

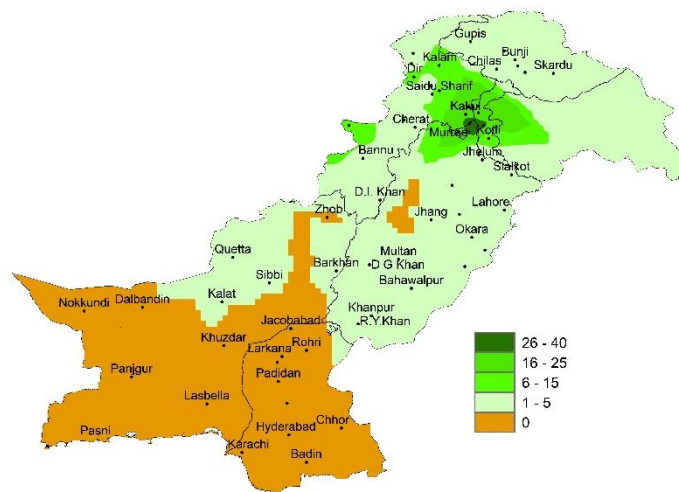
Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the Previous
Week (14th November – 20th November, 2022)**



Highlights of Past Weather (14th November – 20th November, 2022)

Normal to above normal temperature was recorded in Punjab, Sindh, Baluchistan whereas below normal temperature recorded in upper parts of KPK.

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

1. Light rainfall reported from the most parts of the Punjab.
2. Light rainfall reported from most parts of Khyber Pakhtunkhwa with light to moderate rainfall in upper KPK.
3. Dry weather reported from Sindh.
4. Light rainfall reported from Northern parts of Baluchistan.
5. Light rainfall reported from GB and light to moderate rainfall reported from Kashmir.

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Past Weather of Provinces (14th November – 20th November, 2022)

Punjab

Light rainfall reported from the most parts of the Punjab. Weekly maximum and minimum temperatures recorded as 24.1°C & 11.4°C respectively. For the recent week on average 89.1 growing degree days were accumulated. Average relative humidity recorded as 63% and wind speed in the morning/evening recorded as 1.5/1.7 Knots. During the previous week the lowest minimum temperature was recorded as 2.8°C at Murree. Highest rainfall reported as 35.5 mm at Murree.

Baluchistan

Light rainfall reported from Northern parts of Baluchistan. Weekly maximum and minimum temperatures recorded as 26.0.0°C & 11.9°C respectively. For the recent week on average 97.5 growing degree days were accumulated. Average relative humidity recorded as 52% and wind speed in the morning/evening recorded as 0.8/5.3 Knots. During the previous week the lowest minimum temperature was recorded as -2.5°C at Kalat. Highest rainfall reported as 0.4mm at Quetta.

Khyber Pakhtunkhwa

Light rainfall reported from most parts of Khyber Pakhtunkhwa with light to moderate rainfall in upper KPK. Weekly maximum and minimum temperatures recorded as 17.8°C & 05.3°C respectively. For the recent week on average 47.1 growing degree days were accumulated. Average relative humidity recorded as 76% and wind speed in the morning/evening recorded as 1.3/0.8 Knots. During the previous week the lowest minimum temperature was recorded as -6.0°C at Kalam. Highest rainfall reported as 26.0 mm at Balakot.

Sindh

Dry weather reported from Sindh province. Weekly maximum and minimum temperatures recorded as 29.8°C & 17.4°C respectively. For the

recent week, on average 130.2 growing degree days were accumulated. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 1.1/2.4 Knots. Lowest minimum temperature was recorded as 13.5°C at Mithi.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light rainfall reported from GB and light to moderate rainfall reported from Kashmir. Weekly maximum and minimum temperatures recorded as 14.1°C & 2.9°C respectively. For the recent week on average 27.1 growing degree days were accumulated. Average relative humidity recorded as 72% and wind speed in the morning/evening recorded as 0.2/0.5 Knots. During the previous week the lowest minimum temperature was recorded as -04.5°C at Skardu. Highest rainfall reported as 26.5 mm at Rawalakot.

Past Weather for Major Agricultural Plains **(14th November – 20th November, 2022)**

Rawalpindi (Potohar region)

Rainfall reported as 12.5mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.4/2.1 Oktas while, average relative humidity observed as 79%. Mean night time temperature recorded 5.9°C & for the recent week 62.1 growing degree days were accumulated. Wind speed recorded in the morning/evening as 0.3/0.3 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 1.0mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 2.3/1.0 Oktas while, average relative humidity observed as 66%. Mean night time temperature recorded as 10.9°C & for the recent week 95.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.5/0.8 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/1.0 Oktas, average relative humidity observed as 67%. Mean night time temperature recorded as 15.4°C & for the recent week 128.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/1.1 Knots.

Quetta (Northern Baluchistan)

Rainfall reported as 0.4mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 2.7/5.7 Oktas while, average relative humidity observed as 39%. Mean night time temperature recorded as 1.7°C & for the recent week 30.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.3/1.2 Knots.

Past Weather for Sub-Regional Agricultural Plains **(24th October – 30th October, 2022)**

Multan

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.9/1.6 Oktas. Average relative humidity observed as 64%. Mean night time temperature recorded as 12.8°C & for the recent week 100.7 growing degree days accumulated.

Wind speed recorded in the morning/evening as 2.0/1.7 Knots

Lahore

Rainfall reported as 0.7mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 1.2/1.4 Oktas, average relative humidity observed as 66%. Mean night time temperature recorded as 13.1°C & for the recent week 95.6 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/2.0 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 1.7/0.9 Oktas while, average relative humidity observed as 42%. Mean night time temperature recorded as 6.6°C & for the recent week 57.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.3/3.3 Knots.

Murree

Rainfall reported as 35.5mm from Murree during the week; however, cloudiness in the morning/evening recorded as 3.6/4.1 Oktas while, average relative humidity observed as 60%. Mean night time temperature recorded as 4.5°C & for the recent week 23.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/1.4 Knots.

D.I. Khan

Dry weather reported from DI Khan during the week; however, cloudiness in the morning/evening recorded as 2.0/0.0 Oktas, average relative humidity observed as 72%. Mean night time temperature recorded as 12.1°C & for the recent week 96.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/1.1.

Peshawar

Rainfall reported as 0.03mm during the week; however, cloudiness in the morning/evening recorded as 3.4/1.9 Oktas while, average relative humidity observed as 75%. Mean night time temperature recorded as 10.3°C & for the recent week 78.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/1.4 Knots.

Kalam

Rainfall reported as 8.0mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 4.3/4.4 Oktas while, average relative humidity observed as 65%. Mean night time temperature recorded as -3.8°C & for the recent week no growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

Gilgit

Rainfall reported as 1.2mm from Gilgit during the week, cloudiness in the morning/evening recorded as 6.4/4.7 Oktas while, average relative humidity observed as 73%. Mean night time temperature recorded as 3.6°C & for the recent week 31.1 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

Skardu

Rainfall reported as 1.8 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 5.7/4.5 Oktas while, average relative humidity observed as 65%. Mean night time temperature recorded as -2.2°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 Centers)****Potohar Region (Rawalpindi)**

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

Central Punjab (Faisalabad)

Wheat crop. Irrigated, very good, sowing on 10-11-2022. Emergence stage.

Lower Sindh (Tandojam)

Wheat (TJ 83) Sowing on 09-11-2022. Irrigated, Good, Germination stage.

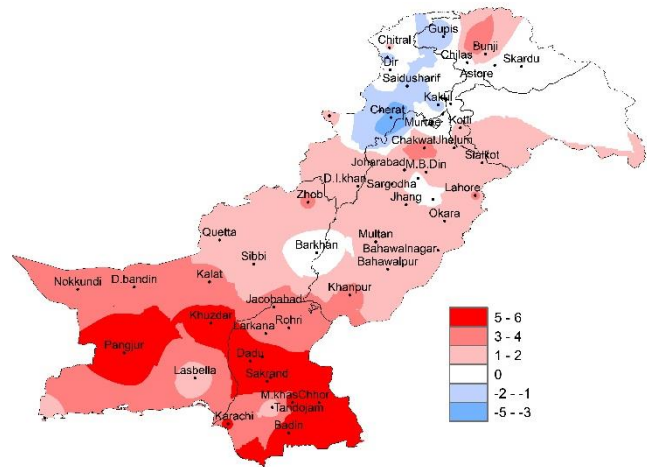
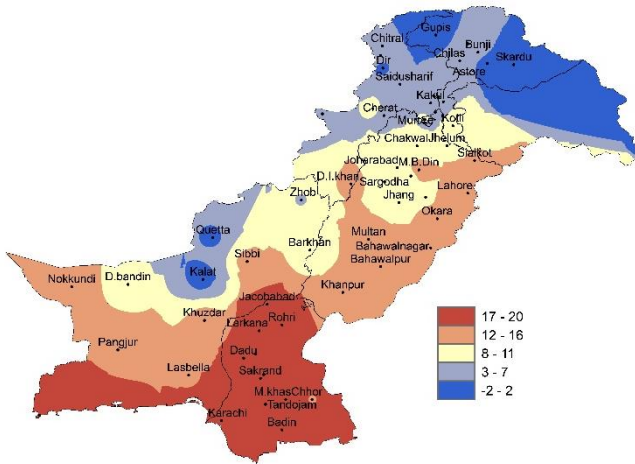
Northern Baluchistan (Quetta)

No Crop grown presently. Wheat crop harvested on 24-05-2022 at RAMC Quetta. At present no crop grown in the fields.

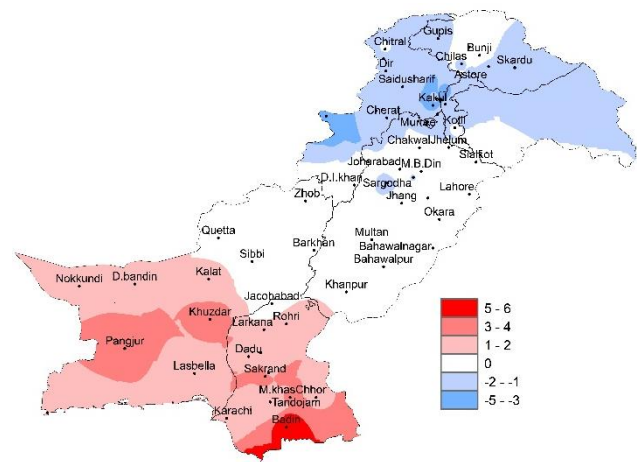
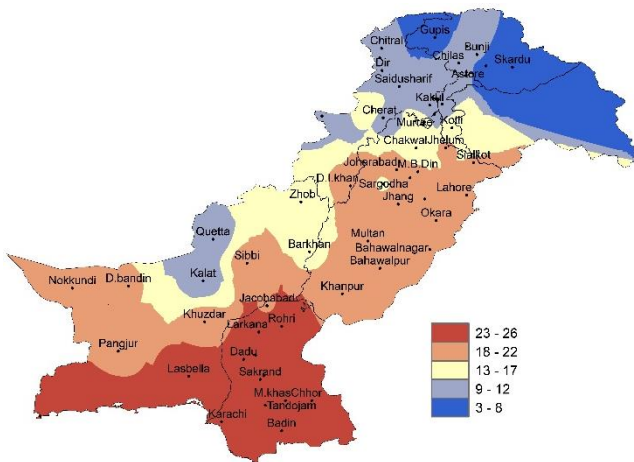
Eastern Baluchistan (Usta Muhammad)

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

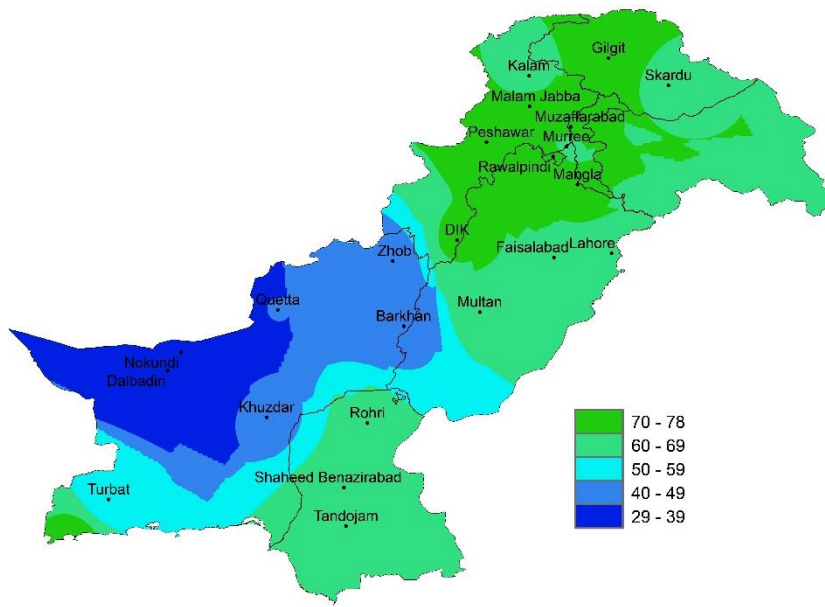
Actual & Departure of Minimum temperature (°C) for the Previous week (14th November – 20th November, 2022)



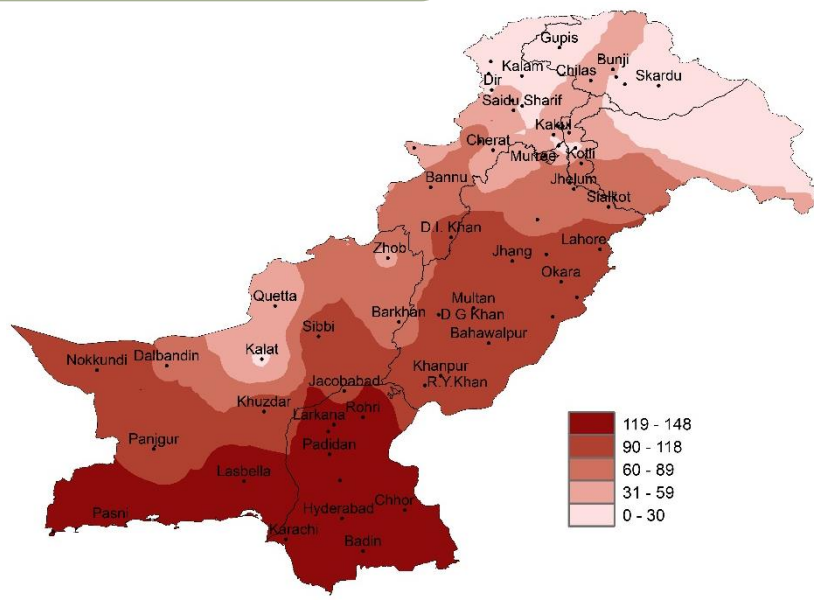
Actual & Departure of Mean temperature (°C) for the Previous week (14th November – 20th November, 2022)



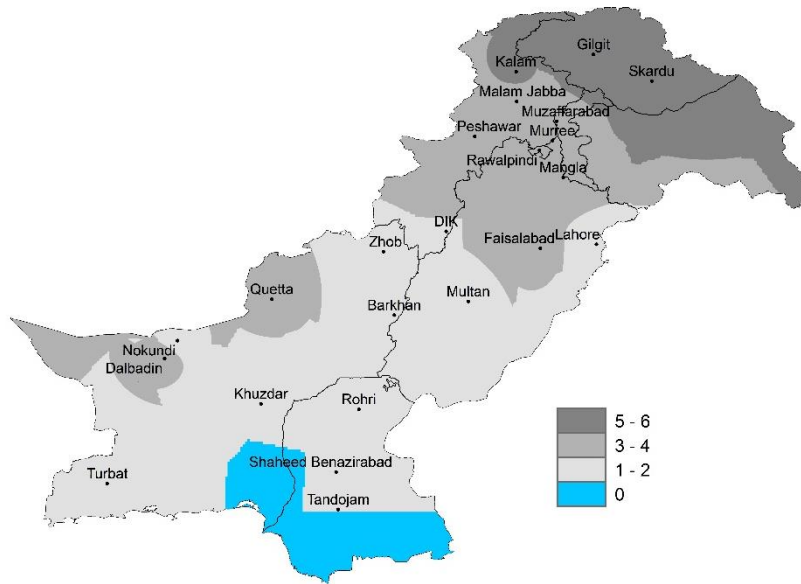
**Mean Relative Humidity (%) during the
Previous week (14th November – 20th November, 2022)**



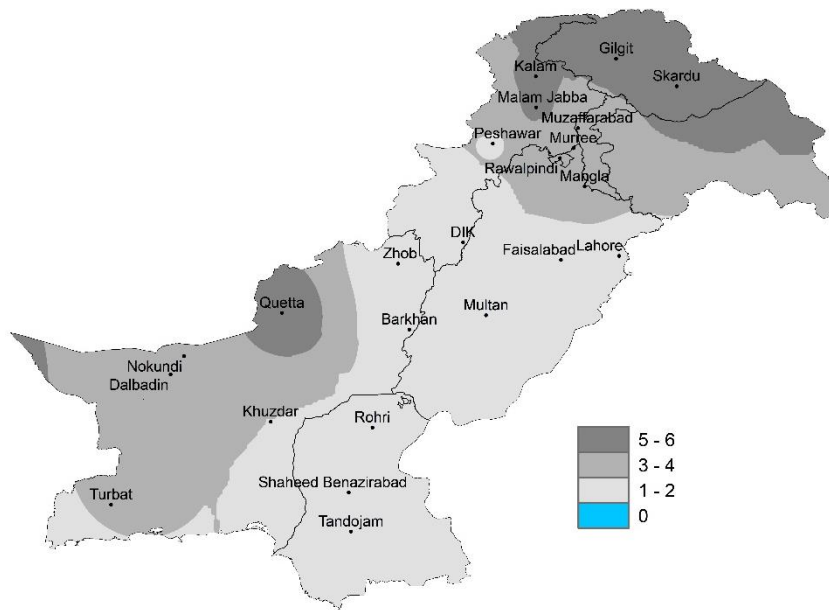
**Total Growing Degree Days accumulated during the
Previous week (14th November – 20th November, 2022)**



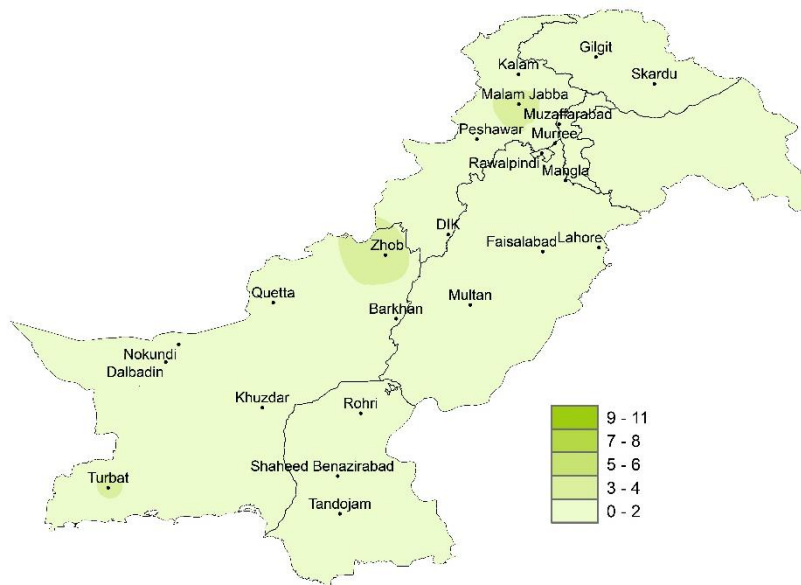
Mean Cloudiness (Oktas) at 0800PST during the
Previous week (14th November – 20th November, 2022)



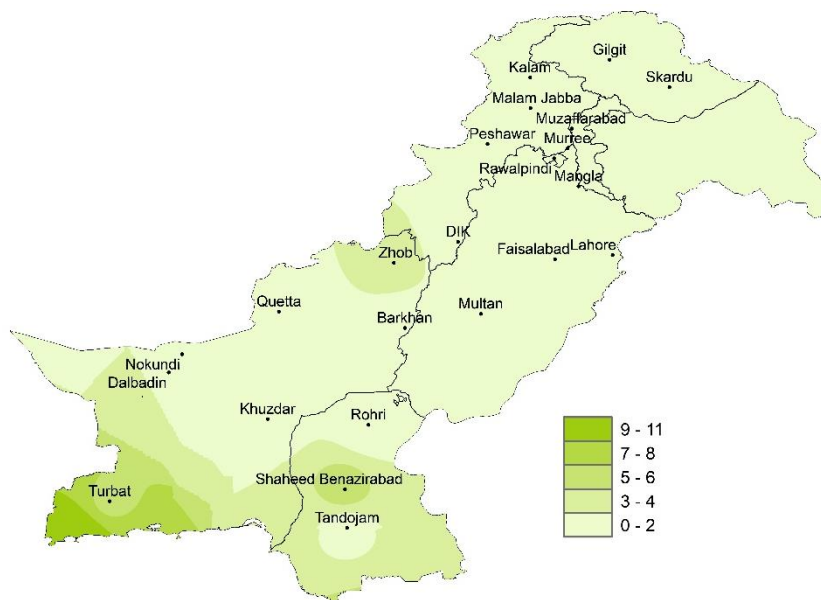
Mean Cloudiness (Oktas) at 1700PST during the
Previous week (14th November – 20th November, 2022)



Mean Wind Speed (Knots) at 0800PST during the Previous week (14th November – 20th November, 2022)



Mean Wind Speed (Knots) at 1700PST during the Previous week (14th November – 20th November, 2022)



Weekly Weather Advisory for Farmers**(21th November – 27th November, 2022)**

Continental air is prevailing over most parts of the country.

MONDAY**21-11-2022**

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

TUESDAY**22-11-2022**

Mainly cold and dry weather is expected in most parts of the country. However, foggy conditions likely in plain areas of Punjab in morning hours.

WEDNESDAY**23-11-2022**

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

THURSDAY**24-11-2022**

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

FRIDAY**25-11-2022**

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

SATURDAY**26-11-2022**

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

SUNDAY**27-11-2022**

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

ADVISORY FOR FARMERS

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

National Weather Data of Selected Cities from (14th November – 20th November, 2022)

Stations	Minimum/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	Lowest							
D.I. Khan	12.07	11.50	96.00	72.39	0.00	2.00	0.00	1.14	1.14
Faisalabad	10.90	9.00	95.00	66.00	1.00	2.30	1.00	0.50	0.80
Gawadar	19.43	18.00	145.75	74.86	0.00	0.00	0.57	0.00	11.43
Gilgit	3.63	0.00	31.05	72.86	1.20	6.43	4.71	0.00	0.00
Kalam	-3.81	-6.00	0.00	65.29	8.10	4.29	4.43	0.00	0.00
Khuzdar	13.07	12.50	102.00	41.00	0.00	0.00	2.00	0.00	1.14
Lahore	13.09	11.60	95.55	66.40	0.70	1.20	1.40	0.80	2.00
Malam Jabba	0.00	-2.00	0.00	70.50	11.00	3.50	4.50	3.67	0.33
Mangla	10.70	8.20	85.10	72.07	0.20	3.14	3.14	0.86	2.00
Multan (PBO)	12.77	11.00	100.70	64.21	0.00	1.86	1.57	2.00	1.71
Murree	4.53	2.80	23.45	59.71	35.50	3.57	4.14	1.71	1.43
Muzaffarabad	5.89	5.60	43.20	77.88	14.21	3.00	3.33	0.00	0.00
Nawabshah	17.21	15.50	129.00	67.93	0.00	0.00	0.86	1.57	5.43
Peshawar	10.27	9.50	77.95	74.64	0.03	3.43	1.86	0.29	1.43
Quetta	1.70	-1.50	30.50	39.00	0.40	2.70	5.70	1.30	1.20
Rawalpindi	5.90	4.80	62.10	78.60	12.50	3.40	2.10	0.30	0.30
Rohri	17.29	17.00	126.00	63.43	0.00	0.43	1.14	1.14	0.57
Skardu	-2.24	-4.50	0.00	65.29	1.80	5.71	4.50	0.00	0.00
Tandojam	15.40	15.00	12.83	66.50	0.00	0.00	1.00	0.60	1.10
Usta. M	***	***	***	***	***	***	***	***	***
Zhob	6.64	5.00	57.50	41.50	0.00	1.71	0.86	2.29	3.29

*** 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)