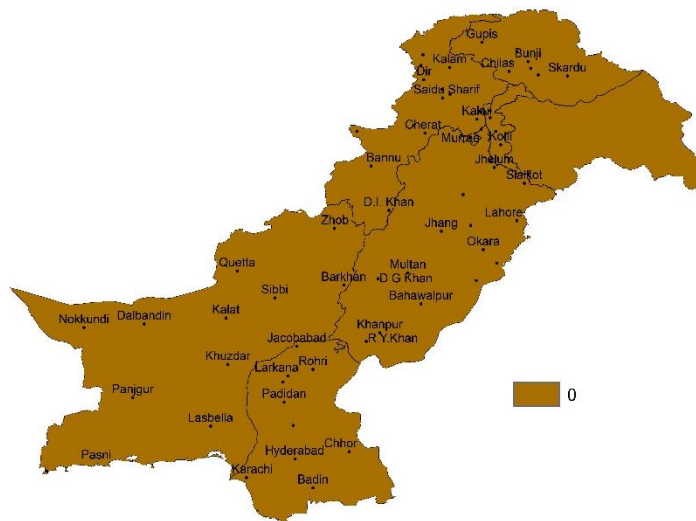


Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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Rainfall Distribution (mm) during the Previous Week (8th – 14th November, 2021)

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Highlights of Past Weather (8th – 14th November, 2021)

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

Rainfall reported as follows during the last week:

1. Dry weather reported from all over the country.

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

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

Editor: Ruqiya Mehmood (Assistant Meteorologist)

Past Weather of Provinces (8th – 14th October, 2021)**Punjab**

Dry weather reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 29.0°C & 12.0°C respectively. For the recent week on average 108.7 growing degree days were accumulated. Average relative humidity recorded as 54% and wind speed in the morning/evening recorded as 1.0/0.7 Knots. During the previous week the lowest minimum temperature was recorded as 6.0°C at Islamabad.

Baluchistan

Dry weather reported from Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 27.3°C & 10.6°C respectively. For the recent week on average 97.7 growing degree days were accumulated. Average relative humidity recorded as 36% and wind speed in the morning/evening recorded as 1.3/3.5 Knots. During the previous week the lowest minimum temperature was recorded as -3.0°C at Kalat.

Khyber Pakhtunkhwa

Dry weather reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 23.7°C & 6.5°C respectively. For the recent week on average 68.5 growing degree days were accumulated. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 1.3/1.1 Knots. During the previous week the lowest minimum temperature was recorded as -3.5°C at Kalam.

Sindh

Dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 33.3°C & 15.5°C respectively. For the recent week on average 135.9 growing degree days were accumulated. Average relative humidity recorded as 55% and wind speed in the morning/evening recorded as 1.5/2.1 Knots. During the previous week the lowest minimum temperature was recorded as 10.5°C at Mithi.

Gilgit-Baltistan and Azad Jammu & Kashmir

Dry weather reported from Gilgit-Baltistan, Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 19.5°C & 2.7°C respectively. For the recent week on average 42.7 growing degree days were accumulated. Average relative humidity recorded as 62% and calm wind reported in the morning/evening. During the previous week the lowest minimum temperature was recorded as -7.3°C at Skardu.

Past Weather for Major Agricultural Plains**(8th – 14th November, 2021)****Rawalpindi (Potohar region)**

Dry weather reported from Rawalpindi during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 67%. Mean night time temperature recorded as 7.4°C & for the recent week 88.8 growing degree days accumulated. Calm wind reported in the morning/evening.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 67%. Mean night time temperature recorded as 11.6°C & for the recent week 110.8 growing degree days accumulated. Calm wind reported in the morning/evening.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/0.4 Oktas while, average relative humidity observed as 62%. Mean night time temperature recorded as 16.2°C & for the recent week 135.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.5 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 57%. Mean night time temperature recorded as 15.5°C & for the recent week 123.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.3 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.1/0.7 Oktas while, average relative humidity observed as 28%. Mean night time temperature recorded as 4.8°C & for the recent week 55.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.6/3.1 Knots.

Past Weather for Sub-Regional Agricultural**Plains (8th – 14th November, 2021)****Multan**

Dry weather reported from Multan during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 59%. Mean night time temperature recorded as 12.7°C & for the recent week 114.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/0.6 Knots.

Lahore

Dry weather reported from Lahore during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 60%. Mean night time temperature recorded as 14.4°C & for the recent week 117.8 growing degree days accumulated. Calm wind reported in the morning/evening.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.3/0.0 Oktas while, average relative humidity observed as 35%. Mean night time temperature recorded as 8.9°C & for the recent week 78.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.9/4.3 Knots.

Murree

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 0.6/0.0 Oktas while, average relative humidity observed as 42%. Mean night time temperature recorded 8.4°C & for the recent week 56.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/1.4 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 59%. Mean night time temperature recorded as 7.8°C & for the recent week 79.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.3 Knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.7/0.7 Oktas while, average relative humidity observed as 65%. Mean night time temperature recorded as 8.8°C & for the recent week 94.7 growing degree days accumulated. Calm wind reported in the morning/evening.

Kalam

Dry weather reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.0/1.4 Oktas while, average relative humidity observed as 58%. Mean night time temperature recorded as -2.3°C & for the recent week 2.3 growing degree days accumulated. Calm wind reported in the morning/evening.

Gilgit

Dry weather reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 0.4/1.7 Oktas while, average relative humidity observed as 67%. Mean night time temperature recorded as -1.1°C & for the recent week 34.0 growing degree days accumulated. Calm wind reported in the morning/evening.

Skardu

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 0.3/1.6 Oktas while, average relative humidity observed as 58%. Mean night time temperature recorded as -5.3°C. Calm wind reported 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)

Wheat crop sown on 11-11-2021 in the fields of RAMC Faisalabad.

Lower Sindh (Tandojam)

Wheat crop sown on 13-11-2021 in the fields of RAMC Tandojam.

Northern Baluchistan (Quetta)

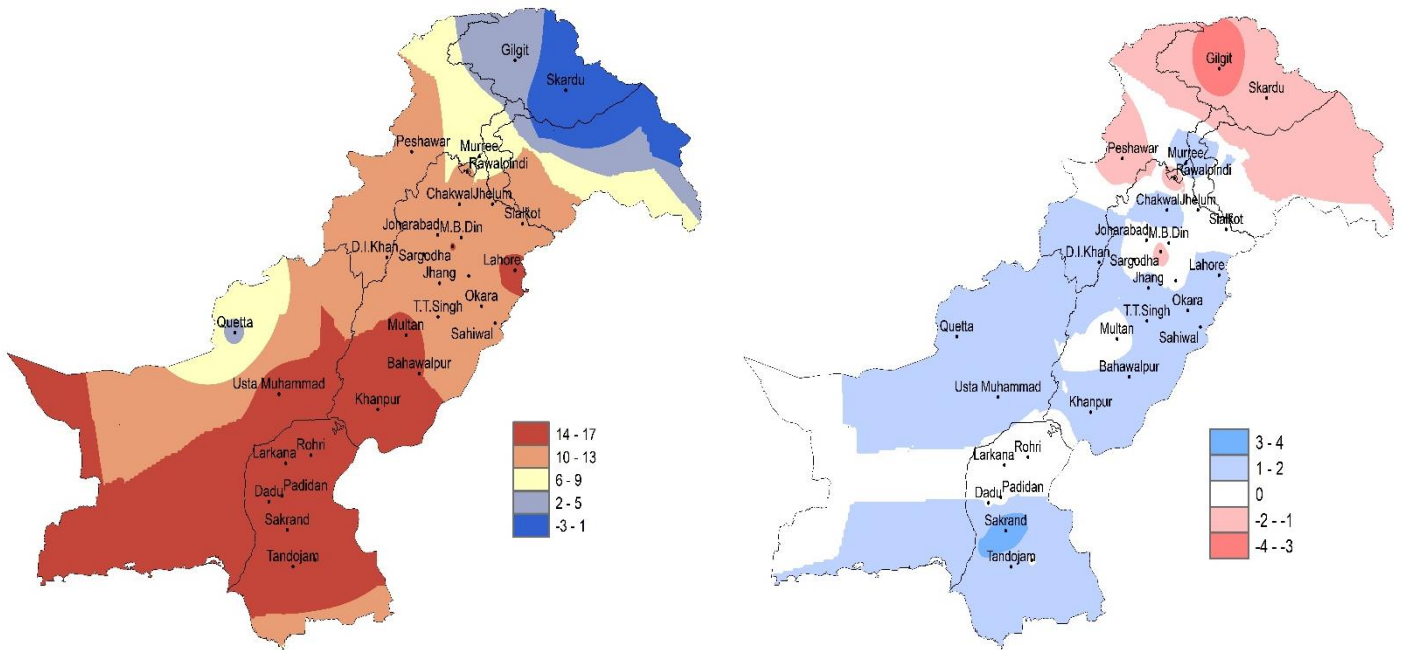
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

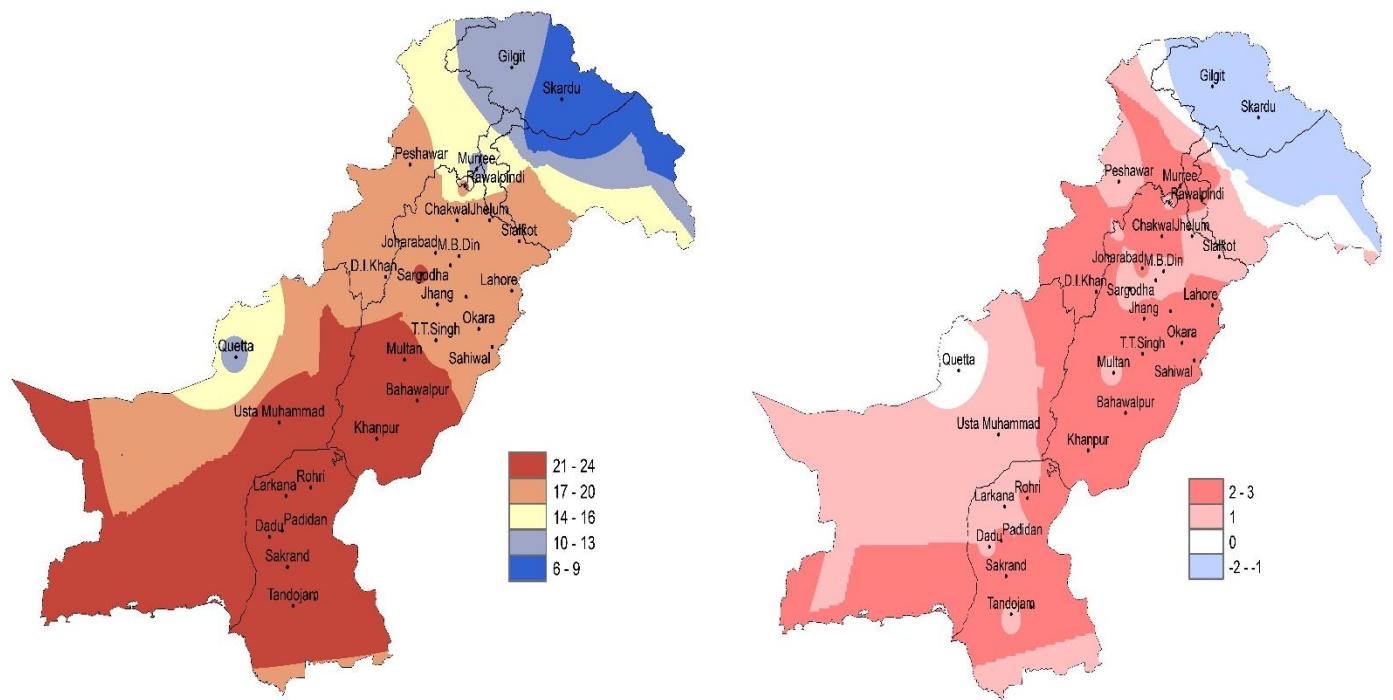
Presently Rice Crop is sown in the fields of RAMC Usta Muhammad.

Rice: Good, Full Maturity Stage.

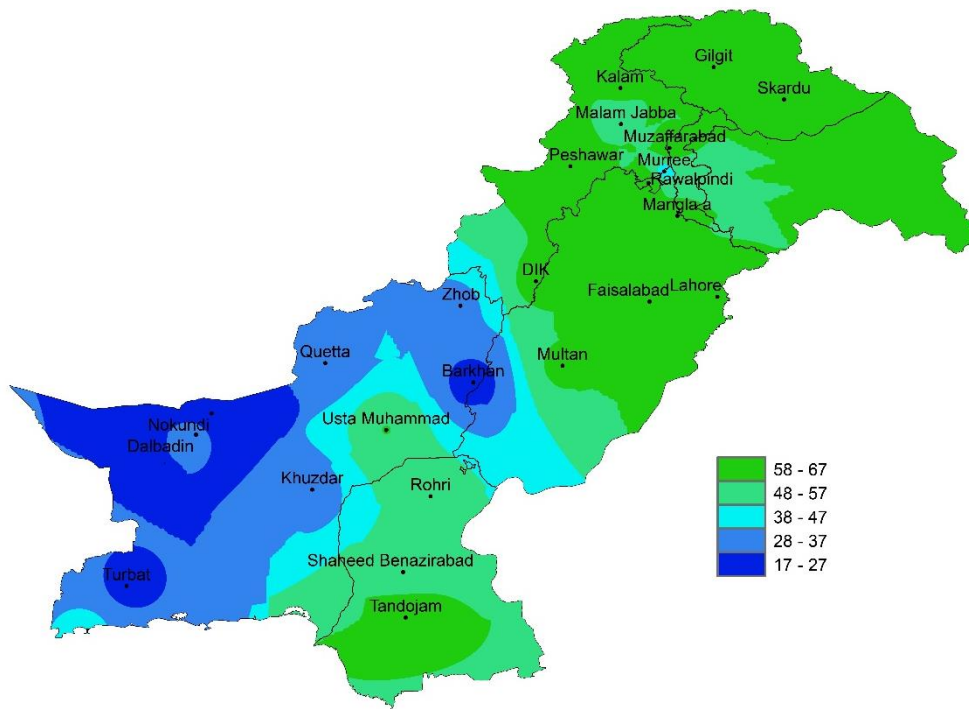
Normal & Departure of Minimum temperature (°C) for the previous week (8th – 14th November, 2021)



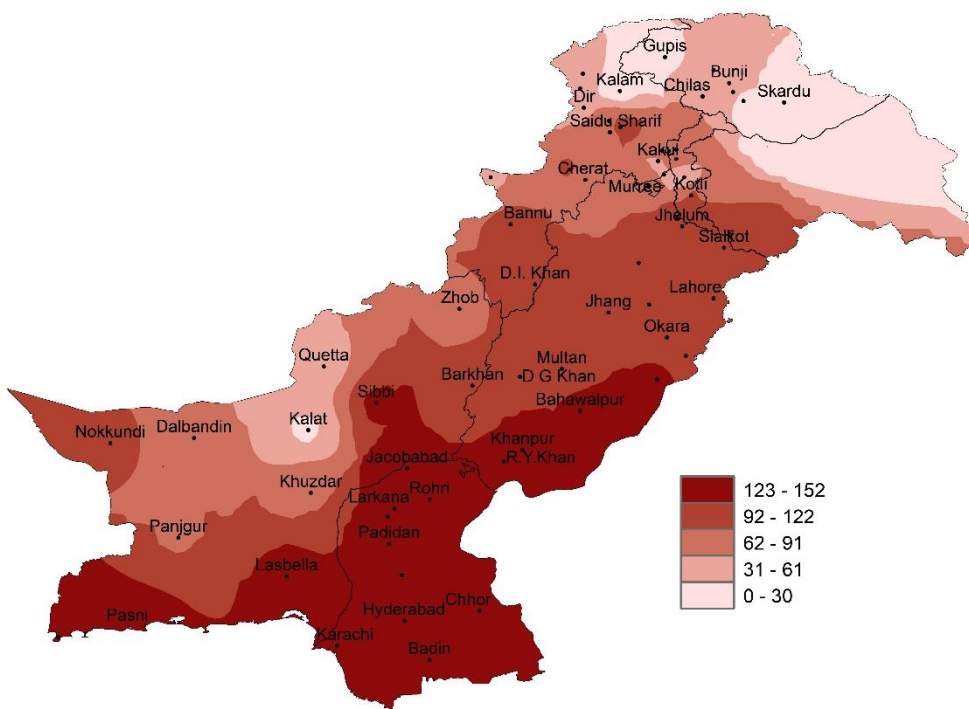
Normal & Departure of Mean temperature (°C) for the previous week (8th – 14th November, 2021)



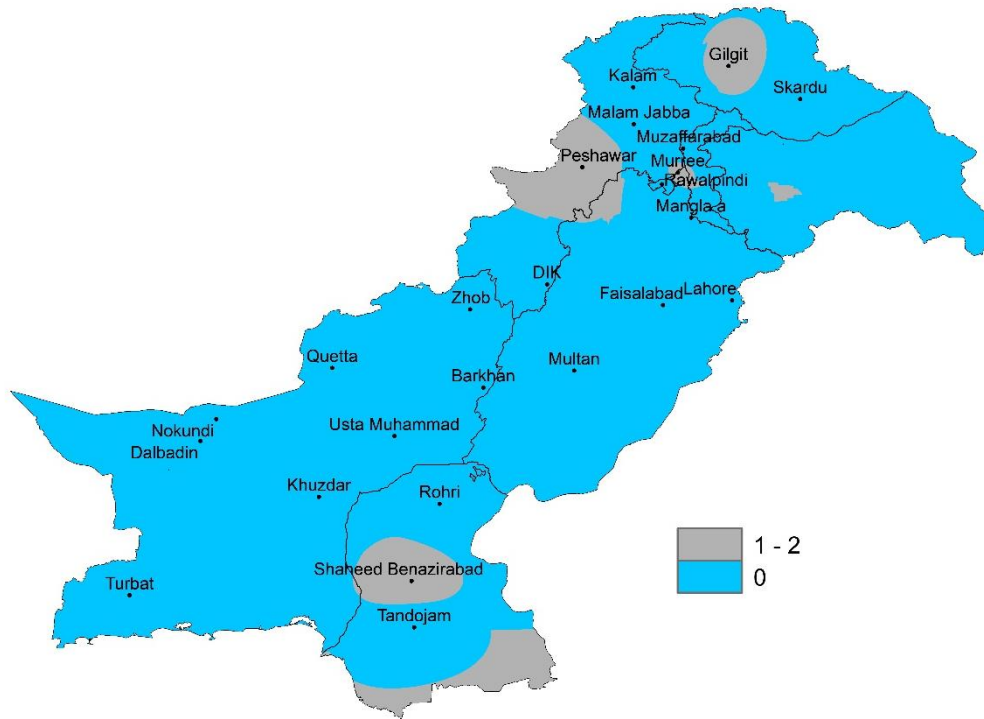
Mean Relative Humidity (%) during the previous week (8th – 14th November, 2021)



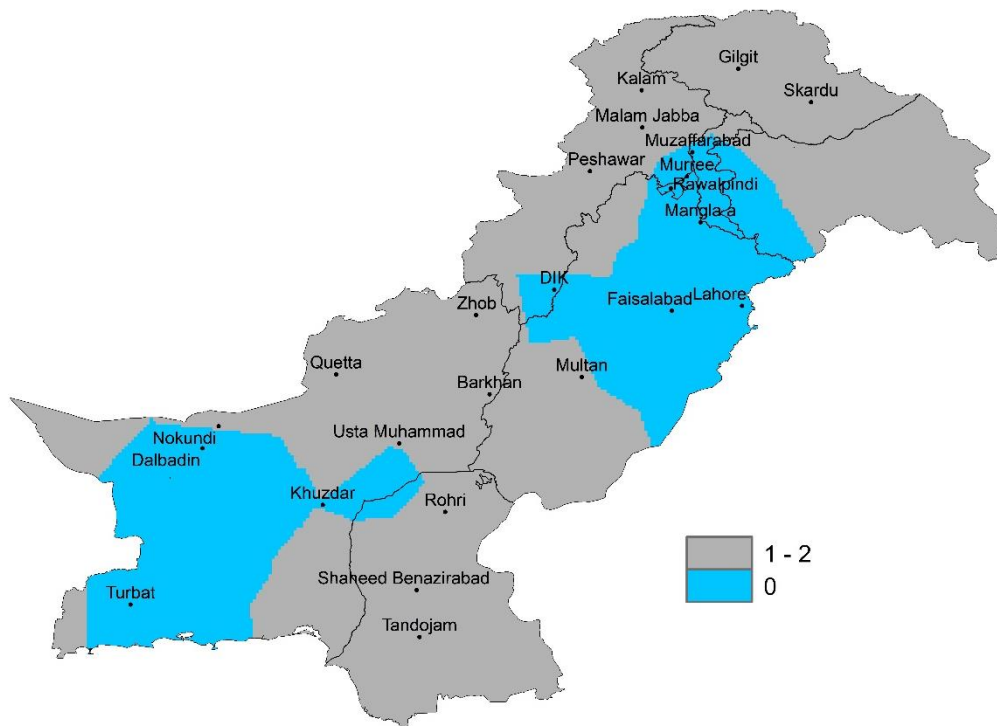
Total Growing Degree Days accumulated during the previous week (8th – 14th November, 2021)



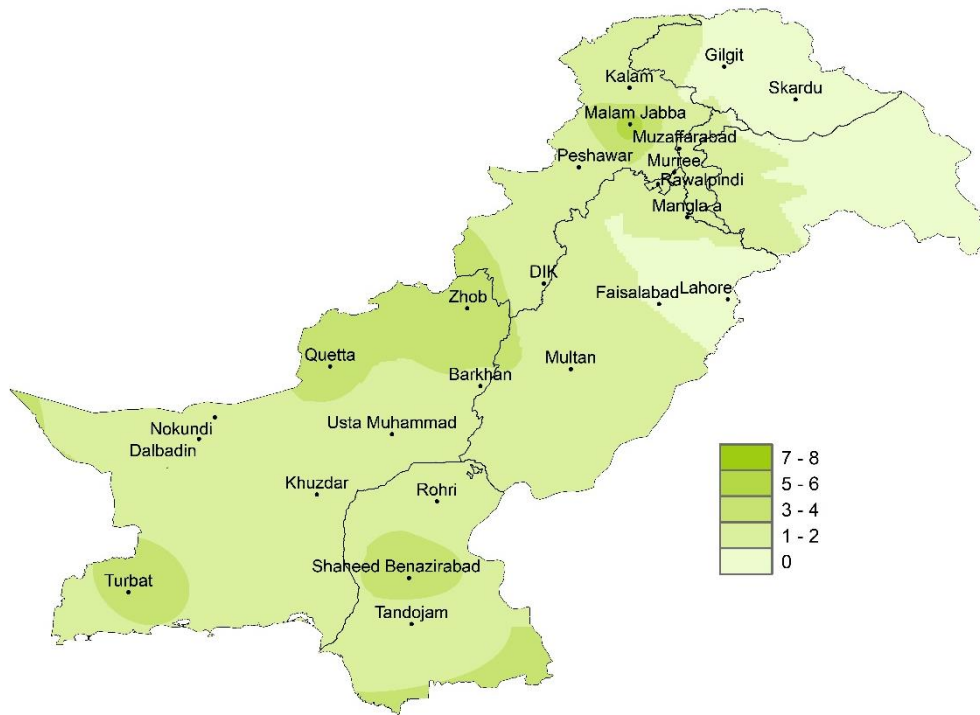
Mean Cloudiness (Oktas) at 0800PST during the previous week (8th – 14th November, 2021)



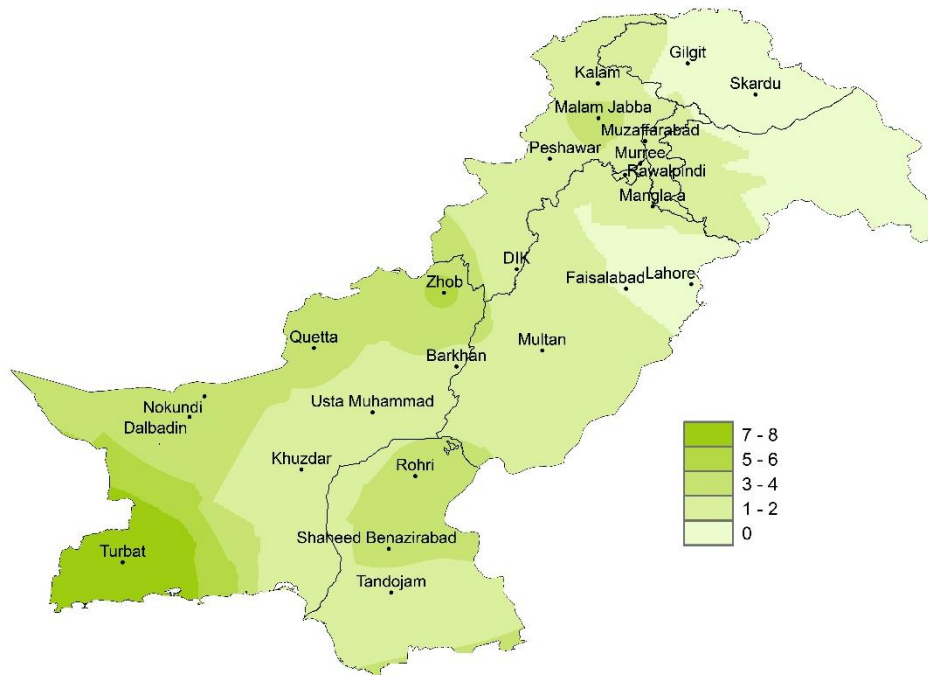
Mean Cloudiness (Oktas) at 1700PST during the previous week (8th – 14th November, 2021)



Mean Wind Speed (Knots) at 0800PST during the previous week (8th – 14th November, 2021)



Mean Wind Speed (Knots) at 1700PST during the previous week (8th – 14th November, 2021)



Weekly Weather Advisory for Farmers**(15th – 21st November, 2021)**

Continental air is prevailing over most parts of the country.

MONDAY**15-11-2021**

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

TUESDAY**16-11-2021**

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

WEDNESDAY**17-11-2021**

Mainly cold and dry weather is expected in most parts of the country. However, light rain-thunderstorm with light snowfall over the hills is expected in Khyber Pakhtunkhwa and Gilgit Baltistan.

THURSDAY**18-11-2021**

Mainly cold and dry weather is expected in most parts of the country. However, light rain-thunderstorm with light snowfall over the hills is expected in Khyber Pakhtunkhwa and Gilgit Baltistan.

FRIDAY**19-11-2021.**

Mainly cold and dry weather is expected in most parts of the country. However, light rain-thunderstorm with light snowfall over the hills is expected in Khyber Pakhtunkhwa and Gilgit Baltistan.

SATURDAY**20-11-2021**

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

SUNDAY**21-11-2021**

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

ADVISORY FOR FARMERS

During the last week, dry weather reported from all over the country. Keeping in view the expected weather conditions farmers are advised the following advisories.

- ❖ Farmers are advised to cultivate Rabi Crops well in time.

National Weather Data of Selected Cities from (8th – 14th November, 2021)

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	12.4	11.0	100.3	23	0.0	0.0	0.3	1.7	1.7
Dalbandin	13.3	12.0	118.5	30	0.0	0.0	0.0	0.3	3.1
D.I.Khan	7.8	6.0	79.8	59	0.0	0.0	0.0	0.3	0.3
Faisalabad	11.6	9.5	110.8	67	0.0	0.0	0.0	0.0	0.0
Gawadar	16.8	16.0	139.8	39	0.0	0.0	0.0	0.0	6.3
Gilgit	-1.1	-2.5	34.0	67	0.0	0.4	1.7	0.0	0.0
Kalam	-2.3	-3.5	2.3	58	0.0	0.0	1.4	0.0	0.0
Khuzdar	9.1	7.5	86.8	32	0.0	0.0	0.0	0.0	0.0
Lahore	14.4	13.9	117.8	60	0.0	0.0	0.0	0.0	0.0
Malam Jabba	5.1	4.0	0.0	54	0.0	0.3	1.6	4.7	4.0
Mangla	8.8	7.2	98.0	60	0.0	0.3	0.0	0.0	0.0
Multan	12.7	11.0	114.9	59	0.0	0.0	0.0	1.1	0.6
Murree	8.4	7.6	56.5	42	0.0	0.6	0.0	1.7	1.4
Muzaffarabad	7.0	6.5	72.0	63	0.0	0.0	0.0	0.0	0.0
Nawabshah	14.7	12.2	135.2	52	0.0	0.7	0.9	3.1	2.9
Nokkundi	10.4	9.5	95.0	17	0.0	0.0	0.0	0.6	2.9
Peshawar	8.8	7.5	94.7	65	0.0	0.7	0.7	0.0	0.0
Quetta	4.8	1.4	55.1	28	0.0	0.1	0.7	2.6	3.1
Rawalpindi	7.4	6.5	88.8	67	0.0	0.0	0.0	0.0	0.0
Rohri	16.4	13.5	135.6	51	0.0	0.0	0.0	1.1	2.9
Skardu	-5.3	-7.3	0.0	58	0.0	0.3	1.6	0.0	0.0
Tandojam	16.2	15.0	135.3	62	0.0	0.0	0.4	0.3	0.5
Turbat	17.6	16.0	145.0	24	0.0	0.0	0.0	2.7	7.7
Usta Muhammad	15.5	14.0	123.3	57	0.0	0.0	0.0	0.0	0.3
Zhob	8.9	6.5	78.0	35	0.0	0.3	0.0	3.9	4.3

*** 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)