

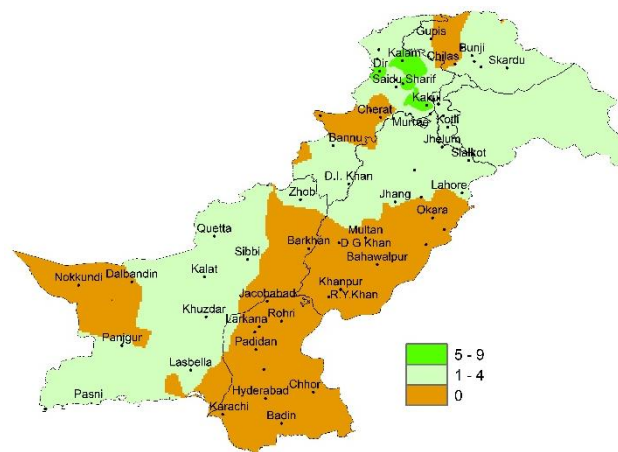
Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the Previous
Week (05th December – 11th December, 2022)**



Highlights of Past Weather (05th December – 11th December, 2022)

Slightly above normal temperature was recorded in most parts of the country except few places in KPK.

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

1. Light rainfall reported from upper parts of the Punjab while dry weather observed in the central and southern Punjab.
2. Light rainfall reported from northern and southern parts of Khyber Pakhtunkhwa while dry weather in central parts of KPK.
3. Dry weather reported from Sindh.
4. Light rainfall reported from parts of Balochistan.
5. Light rainfall reported from GB and Kashmir.

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Past Weather of Provinces(05th December – 11th December, 2022)

Punjab

Light rainfall reported from upper parts of the Punjab while dry weather observed in the central and southern Punjab. Weekly maximum and minimum temperatures recorded as 23.7°C & 8.5°C respectively. For the recent week on 77.9 growing degree days were accumulated. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 0.2/0.5 Knots. During the previous week the highest precipitation was recorded as 0.02mm at Mandi Bahuddin while the lowest minimum temperature was recorded as 1.5°C at Murree.

Baluchistan

Light rainfall reported from parts of Balochistan. Weekly maximum and minimum temperatures recorded as 23.7°C & 8.0°C respectively. For the recent week on average 75.4 growing degree days were accumulated. Average relative humidity recorded as 47% and wind speed in the morning/evening recorded as 0.7/3.8Knots. During the previous week the highest precipitation was recorded as 4.0mm at Gawadar while the lowest minimum temperature was recorded as -5.0°C at Kalat.

Khyber Pakhtunkhwa

Light rainfall reported from northern and southern parts of Khyber Pakhtunkhwa while dry weather in central parts of KPK. Weekly maximum and minimum temperatures recorded as 17.9°C & 4.0°C respectively. For the recent week on average 43.1 growing degree days were accumulated. Average relative humidity recorded as 74% and wind speed in the morning/evening recorded as 0.6/0.4 Knots. During the previous week the highest precipitation was recorded as 9.0mm at Kakul while the lowest minimum temperature was recorded as -6.0°C at Kalam.

Sindh

Dry weather reported from the province. Weekly maximum and minimum temperatures recorded as 27.7°C & 12.1°C respectively. For the recent week, on average 104.3 growing degree days were accumulated. Average relative humidity recorded as 68% and wind speed in the morning/evening recorded as 0.8/2.7 Knots. Lowest minimum temperature was recorded as 6.5°C at Mithi.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light rainfall reported from GB and Kashmir. Weekly maximum and minimum temperatures recorded as 14.5°C & 1.2°C respectively. For the recent week on average 22.5 growing degree days were accumulated. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 0.0/0.4 Knots. During the previous week the highest precipitation was recorded as 2.0mm at Garhi Dupatta while the lowest minimum temperature was recorded as -6.5°C at Skardu.

Past Weather for Major Agricultural Plains(05th December – 11th December, 2022)

Rawalpindi (Potohar region)

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.3/2.6 Oktas while, average relative humidity observed as 72%. Mean night time temperature recorded 3.4°C and for the recent week 57.5 growing degree days were accumulated. Wind speed recorded in the morning/evening as 0.0/0.2Knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.3/1.0 Oktas while, average relative humidity observed as 70%. Mean night time temperature recorded as 9.5°C & for the recent week 86.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.2/0.2Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0Oktas, average relative humidity observed as 69%. Mean night time temperature recorded as 10.5°C & for the recent week 96.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/1.2 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 0.0/0.5 Oktas, average relative humidity observed as 70%. Mean night time temperature recorded as 10.0°C & for the recent week 91.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/0.9Knots.

Quetta (Northern Baluchistan)

Almost dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 3.7/6.6 Oktas while, average relative humidity observed as 46%. Mean night time temperature recorded as 0.6°C & for the recent week 21.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.2/1.8Knots.

Past Weather for Sub-Regional Agricultural Plains (05th December – 11th December, 2022)

Multan

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 2.0/0.7Oktas. Average relative humidity observed as 73%. Mean night time temperature recorded as 9.2°C & for the recent week 80.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.0Knots

Lahore

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 1.6/2.5Oktas, average relative humidity observed as 65%. Mean night time temperature recorded as 10.9°C & for the recent week 88.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.5Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/2.3Oktas while, average relative humidity observed as 39%. Mean night time temperature recorded as 5.1°C & for the recent week 49.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.1/3.6Knots.

Murree

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 2.9/3.3Oktas while, average relative humidity observed as 59%. Mean night time temperature recorded as 2.3°C & for the recent week 21.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/0.9Knots.

D.I. Khan

Almost dry weather reported from DI Khan during the week; however, cloudiness in the morning/evening recorded as 1.0/1.4 Oktas, average relative humidity observed as 76%. Mean night time temperature recorded as 9.9°C & for the recent week 86.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.3.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.7/4.0Oktas while, average relative humidity observed as 78%. Mean night time temperature recorded as 5.1°C & for the recent week 58.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.0Knots.

Kalam

Rainfall reported as 5.5mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 4.1/6.4Oktas while, average relative humidity observed as 62%. 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 3.9/4.9Oktas while, average relative humidity observed as 64%. Mean night time temperature recorded as -1.1°C & for the recent week 12.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.3 Knots.

Skardu

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 5.4/4.7Oktas while, average relative humidity observed as 62%. Mean night time temperature recorded as -3.5°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. **Wheat**; Phenological Stage, Tillering, Very Good Condition.

Lower Sindh (Tandojam)

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

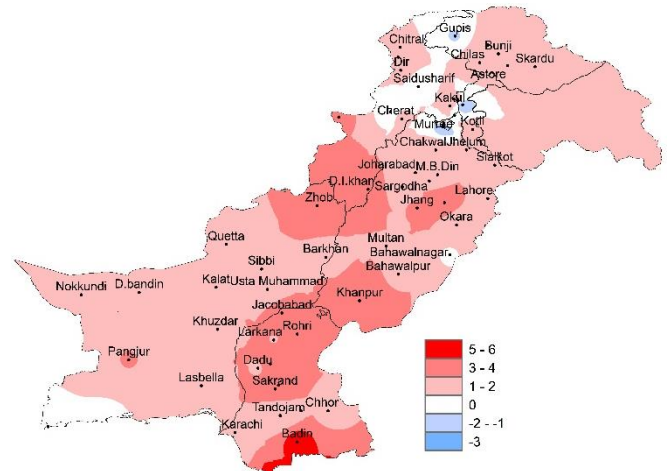
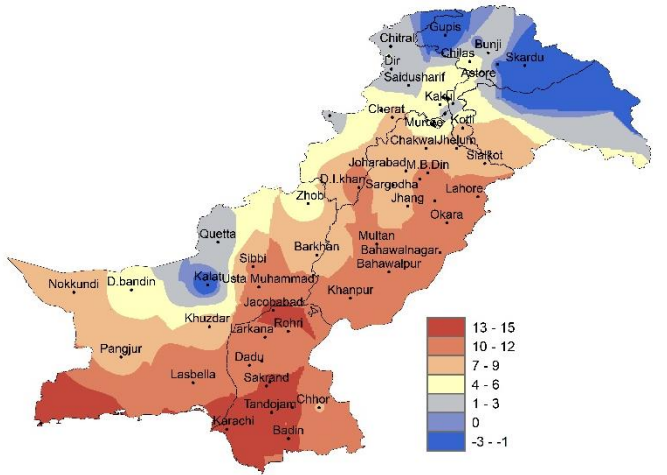
Northern Baluchistan (Quetta)

At present no crop grown in RAMC Quetta.

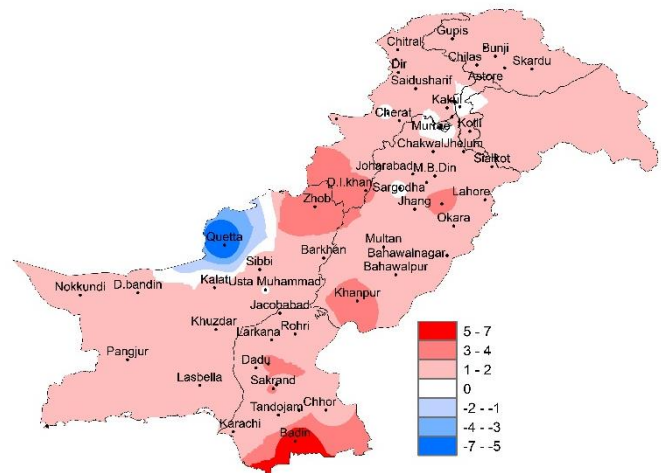
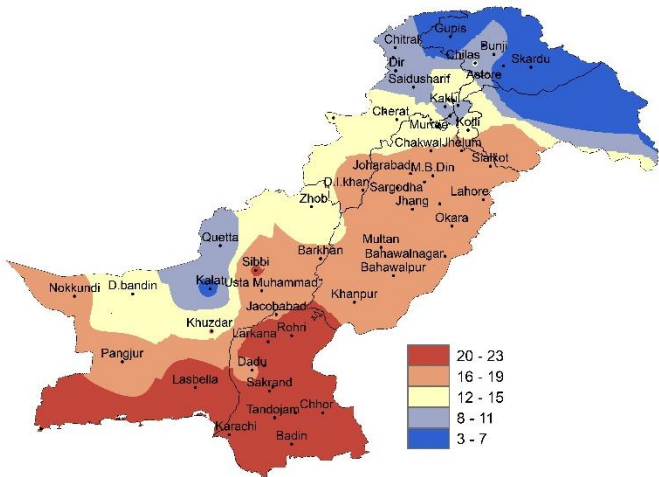
Eastern Baluchistan (Usta Muhammad)

Presently Wheat Crop is grown in the fields of RAMC Usta Muhammad. Phenological stage 2nd Leaf Stage, Good Condition.

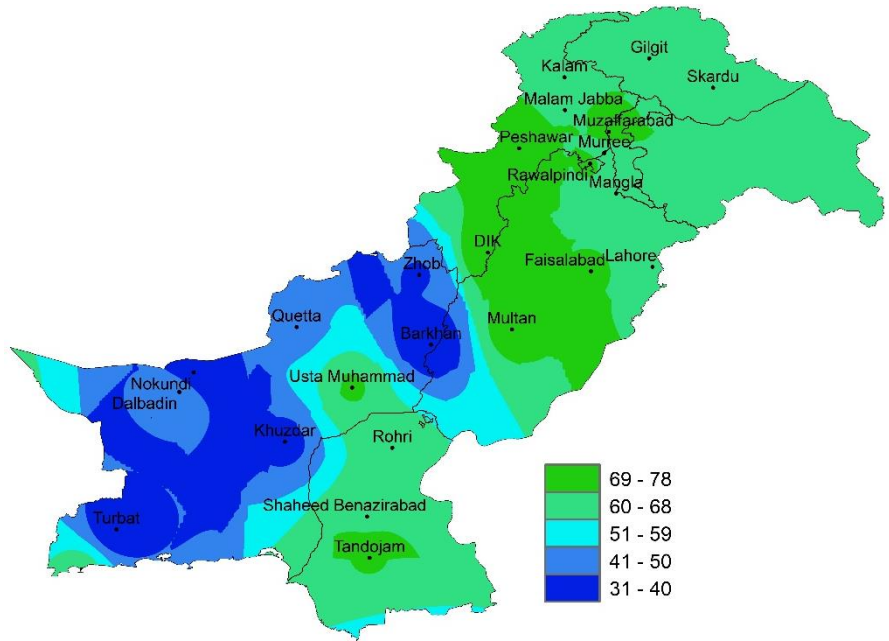
Actual & Departure of Minimum temperature (°C) for the Previous week (05th December – 11th December, 2022)



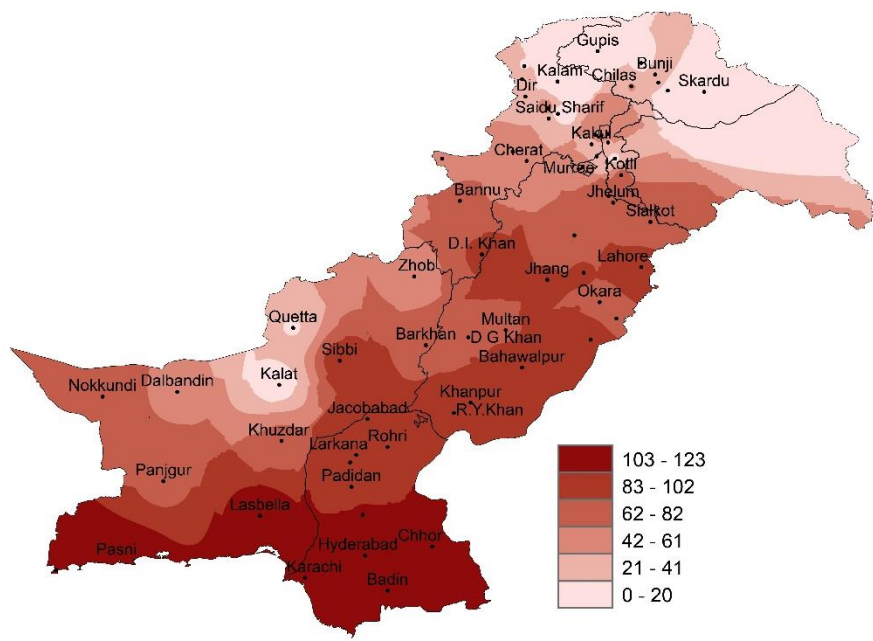
Actual & Departure of Mean temperature (°C) for the Previous week (05th December – 11th December, 2022)



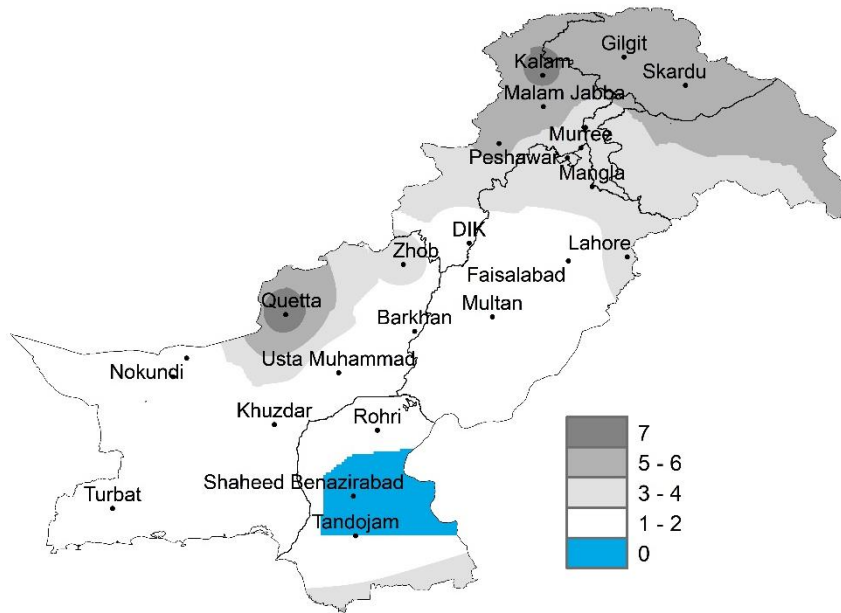
Mean Relative Humidity (%) during the
Previous week (05th December – 11th December, 2022)



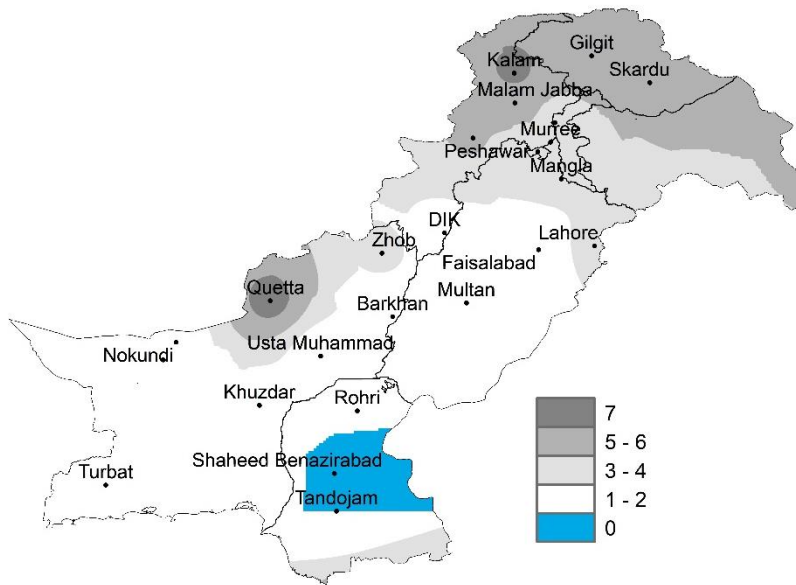
Total Growing Degree Days accumulated during the
Previous week (5th December – 11th December, 2022)



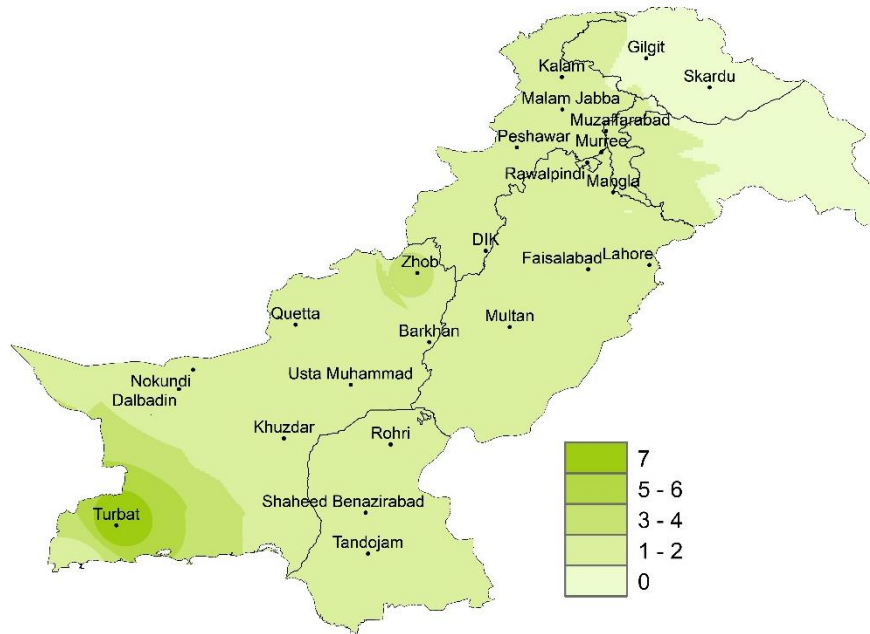
Mean Cloudiness (Oktas) at 0800PST during the
Previous week (5th December – 11th December, 2022)



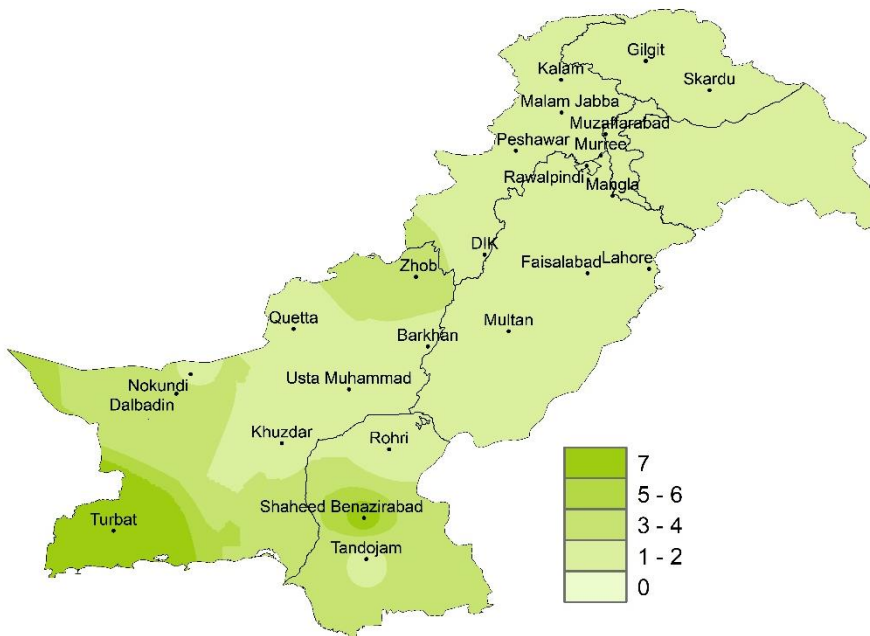
Mean Cloudiness (Oktas) at 1700PST during the
Previous week (5th December – 11th December, 2022)



Mean Wind Speed (Knots) at 0800PST during the Previous week (5th December – 11th December, 2022)



Mean Wind Speed (Knots) at 1700PST during the Previous week (5th December – 11th December, 2022)



Weekly Weather Advisory for Farmers**(12thDecember– 18thDecember, 2022)**

A shallow westerly wave is present over the western & upper parts of the country and likely to persist in upper parts during next 36 hours.

MONDAY**12-12-2022**

Cold and dry weather is expected in most plain parts of the country. However, rain/thunder (snow over the hills) is likely at isolated places in Pothohar region, upper Khyber Pakhtunkhwa, north Balochistan, Gilgit Baltistan and Kashmir during evening/night.

TUESDAY**13-12-2022**

Cold and dry weather is expected in most parts of the country. However, rain/thunder (snow over the hills) is likely at isolated places in upper Khyber Pakhtunkhwa, north Balochistan, Gilgit Baltistan and Kashmir. Foggy conditions are likely to prevail over plain areas of Punjab and upper Sindh during morning hours.

WEDNESDAY**14-12-2022**

Mainly cold and dry weather is expected in most parts of the country, while very cold in northern areas & north Balochistan. Foggy conditions are likely in upper Sindh, plain areas of Punjab and Khyber Pakhtunkhwa.

THURSDAY**15-12-2022**

Mainly cold and dry weather is expected in most parts of the country, while very cold in northern areas & north Balochistan. Foggy conditions are likely in upper Sindh, plain areas of Punjab and Khyber Pakhtunkhwa.

FRIDAY**16-12-2022**

Mainly cold and dry weather is expected in most parts of the country, while very cold in northern areas & north Balochistan. Foggy conditions are likely in upper Sindh, plain areas of Punjab and Khyber Pakhtunkhwa.

SATURDAY**17-12-2022**

Mainly cold and dry weather is expected in most parts of the country, while very cold in northern areas & north Balochistan. However, partly cloudy weather is expected in upper Khyber Pakhtunkhwa and Gilgit Baltistan.

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

SUNDAY**18-12-2022**

Mainly cold and dry weather is expected in most parts of the country, while very cold in northern areas & north Balochistan. However, partly cloudy weather is expected in upper Khyber Pakhtunkhwa and Gilgit Baltistan. 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 (5th December – 11th 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	9.9	9.5	86.0	76	0.01	1.0	1.4	0.3	0.3
Faisalabad	9.5	8.0	86.5	70	0.00	1.3	1.0	0.2	0.2
Gawadar	13.9	13.0	119.0	64	4.00	0.3	0.6	0.0	6.3
Gilgit	-1.1	-3.0	12.5	64	0.00	3.9	4.9	0.0	0.3
Kalam	-3.9	-6.0	0.0	62	5.50	4.1	6.4	0.0	0.0
Khuzdar	7.4	6.5	68.3	37	0.50	0.9	1.0	0.0	1.4
Lahore	10.9	10.2	88.6	65	0.00	1.6	2.5	0.0	0.5
Malam Jabba	0.5	-1.5	0.0	67	7.00	2.0	4.7	1.7	0.6
Mangla	7.6	5.9	76.4	63	0.00	2.9	2.3	0.0	0.3
Multan (PBO)	9.2	7.8	80.8	73	0.00	2.0	0.7	0.0	0.0
Murree	2.3	1.5	21.1	59	0.00	2.9	3.3	0.6	0.9
Muzaffarabad	5.2	3.6	46.5	74	1.21	1.8	3.7	0.0	0.9
Nawabshah	12.5	11.5	103.5	68.2	0.0	0.4	0.0	1.4	6.9
Peshawar	5.1	4.5	58.9	78	0.00	2.7	4.0	0.3	0.0
Quetta	0.6	-0.6	21.0	46	0.01	3.7	6.6	1.2	1.8
Rawalpindi	3.4	3.0	57.5	72	0.00	2.3	2.6	0.0	0.2
Rohri	12.4	11.5	102.3	66	0.00	0.9	0.0	0.6	0.0
Skardu	-3.5	-6.5	0.0	62	0.00	5.4	4.7	0.0	0.0
Tandojam	10.5	9.0	96.3	69	0.00	0.0	0.0	0.3	1.2
Usta.M	10.0	9.5	91.3	69.5	0.0	0.0	0.5	1.1	0.9
Zhob	5.1	4.0	49.5	39	0.00	0.0	2.3	2.1	3.6

*** 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)