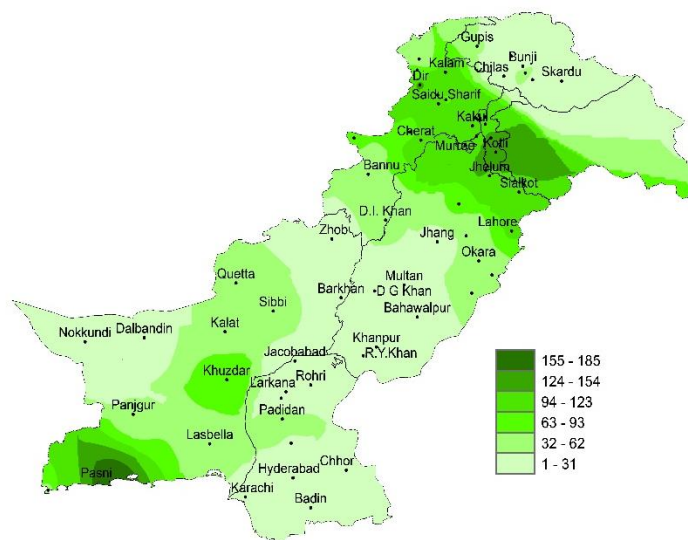


# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the Previous  
Week (3<sup>rd</sup> – 9<sup>th</sup> January, 2022)**

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## Highlights of Past Weather (3<sup>rd</sup> – 9<sup>th</sup> January, 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 (with isolated heavy falls) reported from Punjab, Khyber Pakhtunkhwa, Balochistan, Kashmir and Gilgit-Baltistan.
2. Light to moderate rainfall reported from Sindh.

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

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

**Editor: Ruqiya Mehmood (Assistant Meteorologist)**

**Past Weather of Provinces (3<sup>rd</sup> – 9<sup>th</sup> January, 2022)****Punjab**

Light to moderate rainfall (with isolated heavy falls) reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 15.5°C & 8.1°C respectively. For the recent week on average 47.6 growing degree days were accumulated. Average relative humidity recorded as 85% and wind speed in the morning/evening recorded as 0.9/3.0 Knots. During the previous week the highest precipitation was observed as 134.4 mm at Murree while the lowest minimum temperature was recorded as -3.0°C at Murree.

**Baluchistan**

Light to moderate rainfall (with isolated heavy falls) reported from Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 15.9°C & 6.4°C respectively. For the recent week on average 43.4 growing degree days were accumulated. Average relative humidity recorded as 65% and wind speed in the morning/evening recorded as 1.7/4.0 Knots. During the previous week the highest precipitation was observed as 185.0 mm at Pasni while the lowest minimum temperature was recorded as -5.0°C at Kalat.

**Khyber Pakhtunkhwa**

Light to moderate rainfall (with isolated heavy falls) reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 9.3°C & 2.2°C respectively. For the recent week on average 9.8 growing degree days were accumulated. Average relative humidity recorded as 88% and wind speed in the morning/evening recorded as 0.6/1.0 Knots. During the previous week the highest precipitation was observed as 128.0 mm at Dir while the lowest minimum temperature was recorded as -13.0°C at Kalam.

**Sindh**

Light to moderate rainfall reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 19.8°C & 10.6°C respectively. For the recent week on average 71.5 growing degree days were accumulated. Average relative humidity recorded as 79% and wind speed in the morning/evening recorded as 1.4/2.7 Knots. During the previous week the highest precipitation was observed as 40.3 mm at Padidan while the lowest minimum temperature was recorded as 4.5°C at Padidan.

**Gilgit-Baltistan and Azad Jammu & Kashmir**

Light to moderate rainfall (with isolated heavy falls) reported from Gilgit-Baltistan, Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 7.0°C & -0.2°C respectively. Average relative humidity recorded as 84% and wind speed in the morning/evening recorded as 0.4/1.4 Knots. During the previous week the highest precipitation was observed as 154.0 mm at Kotli while the lowest minimum temperature was recorded as -8.0°C at Gupis.

**Past Weather for Major Agricultural Plains****(3<sup>rd</sup> – 9<sup>th</sup> January, 2022)****Rawalpindi (Potohar region)**

Rainfall reported as 125.5 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 7.3/4.4 Oktas while, average relative humidity observed as 88%. Mean night time temperature recorded as 5.5°C & for the recent week 37.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.5 Knots.

**Faisalabad (Central Punjab)**

Rainfall reported as 26.6 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 6.3/6.7 Oktas while, average relative humidity observed as 83%. Mean night time temperature recorded as 9.6°C & for the recent week 46.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/0.5 Knots.

**Tandojam (Lower Sindh)**

Rainfall reported as 15.0 mm from Tandojam during the week; however, cloudiness in the morning/evening recorded as 4.3/4.1 Oktas while, average relative humidity observed as 75%. Mean night time temperature recorded as 8.7°C & for the recent week 64.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/1.5 Knots.

**Usta Muhammad (Eastern Baluchistan)**

Rainfall reported as 17.0 mm from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 5.7/4.4 Oktas while, average relative humidity observed as 77%. Mean night time temperature recorded as 8.4°C & for the recent week 60.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.4 Knots.

**Quetta (Northern Baluchistan)**

Rainfall reported as 30.1 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 5.6/6.7 Oktas while, average relative humidity observed as 80%. Mean night time temperature recorded as 0.8°C. Wind speed recorded in the morning/evening as 2.0/3.7 Knots.

**Past Weather for Sub-Regional Agricultural****Plains (3<sup>rd</sup> – 9<sup>th</sup> January, 2022)****Multan**

Rainfall reported as 8.6 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 4.7/5.7 Oktas while, average relative humidity observed as 80%. Mean night time temperature recorded as 8.1°C & for the recent week 50.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/4.0 Knots.

**Lahore**

Rainfall reported as 96.4 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 6.7/7.1 Oktas while, average relative humidity observed as 86%. Mean night time temperature recorded as 10.0°C & for the recent week 55.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

**Zhob**

Rainfall reported as 15.0 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 6.0/5.7 Oktas while, average relative humidity observed as 66%. Mean night time temperature recorded as 1.3°C & for the recent week 5.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.1/4.7 Knots.

**Murree**

Rainfall reported as 104.9 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 7.0/6.9 Oktas while, average relative humidity observed as 90%. Mean night time temperature recorded as -0.5°C. Wind speed recorded in the morning/evening as 2.6/4.0 Knots.

**D.I. Khan**

Rainfall reported as 41.0 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 5.7/6.7 Oktas while, average relative humidity observed as 82%. Mean night time temperature recorded as 8.3°C & for the recent week 49.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.3 Knots.

**Peshawar**

Rainfall reported as 79.5 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 7.1/6.9 Oktas while, average relative humidity observed as 89%. Mean night time temperature recorded as 5.5°C & for the recent week 28.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 6.6/1.1 Knots.

**Kalam**

Rainfall reported as 110.1 mm from Kalam during the week; however, 6.9.0/7.4 Oktas while, average relative humidity observed as 86%. Mean night time temperature recorded as -6.5°C & for the recent week 2.3 growing degree days accumulated. Calm wind observed in the morning/evening.

**Gilgit**

Rainfall reported as 4.9 mm weather reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 7.7/7.3 Oktas while, average relative humidity observed as 82%. Mean night time temperature recorded as 0.5°C. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

**Skardu**

Rainfall reported as 22.1 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 7.6/7.1 Oktas while, average relative humidity observed as 86%. Mean night time temperature recorded as -4.3°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)**

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

**Wheat: Very Good, Tillering Stage Completed.**

**Lower Sindh (Tandojam)**

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

**Wheat (TD-I): Good, Tillering Stage.**

**Northern Baluchistan (Quetta)**

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

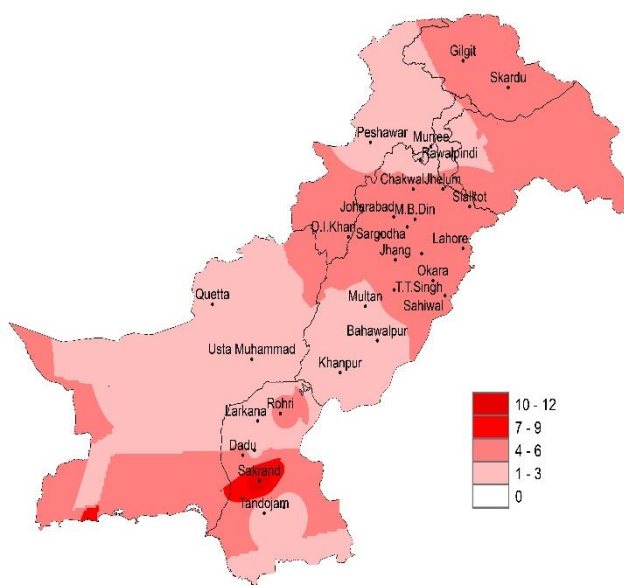
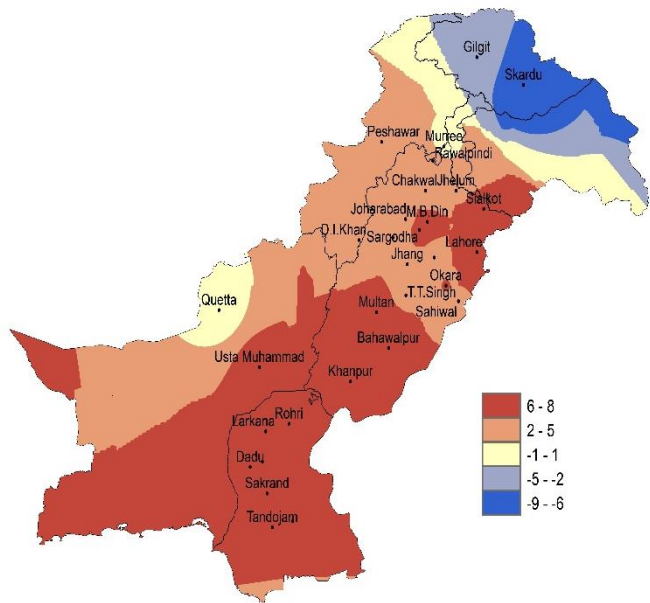
**Wheat: Good, Emergence Stage.**

**Eastern Baluchistan (Usta Muhammad)**

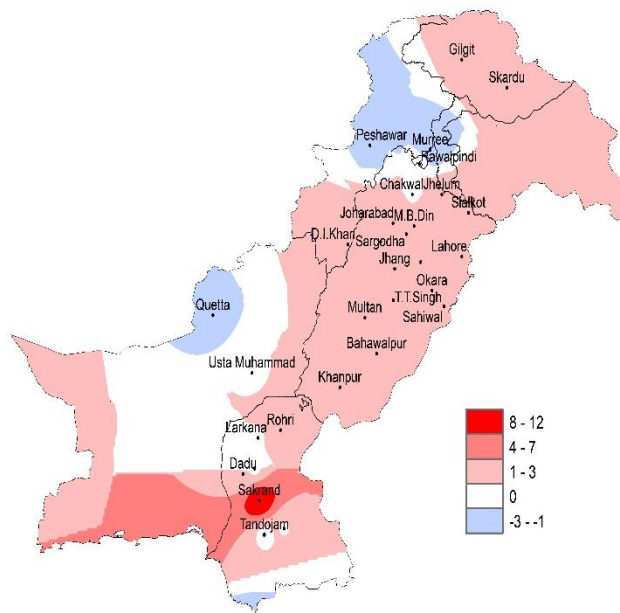
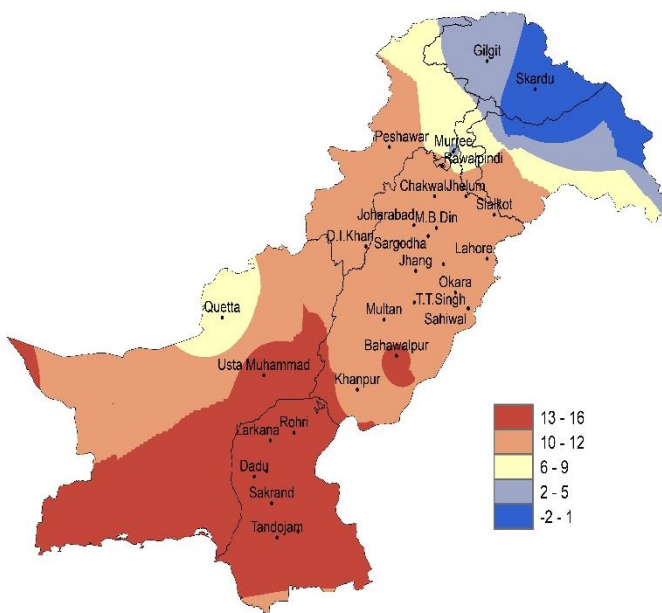
Presently Wheat crop is sown in the fields of RAMC Usta Muhammad.

**Wheat: Good, Emergence Stage.**

**Normal & Departure of Minimum temperature (°C) for the previous week (3<sup>rd</sup> – 9<sup>th</sup> January, 2022)**

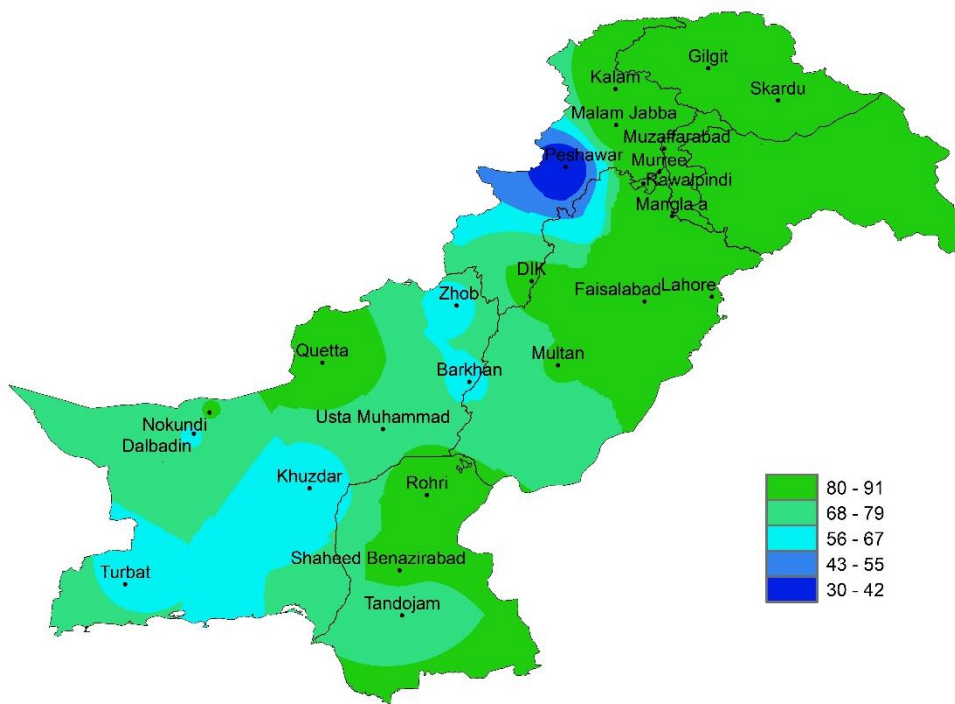


**Normal & Departure of Mean temperature (°C) for the previous week (3<sup>rd</sup> – 9<sup>th</sup> January, 2022)**

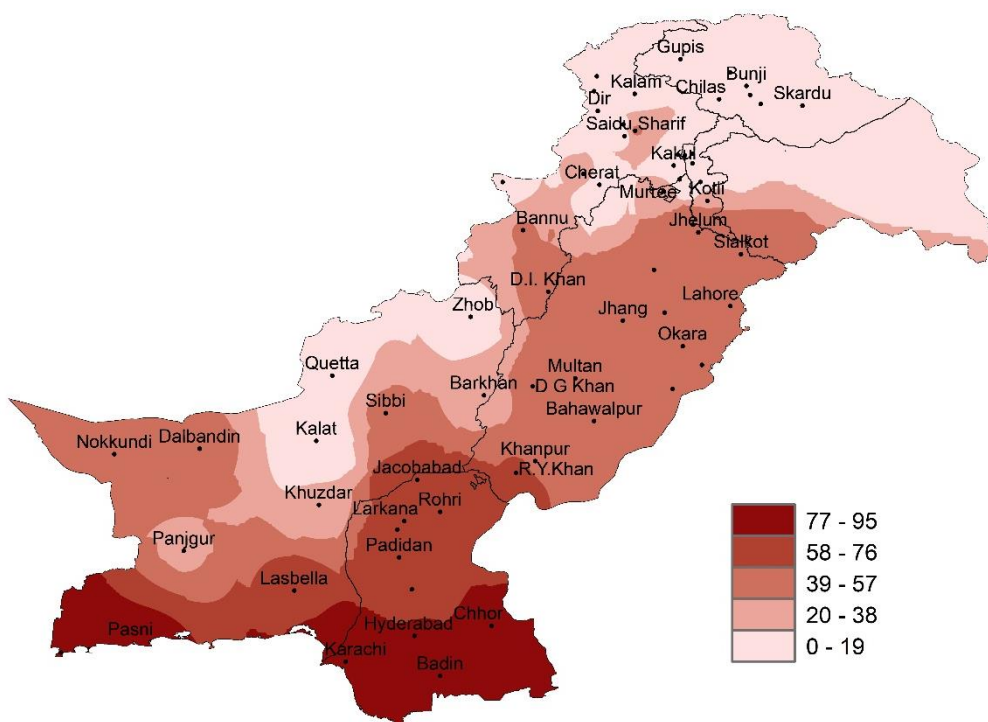




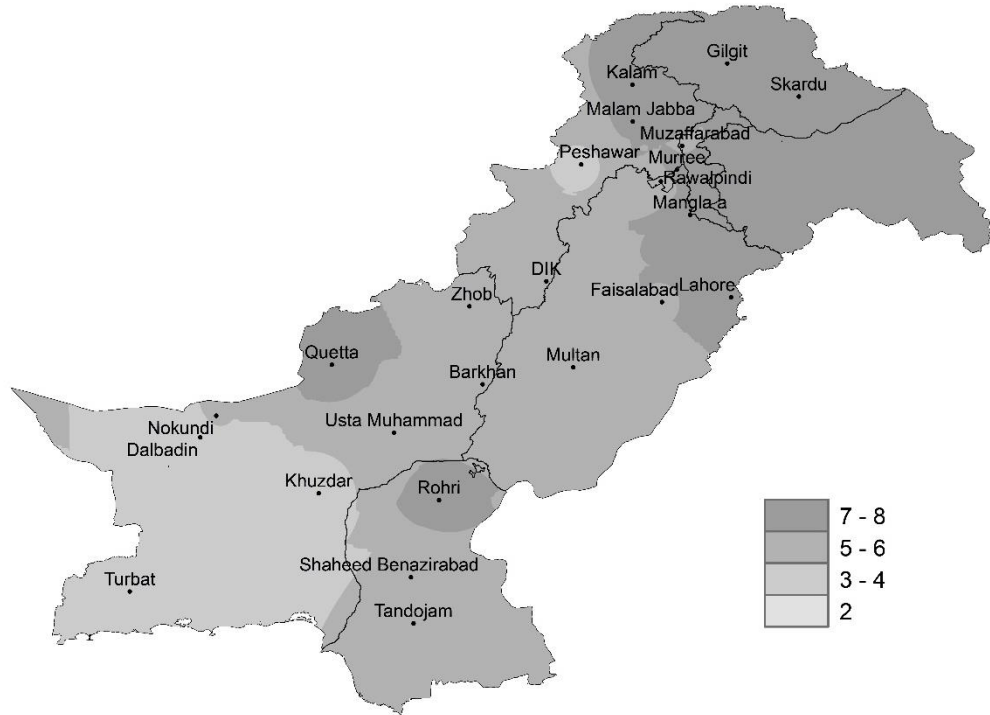
Mean Relative Humidity (%) during the previous week (3<sup>rd</sup> – 9<sup>th</sup> January, 2022)



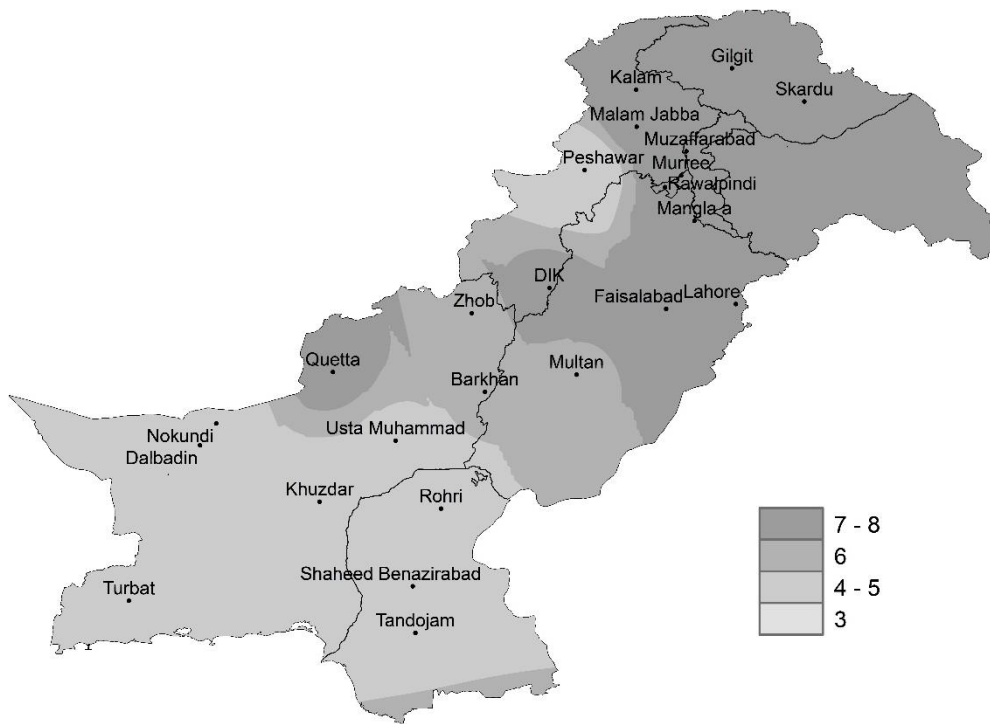
Total Growing Degree Days accumulated during the previous week (3<sup>rd</sup> – 9<sup>th</sup> January, 2022)



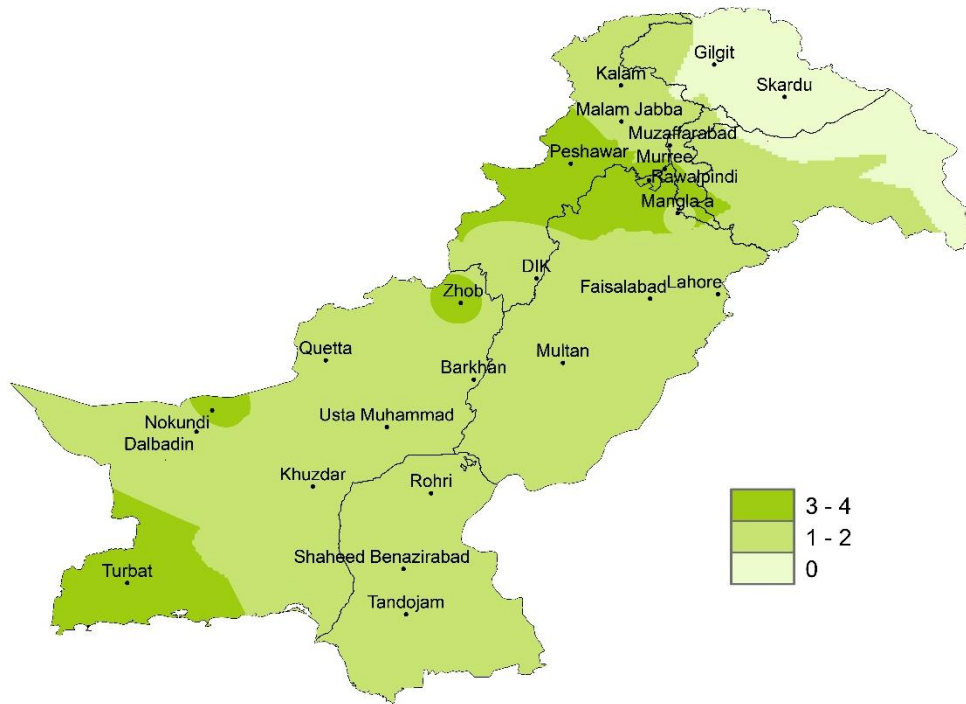
**Mean Cloudiness (Oktas) at 0800PST during the previous week (3<sup>rd</sup> – 9<sup>th</sup> January, 2022)**



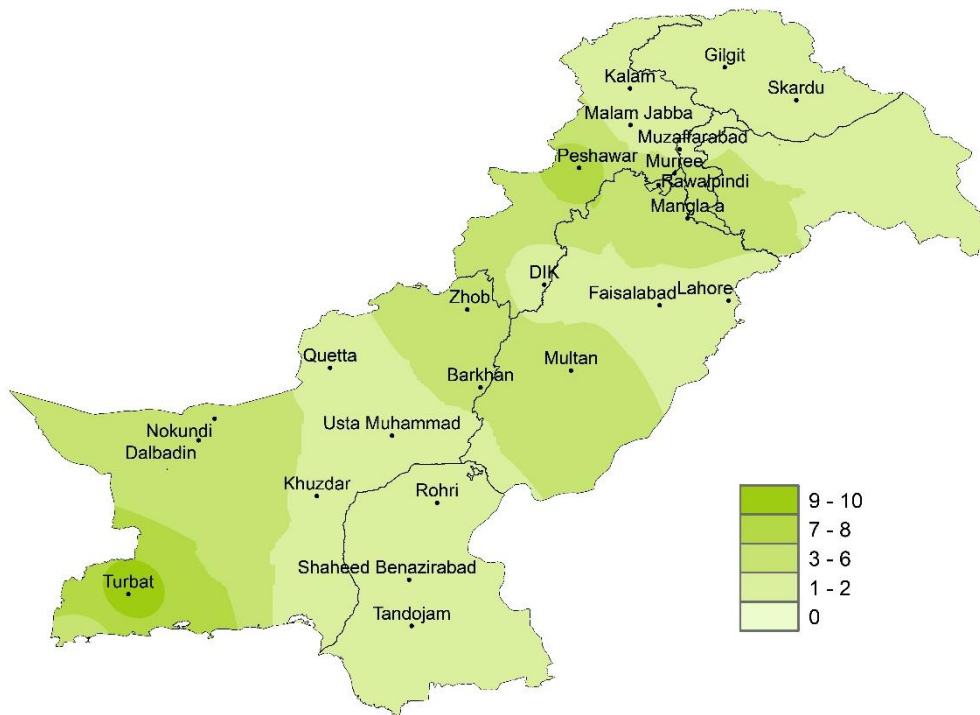
**Mean Cloudiness (Oktas) at 1700PST during the previous week (3<sup>rd</sup> – 9<sup>th</sup> January, 2022)**



**Mean Wind Speed (Knots) at 0800PST during the previous week (3<sup>rd</sup> – 9<sup>th</sup> January, 2022)**



**Mean Wind Speed (Knots) at 1700PST during the previous week (3<sup>rd</sup> – 9<sup>th</sup> January, 2022)**





**Weekly Weather Advisory for Farmers****(10<sup>th</sup>– 16<sup>th</sup> January, 2022)**

Westerly wave is present along northeast Punjab, Kashmir and adjoining areas and likely to move eastward during next 12 hours.

**MONDAY****10-01-2021**

Cold and dry weather is expected in most parts of the country, while very cold in hilly areas. Rain with snow over hills is expected at few places in Gilgit-Baltistan, Kashmir and adjoining hilly areas. Dense fog is likely to occur in upper Sindh and plain areas of Punjab, Khyber Pakhtunkhwa.

**TUESDAY****11-01-2021**

Cold and dry weather is expected in most parts of the country, while very cold in hilly areas. Dense fog is likely to occur in upper Sindh and plain areas of Punjab, Khyber Pakhtunkhwa.

**WEDNESDAY****12-01-2021**

Mainly very cold and dry weather is expected in most parts of the country. However, Dense fog is likely to prevail in few plain areas of Punjab, Khyber Pakhtunkhwa and upper Sindh.

**THURSDAY****13-01-2021**

Mainly very cold and dry weather is expected in most parts of the country. However, Dense fog is likely to prevail in few plain areas of Punjab, Khyber Pakhtunkhwa and upper Sindh.

**FRIDAY****14-01-2021.**

Mainly very cold and dry weather is expected in most parts of the country. However, Dense fog is likely to prevail in few plain areas of Punjab, Khyber Pakhtunkhwa and upper Sindh.

**SATURDAY****15-01-2022**

Mainly very cold and dry weather is expected in most parts of the country. However, Dense fog is likely to prevail in few plain areas of Punjab, Khyber Pakhtunkhwa and upper Sindh.

**SUNDAY****16-01-2022**

Mainly cold and partly cloudy weather is expected in most parts of the country. However, fog is likely to prevail in few plain areas of Punjab, Khyber Pakhtunkhwa and upper Sindh.

**ADVISORY FOR FARMERS**

During the last week, light to moderate rainfall (with isolated heavy falls) reported from Punjab, Khyber Pakhtunkhwa, Balochistan, Kashmir and Gilgit-Baltistan. Light to moderate rainfall reported from Sindh. Keeping in view the expected weather conditions farmers are advised the following advisories.

- ❖ Farmers are advised to irrigate the Crop according to its need.
- ❖ Use pesticides to avoid the attack from pests on the crops as advised by the agriculture department.

**National Weather Data of Selected Cities from (3<sup>rd</sup> – 9<sup>th</sup> January, 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	5.8	5.0	59.0	26	0.0	0.7	0.3	2.0	1.4
Dalbandin	***	***	113.0	31	0.0	0.3	0.4	0.0	1.7
D.I.Khan	7.4	6.5	80.3	62	0.0	0.6	0.0	0.0	0.0
Faisalabad	6.4	4.5	73.9	65	0.0	0	2	0.0	0.2
Gawadar	12.5	11.5	110.3	59	0.0	0.0	0.0	0.0	8.0
Gilgit	-2.5	-5.0	4.3	62	0.0	4.1	4.1	0.9	1.1
Kalam	-4.4	-6.0	2.3	58	0.5	1.7	3.7	0.0	0.0
Khuzdar	6.4	5.0	64.8	28	0.0	0.0	0.0	0.0	0.0
Lahore	9.8	8.0	82.0	64	0.0	0.4	1.7	0.0	0.0
Malam Jabba	1.2	0.0	0.0	58	0.0	1.6	2.7	5.7	3.1
Mangla	5.5	2.7	68.4	66	0.0	0.6	2.1	0.0	0.0
Multan	7.0	6.3	74.1	65	0.0	0.6	1.3	0.0	2.6
Murree	4.3	3.2	28.5	43	0.0	0.9	2.7	2.4	2.3
Muzaffarabad	3.1	2.2	37.7	74	0.0	0.6	2.1	0.0	0.0
Nawabshah	10.1	8.5	93.3	64	0.0	0.7	0.9	2.6	4.3
Nokkundi	5.6	5.0	65.3	19	0.0	0.0	1.0	1.7	3.4
Peshawar	6.8	5.0	67.3	67	0.0	2.3	2.1	0.3	0.6
Quetta	-0.4	-1.0	20.4	30	0.0	0.9	1	1.7	1.5
Rawalpindi	3.4	1.5	58.1	70	0.0	1	2	0.5	0.3
Rohri	10.6	8.5	89.8	65	0.0	0.0	0.0	1.4	1.7
Skardu	-5.7	-10.0	0.0	58	0.0	3.0	2.7	0.0	0.0
Tandojam	10.4	9.0	91.6	65	0.0	0	0	0.5	1.1
Turbat	13.8	11.0	115.0	29	0.0	1.0	1.7	0.0	3.9
Usta Muhammad	10.6	10.0	87.8	70	0.0	0	0	0.0	0.1
Zhob	2.0	1.0	33.5	45	0.0	0.0	0.4	1.1	4.4

\*\*\* 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)