

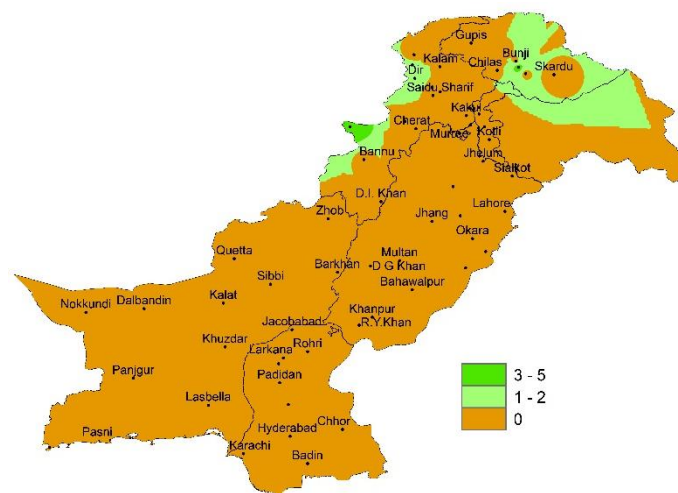
Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the Previous
Week (12th December – 18th December, 2022)**



Highlights of Past Weather (12th December – 18th December, 2022)

Slightly above normal temperatures were recorded in most parts of the country.

Province wise distribution of rainfall reported as follows during the last week:

1. Dry weather reported from the Punjab.
2. Dry weather reported from Khyber Pakhtunkhwa except light rainfall reported from Western parts of the province.
3. Dry weather reported from the provinces of Punjab and Sindh.
4. Dry weather reported from the Balochistan except Quetta with light rain.
5. Dry weather reported from GB and Kashmir.

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Editor: Shafiq Ur Rehman (Meteorologist)

Past Weather of Provinces(12th December – 18th December, 2022)

Punjab

Dry weather reported from the Punjab. Weekly maximum and minimum temperatures recorded as 23.9°C & 7.2°C respectively. For the recent week on average 73.6 growing degree days were accumulated. Average relative humidity recorded as 57% and wind speed in the morning/evening recorded as 0.8/1.0 Knots. During the previous week the highest precipitation was recorded as 0.1mm at Islamabad while the lowest minimum temperature was recorded as 1.0°C at Murree.

Baluchistan

Dry weather reported from the Balochistan except Quetta with light rain. Weekly maximum and minimum temperatures recorded as 22.8°C & 6.1°C respectively. For the recent week on average 66.3 growing degree days were accumulated. Average relative humidity recorded as 43% and wind speed in the morning/evening recorded as 1.2/2.9Knots. During the previous week the highest precipitation was recorded as 2.0mm at Quetta while the lowest minimum temperature was recorded as -6.0°C at Kalat.

Khyber Pakhtunkhwa

Dry weather reported from Khyber Pakhtunkhwa except light rainfall reported from Western parts of the province. Weekly maximum and minimum temperatures recorded as 19.3°C & 3.7°C respectively. For the recent week on average 45.9 growing degree days were accumulated. Average relative humidity recorded as 65% and wind speed in the morning/evening recorded as 1.1/0.9 Knots. During the previous week the highest precipitation was recorded as 4.0mm at Parachinar while the lowest minimum temperature was recorded as -5.0°C at Kalam.

Sindh

Dry weather reported from the province. Weekly maximum and minimum temperatures recorded as 27.4°C & 11.4°C respectively. For the recent

week, on average 100.7 growing degree days were accumulated. Average relative humidity recorded as 65% and wind speed in the morning/evening recorded as 0.2/2.3 Knots. Lowest minimum temperature was recorded as 6.0°C at Mithi.

Gilgit-Baltistan and Azad Jammu & Kashmir

Dry weather reported from GB and Kashmir. Weekly maximum and minimum temperatures recorded as 14.9°C & -0.3°C respectively. For the recent week on average 23.1 growing degree days were accumulated. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 0.1/0.3 Knots. The lowest minimum temperature was recorded as -8.8°C at Skardu.

Past Weather for Major Agricultural Plains(12th December – 18th December, 2022)

Rawalpindi (Potohar region)

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 0.6/0.4 Oktas while, average relative humidity observed as 69%. Mean night time temperature recorded 2.9°C and for the recent week 59.6 growing degree days were accumulated. Wind speed recorded in the morning/evening as 0.0/0.0Knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.0/3.0 Oktas while, average relative humidity observed as 63%. Mean night time temperature recorded as 7.4°C & for the recent week 78.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.2Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 1.0/0.4Oktas, average relative humidity observed as 67%. Mean night time temperature recorded as 10.1°C & for the recent week 95.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/1.1 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 0.2/0.0 Oktas, average relative humidity observed as 71%. Mean night time temperature recorded as 9.4°C & for the recent week 85.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/0.2Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.6/0.6 Oktas while, average relative humidity observed as 38%. Mean night time temperature recorded as -1.4°C & for the recent week 13.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/3.1Knots.

Past Weather for Sub-Regional Agricultural Plains (12th December – 18th December, 2022)

Multan

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.3/0.0Oktas. Average relative humidity observed as 64%. Mean night time temperature recorded as 7.5°C & for the recent week 78.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.1Knots

Lahore

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0Oktas, average relative humidity observed as 61%. Mean night time temperature recorded as 9.9°C & for the recent week 82.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.0/1.7Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/0.6Oktas while, average relative humidity observed as 38%. Mean night time temperature recorded as 1.9°C & for the recent week 39.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 3.6/3.4Knots.

Murree

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 0.0/0.6Oktas while, average relative humidity observed as 45%. Mean night time temperature recorded as 2.3°C & for the recent week 29.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/0.3Knots.

D.I. Khan

Dry weather reported from DI Khan during the week; however, cloudiness in the morning/evening recorded as 0.0/0.4 Oktas, average relative humidity observed as 61%. Mean night time temperature recorded as 8.8°C & for the recent week 87.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/1.4Knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.9/0.9Oktas while, average relative humidity observed as 67%. Mean night time temperature recorded as 4.1°C & for the recent week 65.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/0.6Knots.

Kalam

Dry weather reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.7/2.6Oktas while, average relative humidity observed as 60%. Mean night time temperature recorded as -3.9°C & for the recent week 0.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

Gilgit

Dry weather reported from Gilgit during the week, cloudiness in the morning/evening recorded as 2.1/1.9Oktas while, average relative humidity observed as 69%. Mean night time temperature recorded as -2.9°C & for the recent week 6.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

Skardu

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 2.1/1.4Oktas while, average relative humidity observed as 60%. Mean night time temperature recorded as -6.8°C & for the recent week 0.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

**Crop Situation for Major Agricultural Plains
(Based on data from Regional Agromet sCenters)****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. Irrigated, Phenological Stage; Tillering completed, Very Good Condition.

Lower Sindh (Tandojam)

Presently Wheat Crop is grown in the fields of RAMC Tandojam. Variety: TJ 83, Stage: Tillering.

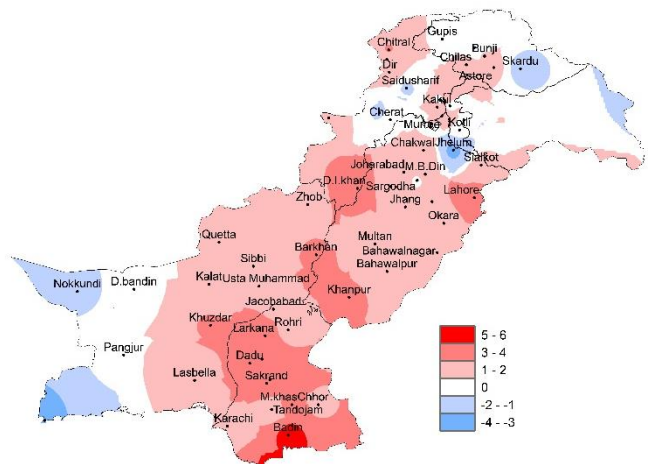
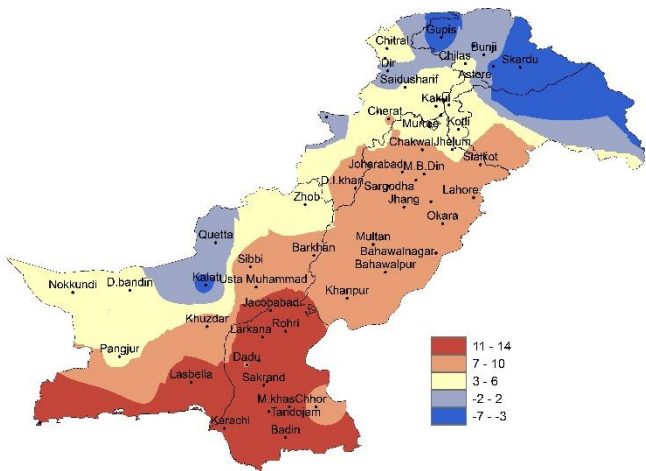
Northern Baluchistan (Quetta)

Presently Wheat Crop is grown in the fields of RAMC Sariab. Variety: Zardana. Irrigated; Phenological Stage, Emergence, Good.

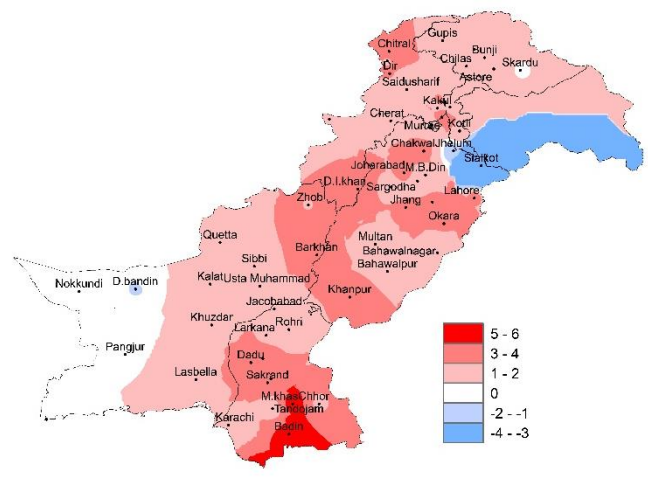
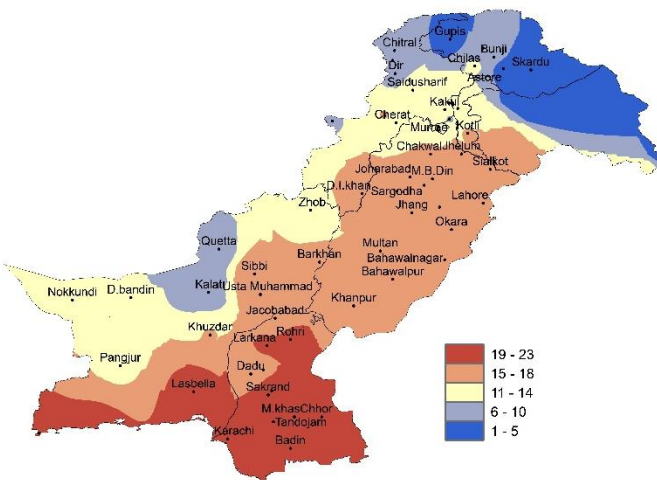
Eastern Baluchistan (Usta Muhammad)

Presently Wheat Crop is grown in the fields of RAMC Usta Muhammad. Phenological stage 3rd Leaf Stage, Good Condition. Irrigated.

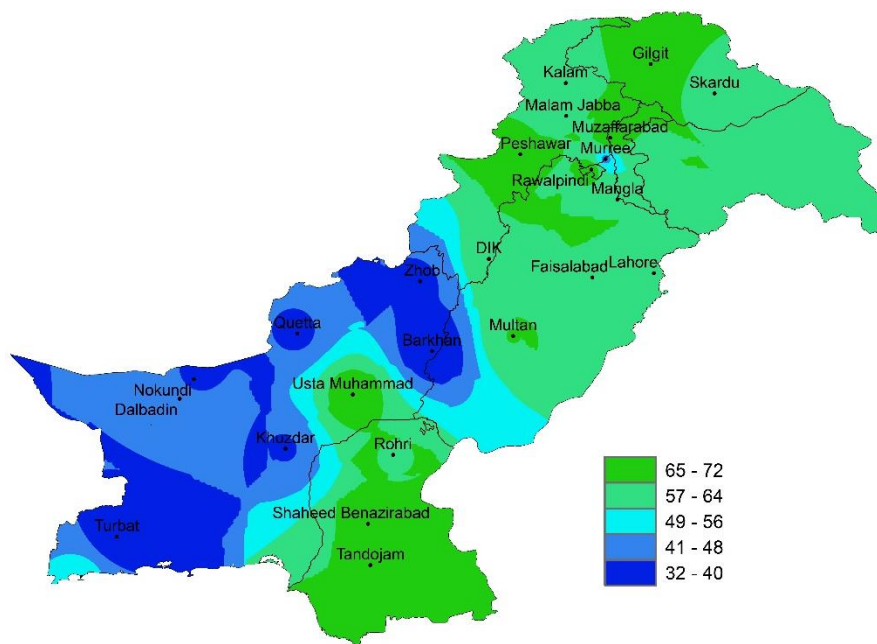
Actual & Departure of Minimum temperature (°C) for the Previous week (12th December – 18th December, 2022)



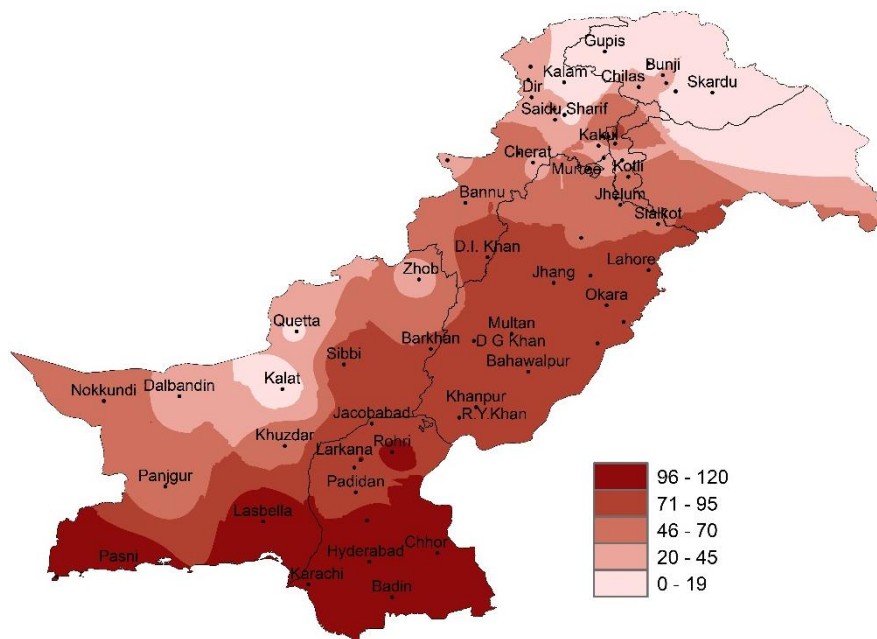
Actual & Departure of Mean temperature (°C) for the Previous week (12th December – 18th December, 2022)



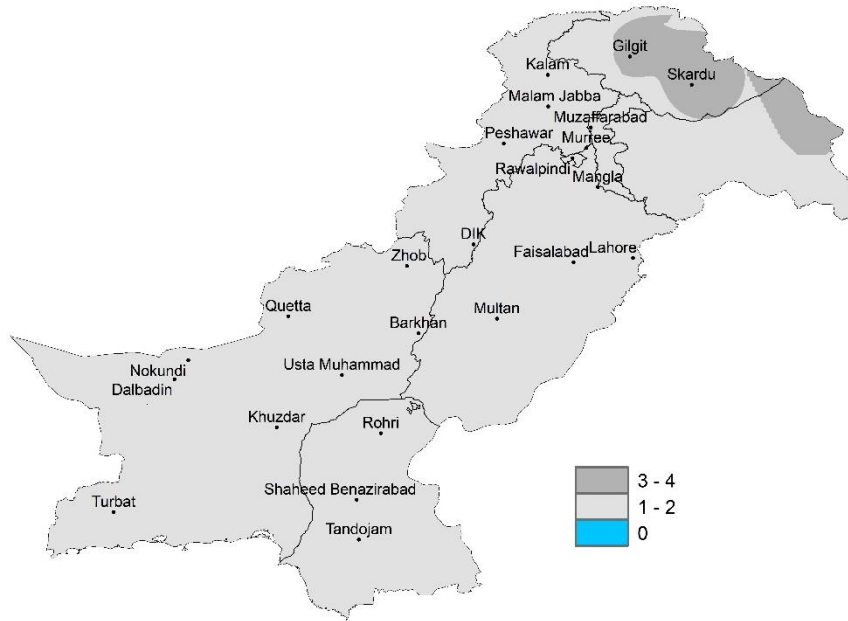
Mean Relative Humidity (%) during the
Previous week (12th December – 18th December, 2022)



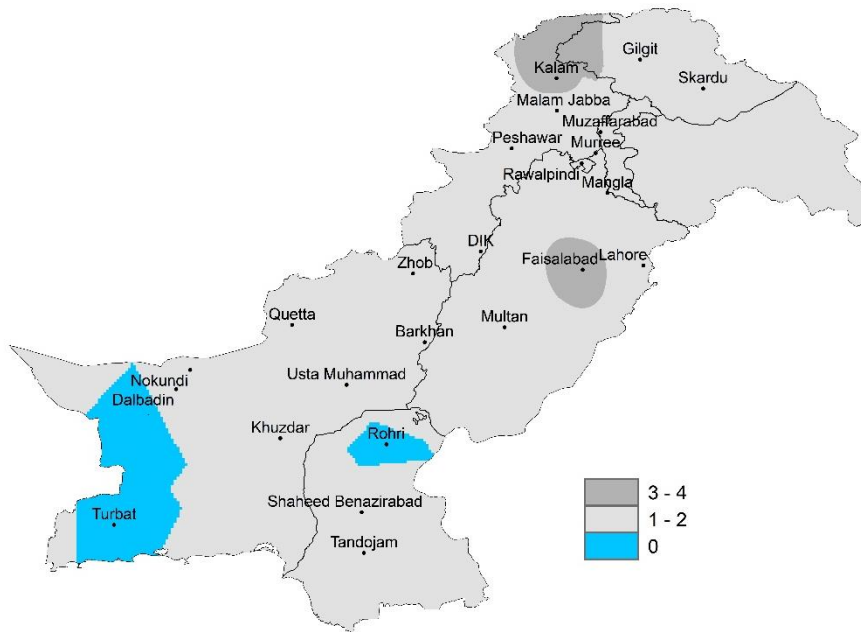
Total Growing Degree Days accumulated during the
Previous week (12th December – 18th December, 2022)



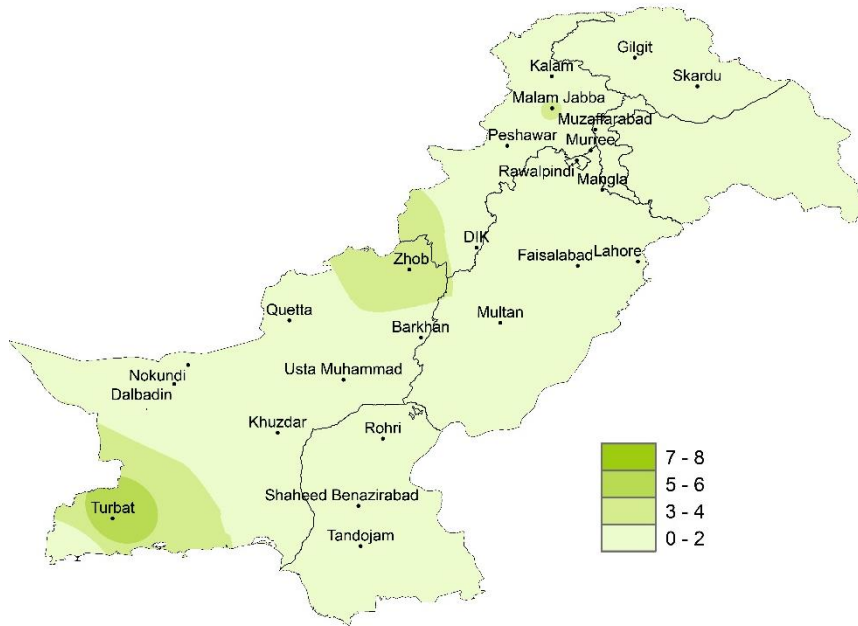
Mean Cloudiness (Oktas) at 0800PST during the
Previous week (12th December–18th December, 2022)



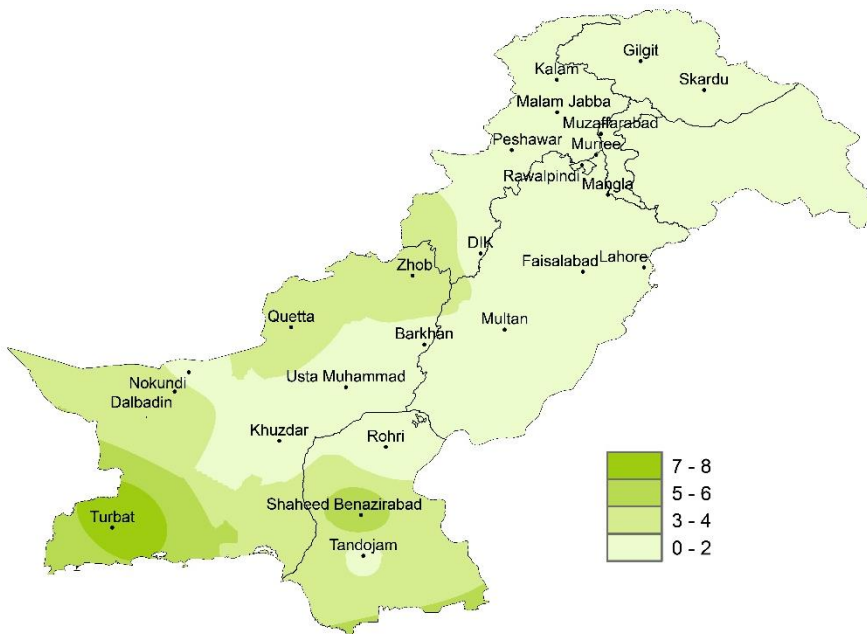
Mean Cloudiness (Oktas) at 1700PST during the
Previous week (12th December–18th December, 2022)



Mean Wind Speed (Knots) at 0800PST during the Previous week (12th December–18th December, 2022)



Mean Wind Speed (Knots) at 1700PST during the Previous week (12th December–18th December, 2022)



Weekly Weather Advisory for Farmers
(19thDecember– 25thDecember, 2022)

Continental air is prevailing over most parts of the country.

MONDAY**19-12-2022**

Cold and dry weather is expected in most parts of the country, While, very cold/partly cloudy in northern areas and north Balochistan.

Foggy conditions are likely to persist over plain areas of Punjab and upper Sindh during night hours.

TUESDAY**20-12-2022**

Cold and dry weather is expected in most parts of the country, While, very cold in northern areas and north Balochistan.

Foggy conditions are likely to persist over plain areas of Punjab and upper Sindh during night and morning hours. Frost is likely to occur at isolated places in Pothohar region during morning hours.

WEDNESDAY**21-12-2022**

Mainly cold and dry weather is expected in most parts of the country, while very cold in northern areas and north Balochistan.

However, foggy conditions are likely in upper Sindh, plain areas of Punjab and Khyber Pakhtunkhwa.

THURSDAY**22-12-2022**

Mainly cold and dry weather is expected in most parts of the country, while very cold in northern areas and north Balochistan.

However, foggy conditions are likely in upper Sindh, plain areas of Punjab and Khyber Pakhtunkhwa.

FRIDAY**23-12-2022**

Mainly cold and dry weather is expected in most parts of the country, while very cold in northern areas and north Balochistan.

However, foggy conditions are likely in upper Sindh, plain areas of Punjab and Khyber Pakhtunkhwa.

SATURDAY**24-12-2022**

Mainly cold and dry weather is expected in most parts of the country, while very cold in northern areas and north Balochistan. Partly cloudy weather is expected in Upper Khyber Pakhtunkhwa, Gilgit-

Baltistan, Kashmir, Islamabad and Pothohar region.

However, foggy conditions are likely in upper Sindh, plain areas of Punjab and Khyber Pakhtunkhwa. Foggy conditions are likely in upper Sindh, plain areas of Punjab and Khyber Pakhtunkhwa.

SUNDAY**25-12-2022**

Mainly cold and dry weather is expected in most parts of the country, while very cold in northern areas and north Balochistan. Partly cloudy weather is expected in Upper Khyber Pakhtunkhwa, Gilgit-Baltistan, Kashmir, Islamabad and Pothohar region.

However, foggy conditions are likely in upper Sindh, plain areas of Punjab and Khyber Pakhtunkhwa.

ADVISORY FOR FARMERS

1. The farmers may continue the routine activities according to the weather forecast.

National Weather Data of Selected Cities from (12th December – 18th December, 2022)

Stations	Maximum/Day 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	Highest							
D.I.Khan	8.83	7.50	87.40	61.14	0.00	0.00	0.43	1.43	1.43
Faisalabad	7.40	6.50	78.00	63.00	0.00	0.00	3.00	0.00	0.20
Gawadar	13.21	11.50	113.25	52.00	0.00	0.00	0.00	0.00	4.29
Gilgit	-2.86	-4.50	6.75	68.79	0.00	2.14	1.86	0.00	0.00
Kalam	-3.93	-5.00	0.00	59.93	0.00	0.71	2.57	0.00	0.00
Khuzdar	7.36	6.50	64.25	38.73	0.00	0.43	0.50	0.00	1.00
Lahore	9.91	8.20	82.70	61.20	0.00	0.00	0.00	1.00	1.71
Malam Jabba	0.43	-0.50	0.00	61.21	0.00	1.00	1.43	2.29	1.14
Mangla	5.29	4.10	68.35	63.50	0.00	0.57	0.14	0.29	1.14
Multan (PBO)	7.49	6.00	78.50	64.21	0.00	0.29	0.00	0.00	1.14
Murree	2.29	1.00	29.65	45.29	0.00	0.00	0.57	1.43	0.29
Muzaffarabad	5.03	4.40	54.50	72.07	0.00	0.43	0.29	0.00	0.00
Nawabshah	11.64	10.50	99.10	64.57	0.00	0.00	0.00	0.00	5.71
Peshawar	4.13	3.00	65.60	66.50	0.01	0.86	0.86	0.57	0.57
Quetta	-1.40	-2.50	13.50	38.00	0.10	0.60	0.60	1.10	3.10
Rawalpindi	2.90	2.00	59.60	69.00	0.00	0.60	0.40	0.00	0.00
Rohri	11.36	10.00	96.50	63.50	0.00	0.00	0.00	0.00	0.00
Skardu	-6.76	-8.80	0.00	59.93	0.00	2.14	1.43	0.00	0.00
Tandojam	10.10	8.00	95.30	66.50	0.00	1.00	0.40	0.50	1.10
Usta.M	9.40	8.50	85.50	70.50	0.00	0.20	0.00	1.10	0.20
Zhob	1.93	0.50	39.00	38.07	0.00	0.00	0.57	3.57	3.43

*** 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 2014-2012)