

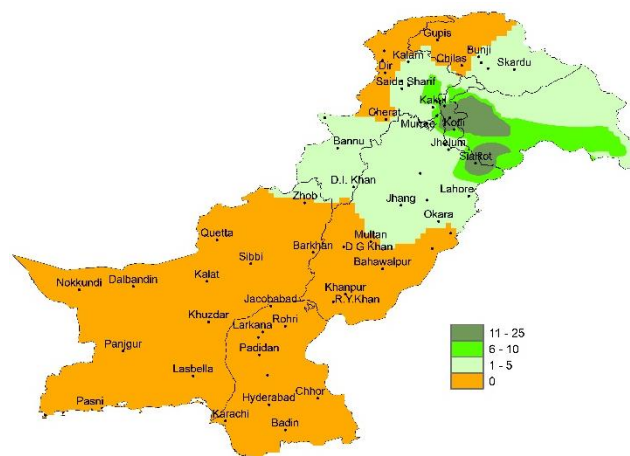
Weekly Weather and Crop Bulletin for Pakistan

NATIONAL AGROMET CENTRE PAKISTAN
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Rainfall Distribution (mm) during the Previous Week (28th December, 2020 – 3rd January, 2021)

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Highlights of Past Weather (28th December 2020, 3rd January, 2021)

Below 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 reported from Kashmir and Gilgit-Baltistan.
2. Light rainfall reported from upper/central Punjab and Khyber Pakhtunkhwa.
3. Cold and dry weather reported from Sindh, Baluchistan and south Punjab.

Past Weather of Provinces (28th December 2020, 3rd January, 2021)**Punjab**

Light rainfall reported from a few stations in Punjab during the week. Weekly maximum and minimum temperatures recorded as 17.4°C & 2.7°C respectively. For the recent week on average 35.4 growing degree days were accumulated. Average relative humidity recorded as 69% and wind speed in the morning/evening recorded as 1.1/1.5 Knots. During the previous week the highest precipitation was observed as 14.1 mm at Sialkot while the lowest minimum temperature was recorded as -2.5°C at Murree.

Baluchistan

Cold and dry weather reported from Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 17.4°C & 0.4°C respectively. For the recent week on average 34.5 growing degree days were accumulated. Average relative humidity recorded as 34% and wind speed in the morning/evening recorded as 3.0/3.8 Knots. During the previous week the lowest minimum temperature was recorded as -12.0°C at Kalat.

Khyber Pakhtunkhwa

Light rainfall reported from a few stations in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 14.7°C & 0.1°C respectively. For the recent week on average 20.1 growing degree days were accumulated. Average relative humidity recorded as 69% and wind speed in the morning/evening recorded as 1.9/1.6 Knots. During the previous week the highest precipitation was observed as 7.0 mm at Balakot while the lowest minimum temperature was recorded as -9.5°C at Kalam.

Sindh

Cold and dry weather reported from a few stations in Sindh during the week. Weekly maximum and minimum temperatures recorded as 21.4°C & 5.3°C respectively. For the recent week, on average 58.5 growing degree days were

accumulated. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 0.7/4.1 Knots. During the previous week the lowest minimum temperature was recorded as 0.0°C at Moenjodaro.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from Gilgit-Baltistan and Kashmir during the week. Weekly maximum and minimum temperatures recorded as 9.2°C & -3.8°C respectively. For the recent week on average 8.9 growing degree days were accumulated. Average relative humidity recorded as 67% and wind speed in the morning/evening recorded as 0.2/0.0 Knots. During the previous week the highest precipitation was observed as 23.4 mm at Rawalakot while the lowest minimum temperature was recorded as -13.2°C at Skardu.

Past Weather for Major Agricultural Plains
(28th December 2020, 3rd January, 2021)

Rawalpindi (Potohar region)

Rainfall reported as 0.8 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.0/1.1 Oktas while, average relative humidity observed as 77%. Mean night time temperature recorded as 2.3°C & for the recent week 39.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/0.6 Knots.

Faisalabad (Central Punjab)

Rainfall reported as trace (not measurable) from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 2.3/2.9 Oktas while, average relative humidity observed as 72%. Mean night time temperature recorded as 2.6°C & for the recent week 37.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/0.5 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 63%. Mean night time temperature recorded as 4.8°C & for the recent week 54.1 growing degree days accumulated. Cal wind reported in the morning/evening.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 0.2/0.4 Oktas while, average relative humidity observed as 55%. Mean night time temperature recorded as 4.6°C & for the recent week 56.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.2/0.0 Knots.

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 45%. Mean night time temperature recorded as -6.1°C. Wind speed recorded in the morning/evening as 1.1/2.1 Knots.

Past Weather for Sub-Regional Agricultural Plains
(28th December 2020, 3rd January, 2021)

Multan

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.4/0.6 Oktas while, average relative humidity observed as 60%. Mean night time temperature recorded as 3.0°C & for the recent week 43.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.3 Knots.

Lahore

Rainfall reported as trace (not measurable) from Lahore during the week; however, cloudiness in the morning/evening recorded as 4.0/2.6 Oktas while, average relative humidity observed as 77%. Mean night time temperature recorded as 4.0°C & for the recent week 33.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.6 Knots.

Zhob

Dry weather reported from Zhob during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 34%. Mean night time temperature recorded as -5.0°C. Wind speed recorded in the morning/evening as 5.0/7.6 Knots.

Murree

Rainfall reported as 7.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 3.0/2.0 Oktas while, average relative humidity observed as 70%. Mean night time temperature recorded as -1.8°C. Wind speed recorded in the morning/evening as 3.3/1.7 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 1.0/0.0 Oktas while, average relative humidity observed as 64%. Mean night time temperature recorded as 3.0°C & for the recent week 49.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/0.6 Knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.0/1.7 Oktas while, average relative humidity observed as 68%. Mean night time temperature recorded as 1.5°C & for the recent week 39.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/1.4 Knots.

Kalam

Dry weather reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.9/1.6 Oktas while, average relative humidity observed as 75%. Mean night time temperature recorded as -8.8°C. Calm wind reported in the morning/evening.

Gilgit

Dry weather reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 3.4/2.3 Oktas while, average relative humidity observed as 65%. Mean night time temperature recorded as -4.4°C. Wind speed recorded in the morning/evening as 0.9/0.0 Knots.

Skardu

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.6/4.4 Oktas while, average relative humidity observed as 65%. Mean night time temperature recorded as -9.2°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: V. Good, Tillering Stage.

Lower Sindh (Tandojam)

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

Wheat: Good, Crop Variety (TD-1), Tillering Stage

Northern Baluchistan (Quetta)

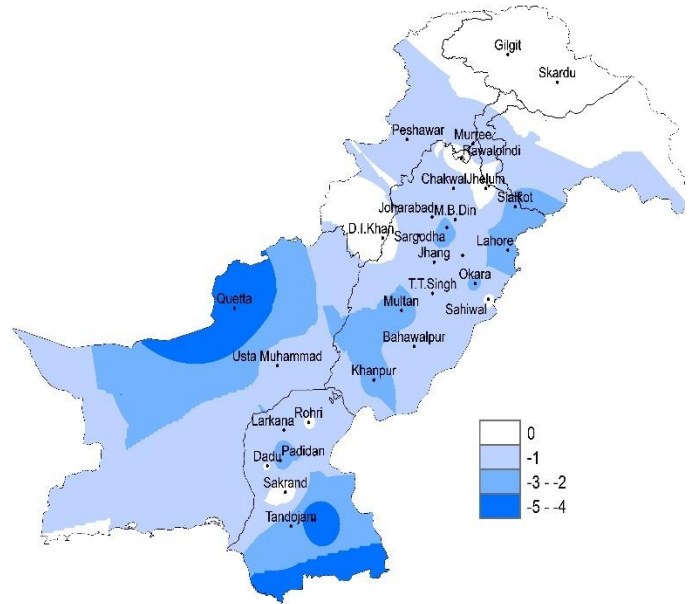
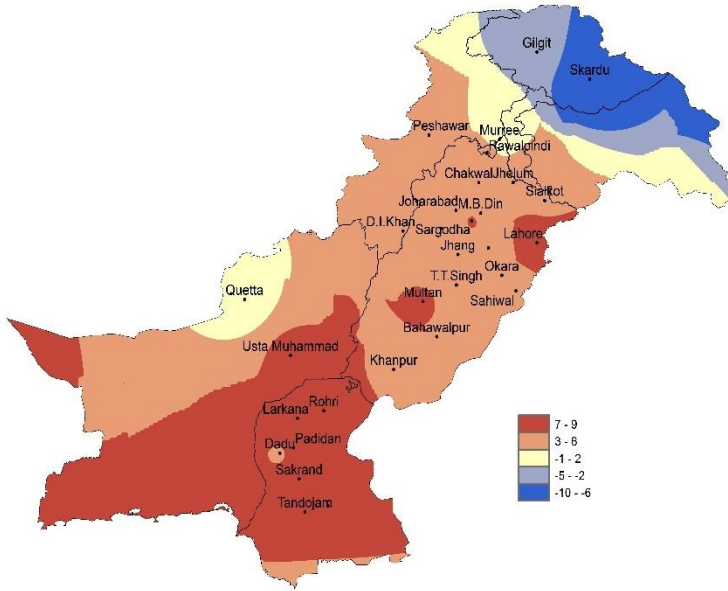
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

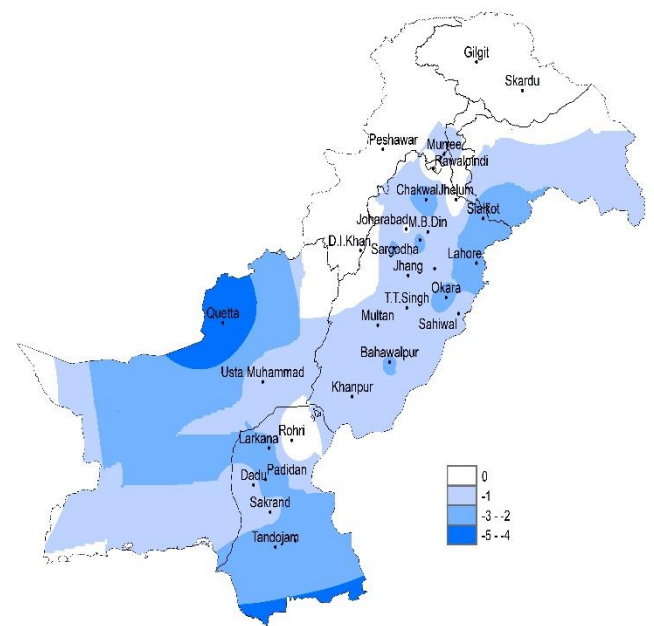
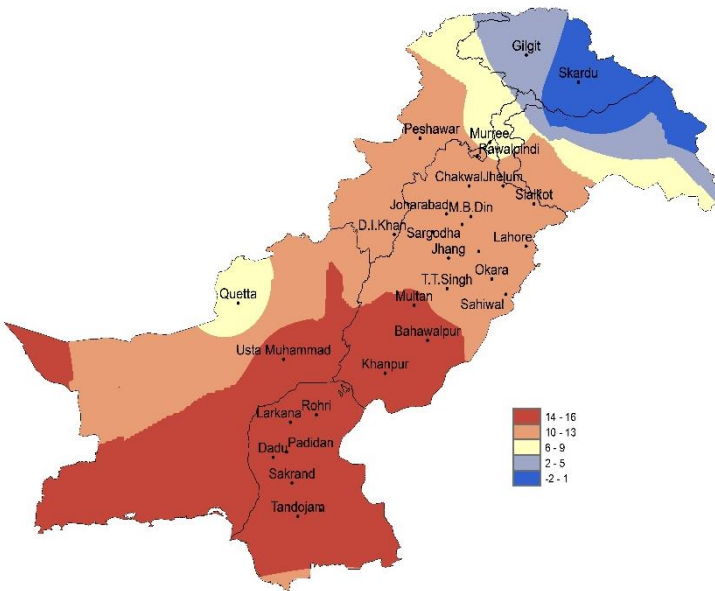
Presently wheat crop is sown in the fields of RAMC Usta Muhammad.

Wheat: Good, Emergence Stage.

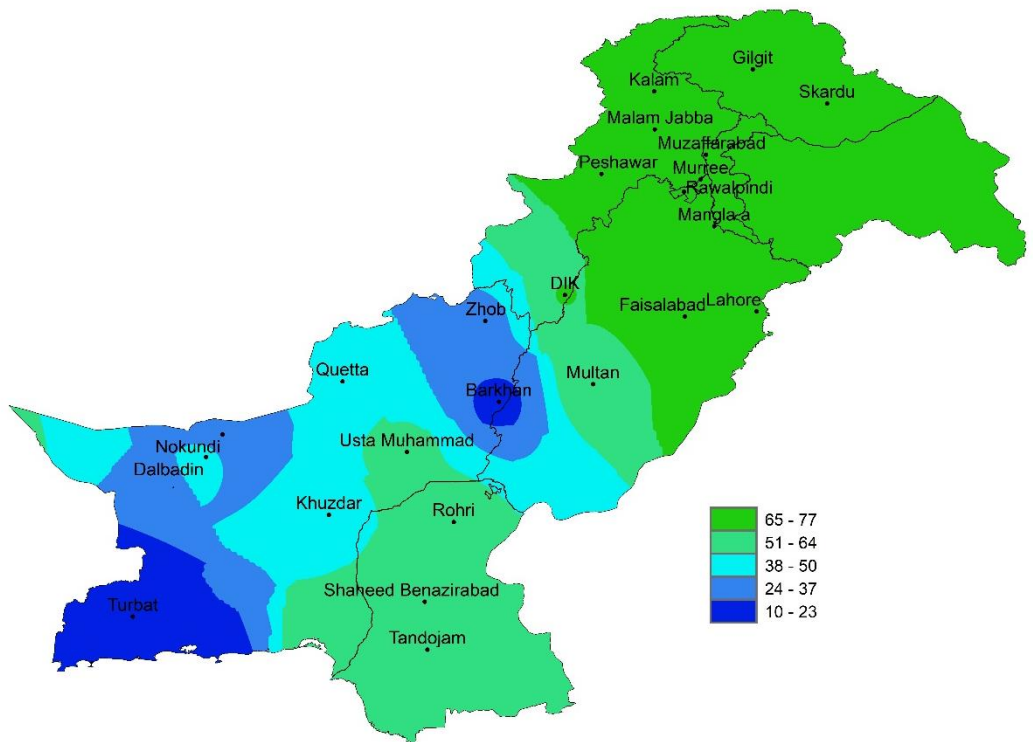
Normal & Departure of Minimum temperature (°C) for the previous week (28th December, 2020 – 3rd January, 2021)



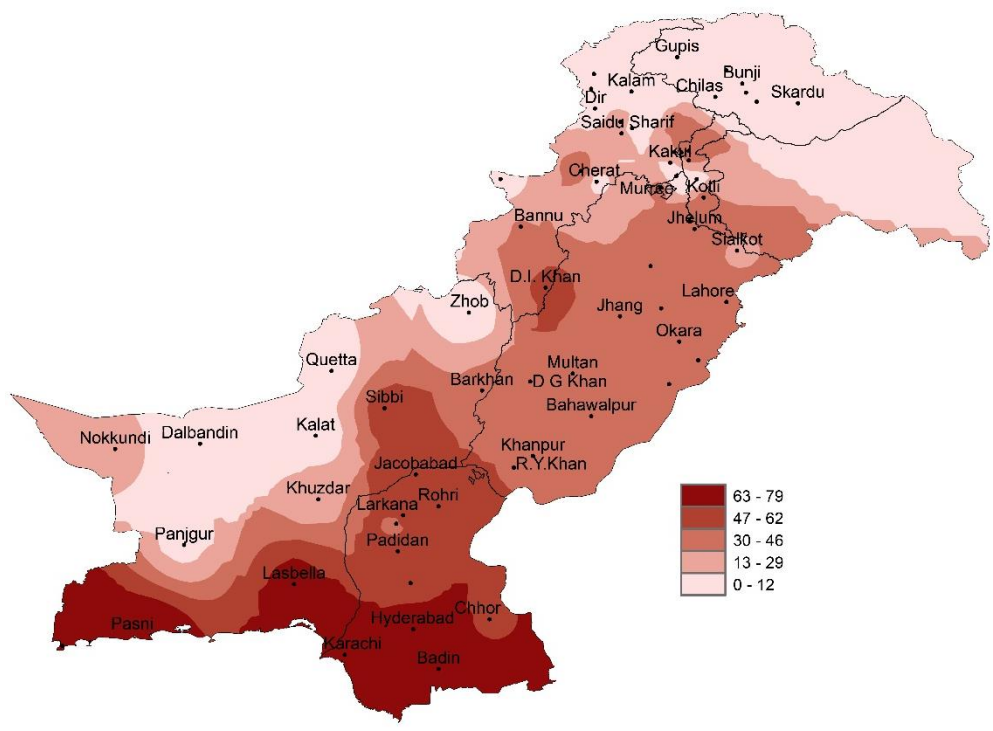
Normal & Departure of Mean temperature (°C) for the previous week (28th December, 2020 – 3rd January, 2021)



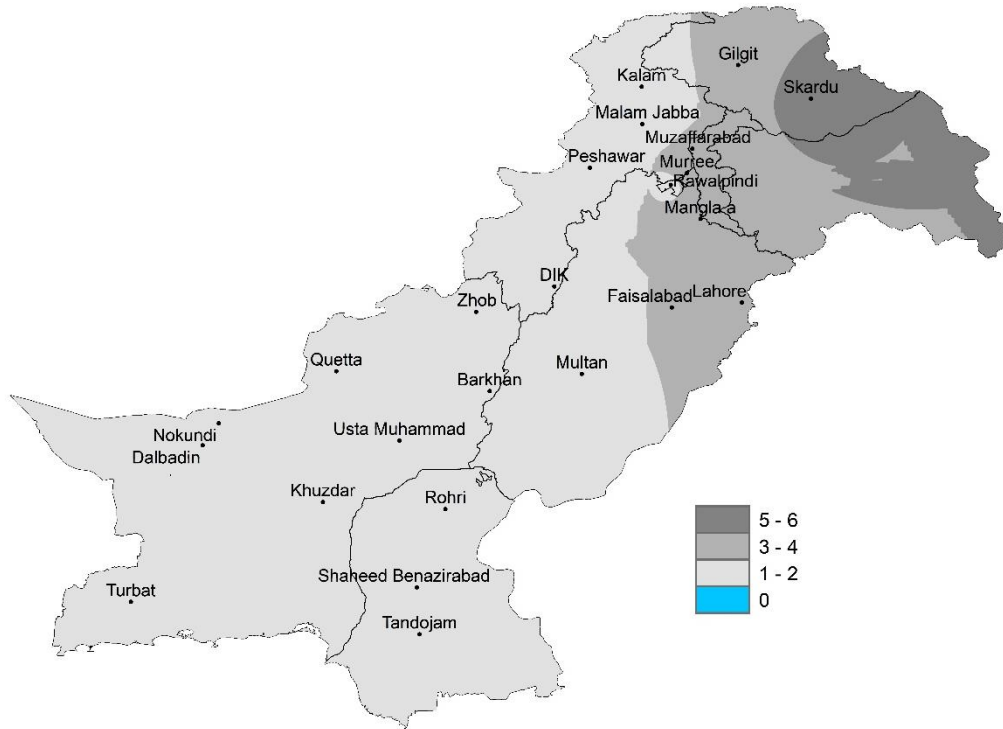
Mean Relative Humidity (%) during the previous week (28th December, 2020 – 3rd January, 2021)



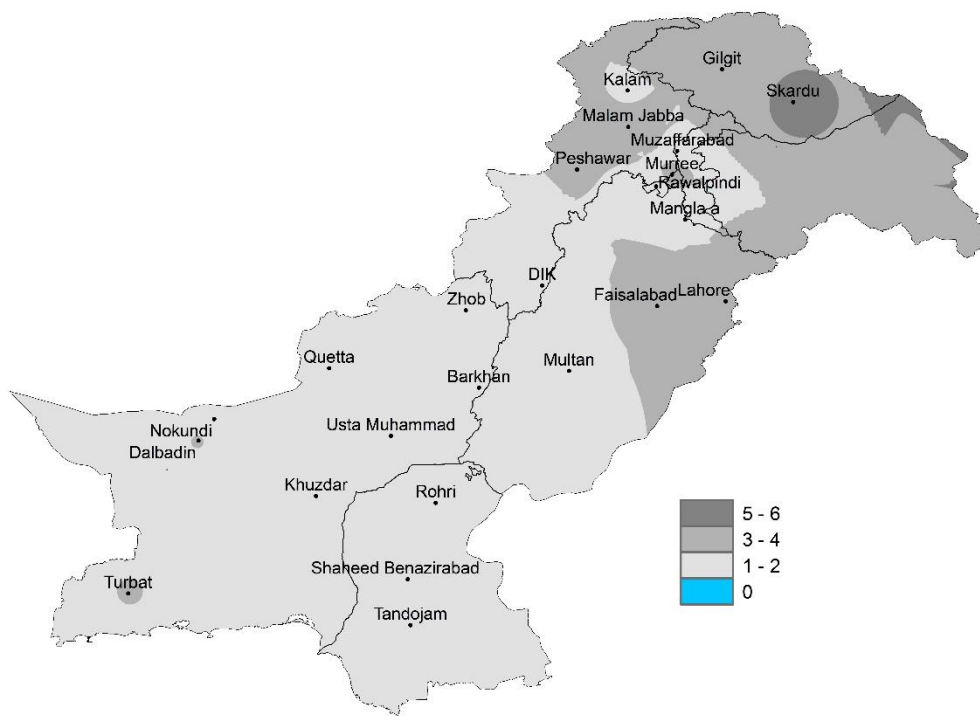
Total Growing Degree Days accumulated during the previous week (28th December, 2020 – 3rd January, 2021)



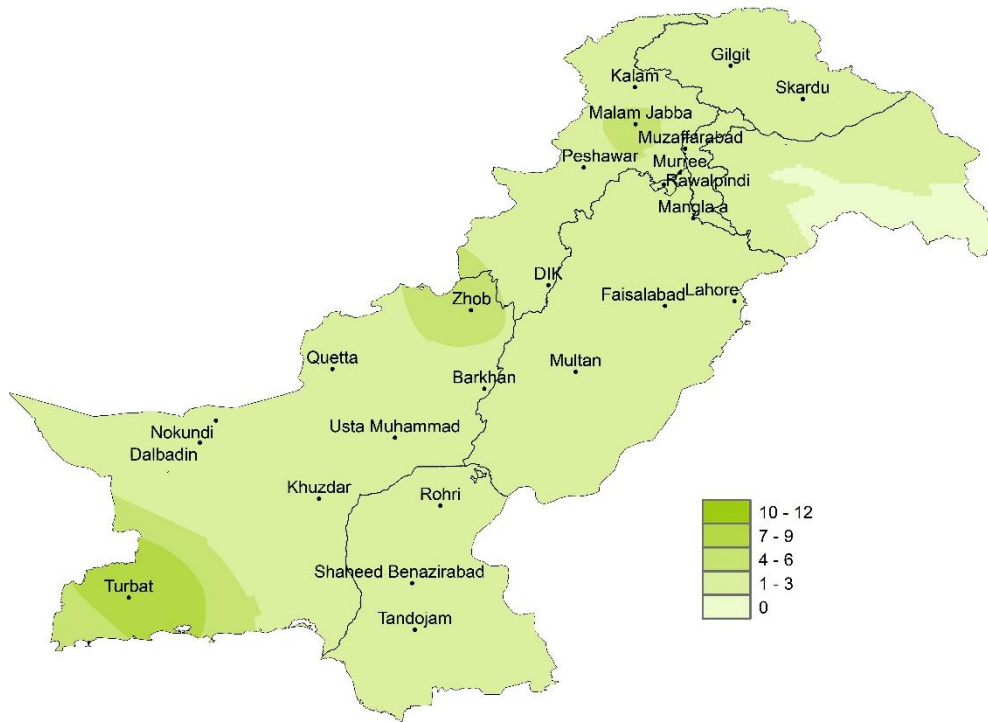
Mean Cloudiness (Oktas) at 0800PST during the previous week (28th December, 2020 – 3rd January, 2021)



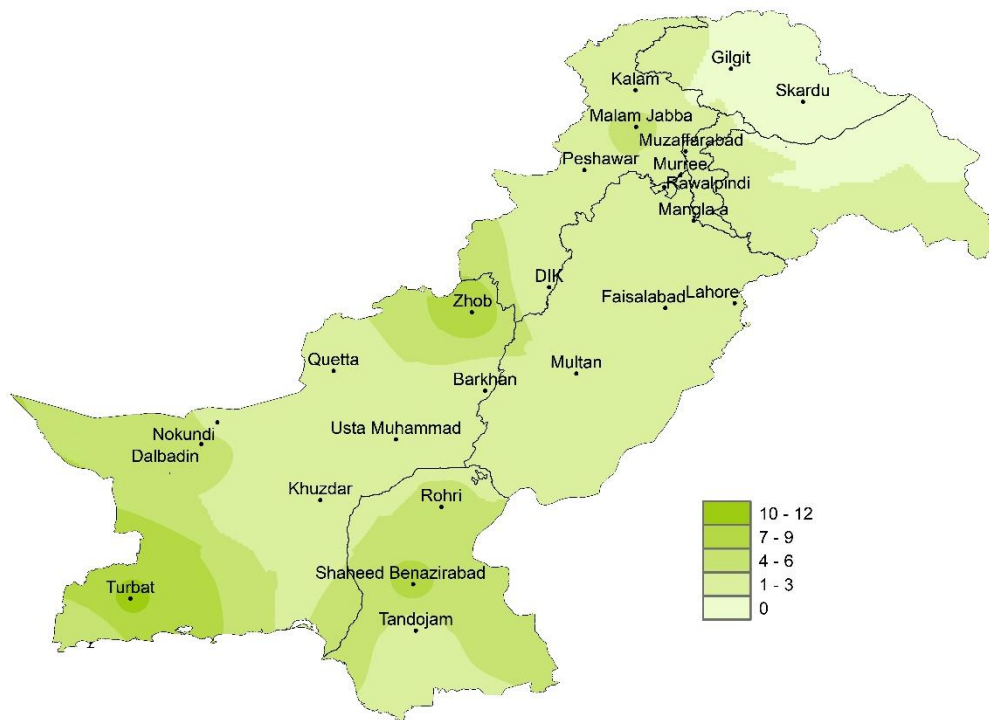
Mean Cloudiness (Oktas) at 1700PST during the previous week (28th December, 2020 – 3rd January, 2021)



Mean Wind Speed (Knots) at 0800PST during the previous week (28th December, 2020 – 3rd January, 2021)



Mean Wind Speed (Knots) at 1700PST during the previous week (28th December, 2020 – 3rd January, 2021)



Weekly Weather Advisory for Farmers**(4th – 10th January, 2021)**

A strong westerly wave is present over upper parts of the country and likely to persist in upper parts of the country till Tuesday. Moist currents from Arabian sea and Bay of Bengal are reaching northeastern parts of the country.

MONDAY**04-01-2021**

Rain-thunderstorm (with snowfall over hills) is expected in Islamabad, upper/central Punjab, Khyber Pakhtunkhwa and Kashmir. Isolated heavy falls are also expected in north eastern Punjab, Potohar region and Kashmir during evening/night. Cold and dry weather is expected elsewhere in the country.

TUESDAY**05-01-2021**

Rain-thunderstorm (with snowfall over hills) is expected in Islamabad, upper/central Punjab, upper Khyber Pakhtunkhwa, Gilgit-Baltistan and Kashmir. Isolated heavy falls are also expected in north eastern Punjab, Potohar region and Kashmir. Cold and dry weather is expected elsewhere in the country.

WEDNESDAY**06-01-2021**

Cold and dry weather is expected in most parts of the country. However, rain-thunderstorm (with snowfall over hills) is expected in Kashmir and Gilgit-Baltistan. Dense fog is likely in plain areas of Punjab and upper Sindh during morning/night hours.

THURSDAY**07-01-2021**

Cold and dry weather is expected in most parts of the country. However, rain-thunderstorm (with snowfall over hills) is expected in Khyber Pakhtunkhwa, Kashmir and adjoining hilly areas. Dense fog is likely in plain areas of Punjab and upper Sindh during morning/night hours.

FRIDAY**08-01-2021**

Cold and dry weather is expected in most parts of the country. However, rain-thunderstorm (with snowfall over hills) is expected in upper Khyber Pakhtunkhwa, Potohar region, Kashmir and Gilgit-Baltistan. Dense fog is likely in central, south Punjab and upper Sindh during morning/night hours.

SATURDAY**09-01-2021**

Cold and dry weather is expected in most parts of the country, while very cold in upper parts and north Balochistan. Dense fog is likely in plain areas of Punjab and upper Sindh during morning/night hours.

SUNDAY**10-01-2021**

Cold and dry weather is expected in most parts of the country, while very cold in upper parts and north Balochistan. Dense fog is likely in plain areas of Punjab and upper Sindh during morning/night hours.

ADVISORY FOR FARMERS

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

- ❖ Farmers should make proper arrangements to protect their nurseries, fruit plants and vegetables from severe cold weather.

National Weather Data of Selected Cities from (28th December 2020, 3rd January, 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	2.8	2.0	32.8	19	0.00	0.1	0.4	1.1	0.9
Dalbandin	-5.1	-6.0	0.0	41	0.00	0.4	1.7	0.0	3.7
D.I. Khan	3.0	1.0	49.5	64	0.00	1.0	0.0	0.6	0.6
Faisalabad	2.6	1.0	37.5	72	0.01	2.3	2.9	0.3	0.5
Gawadar	7.8	5.5	78.0	23	0.00	0.9	1.0	4.0	3.7
Gilgit	-4.4	-7.0	0.0	65	0.00	3.4	2.3	0.9	0.0
Kalam	-8.8	-9.7	0.0	75	0.00	0.9	1.6	0.0	0.0
Khuzdar	-0.4	-1.5	22.0	45	0.00	0.1	1.1	0.0	0.0
Lahore	4.0	3.0	33.1	77	0.01	4.0	2.6	0.0	0.6
Malam Jabba	-3.2	-5.0	0.0	69	4.00	1.6	2.1	6.0	4.6
Mangla	2.5	-0.5	39.9	71.1	0.81	2.9	1.4	0.0	0.0
Multan (PBO)	3.0	1.7	43.7	60	0.00	1.4	0.6	0.0	2.3
Murree	-1.8	-2.5	0.0	70	7.00	3.0	2.0	3.3	1.7
Muzaffarabad	2.0	1.0	27.2	67	8.50	2.3	1.4	0.0	0.0
Nokkundi	4.4	4.0	59.1	59	0.00	1.0	0.6	1.4	6.9
Nawabshah	-1.4	-3.0	16.5	25	0.00	0.9	1.1	1.1	2.6
Peshawar	1.5	1.0	39.5	68	0.00	0.0	1.7	0.9	1.4
Quetta	-6.1	-7.0	0.0	45	0.00	0.6	0.6	1.1	2.1
Rawalpindi	2.3	0.1	39.7	77	0.80	2.0	1.1	0.5	0.6
Rohri	6.9	4.5	61.8	59	0.00	0.4	0.0	0.6	3.7
Skardu	-9.2	-13.2	0.0	65	0.00	4.6	4.4	0.0	0.0
Tandojam	4.8	3.0	54.1	63	0.00	0.0	0.0	0.0	1.7
Turbat	11.2	9.5	85.0	10	0.00	0.7	1.7	8.3	9.4
Usta. M	4.6	4.0	56.0	55	0.00	0.2	0.4	0.2	0.0
Zhob	-5.0	-6.0	0.0	34	0.00	0.0	0.0	5.0	7.6

*** 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 2012-2014)