

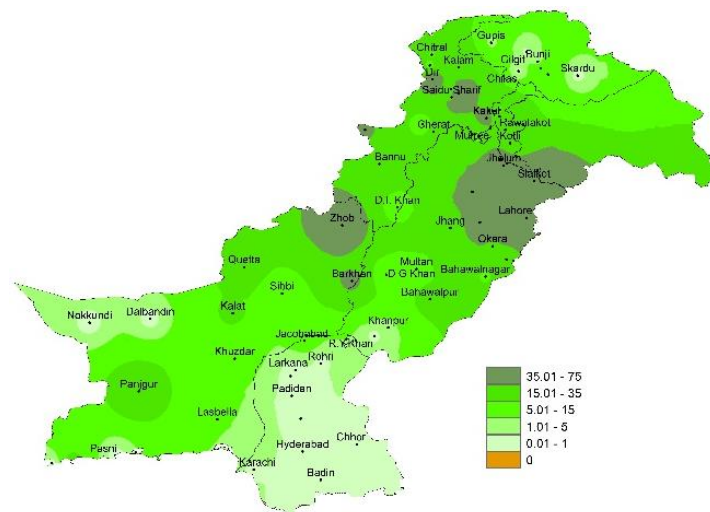
Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the Previous
Week (20th March– 26th March, 2023)**



Highlights of Past Weather (27th March– 02nd April, 2023)

Normal to below normal mean temperatures were recorded in most parts of the country except Gilgit Baltistan Central Balochistan and upper parts of Sindh.

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

1. Light to moderate rainfall with isolated heavy rain reported from all over country except Sindh Province where light rainfall was reported.

Contents

Highlights of past weather	1-2
Past weather for Agri Plains	3-4
Crop progress	4
Agrometeorological parameters	
• Temperature	5
• R.H and GDD	6
• Wind speed	7
• Cloudiness	8
Advisory for Farmers	9
Weather Outlook	9
National data for selected stations	10
AgMIP project findings	11

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Editor: Shafiq Ur Rehman (Meteorologist)

Past Weather of Provinces (27th March– 02nd April, 2023)

Punjab

Light to moderate rainfall reported from Punjab province. Weekly maximum and minimum temperatures recorded as 26.0°C & 15.1°C respectively. For the recent week on average 111.6 growing degree days were accumulated. Average relative humidity recorded as 69% and wind speed in the morning/evening recorded as 1.1/3.0 Knots. Lowest minimum temperature was recorded as 3.0°C at Murree. Highest precipitation was recorded as 86.6mm from Gujranwala.

Baluchistan

Light to moderate rainfall reported from Baluchistan province. Weekly maximum and minimum temperatures recorded as 26.7°C & 13.8°C respectively. For the recent week on average 107.1 growing degree days were accumulated. Average relative humidity recorded as 59% and wind speed in the morning/evening recorded as 1.4/6.4Knots. Lowest minimum temperature was recorded as 4.0°C at Kalat. Highest precipitation was recorded as 70.0mm from Zhob.

Khyber Pakhtunkhwa

Light to moderate rain reported from Khyber Pakhtunkhwa. Weekly maximum and minimum temperatures recorded as 20.8°C & 9.5°C respectively. For the recent week on average 71.1 growing degree days were accumulated. Average relative humidity recorded as 71% and wind speed in the morning/evening recorded as 0.9/2.1 Knots. During the previous week the highest precipitation was recorded as 72.2mm at Malam Jabba while the lowest minimum temperature was recorded as -1.5°C at Kalam.

Sindh

Light rainfall reported from Sindh. Weekly maximum and minimum temperatures recorded as 33.9°C & 19.5°C respectively. For the recent

week, on average 151.9 growing degree days were accumulated. Average relative humidity recorded as 51% and wind speed in the morning/evening recorded as 3.9/5.7 Knots. During the previous week the lowest minimum temperature was recorded as 15.5°C at Moin jo Daro. Highest precipitation was recorded as 9.01mm from Jacobabad.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light rain reported from most parts of GB while light to moderate rain was observed in Azad Jammu and Kashmir. Weekly maximum and minimum temperatures recorded as 21.4°C & 9.3°C respectively. For the recent week on average 72.1 growing degree days were accumulated. Average relative humidity recorded as 56% and wind speed in the morning/evening recorded as 0.6/3.8 Knots. During the previous week the highest precipitation was recorded as 24.0mm at Garhi Dopatta while the lowest minimum temperature was recorded as 1.7°C at Astore.

Past Weather for Major Agricultural Plains (27th March– 02nd April, 2023)

Rawalpindi (Potohar region)

Rainfall reported as 8.9mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 4.4/5.1 Oktas while, average relative humidity observed as 70%. Mean night time temperature recorded as 10.8°C and for the recent week 94.0 growing degree days were accumulated. Wind speed recorded in the morning/evening as 0.8/1.7Knots. Lowest minimum temperature was recorded as 9.0°C.

Faisalabad (Central Punjab)

Rainfall reported as 25.0mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 3.3/5.0 Oktas while, average relative humidity observed as 70%. Mean night time temperature recorded as 16.2°C & for the recent week 117.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/1.4Knots. Lowest minimum temperature was recorded as 13.5°C.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.3/1.7Oktas, average relative humidity observed as 55%. Mean night time temperature recorded as 18.1°C & for the recent week 150.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/4.2 Knots. Lowest minimum temperature was recorded as 16.0°C.

Usta Muhammad (Eastern Baluchistan)

Rainfall reported as 2.2mm from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded as 2.1/2.7 Oktas, average relative humidity observed as 57%. Mean night time temperature recorded as 16.1°C & for the recent week 133.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/1.7Knots. Lowest minimum temperature was recorded as 13.0°C.

Quetta (Northern Baluchistan)

Rainfall reported as 28.0mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 4.1/6.0Oktas while, average relative humidity observed as 57%. Mean night time temperature recorded as 6.4°C & for the recent week 55.0 growing degree days

accumulated. Wind speed recorded in the morning/evening as 2.2/3.6Knots. Lowest minimum temperature was recorded as 4.0°C.

Past Weather for Sub-Regional Agricultural Plains (27th March– 02nd April, 2023)

Multan

Rainfall reported as 9.03mm Multan during the week; however, cloudiness in the morning/evening recorded as 5.1/3.1 Oktas. Average relative humidity observed as 64%. Mean night time temperature recorded as 16.7°C & for the recent week 120.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.0/5.1Knots

Lahore

Rainfall reported as 65.8mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.5/5.0 Oktas, average relative humidity observed as 67%. Mean night time temperature recorded as 67°C & for the recent week 116.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.6Knots.

Zhob

Rainfall reported as 70.0mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 3.0/4.7Oktas while, average relative humidity observed as 67%. Mean night time temperature recorded as 8.5°C & for the recent week 60.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.1/6.1 Knots.

Murree

Rainfall reported as 35.5mm from Murree during the week; however, cloudiness in the morning/evening recorded as 4.4/7.0 Oktas while, average relative humidity observed as 74%. Mean night time temperature recorded as 4.3°C & for the recent week 29.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/1.4Knots.

D.I. Khan

Rainfall reported as 7.0mm from DI Khan during the week; however, cloudiness in the morning/evening recorded as 4.6/6.7 Oktas, average relative humidity observed as 71%. Mean

night time temperature recorded as 16.1°C & for the recent week 114.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.4/1.4Knots.

Peshawar

Rainfall reported as 5.11mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 5.7/5.7Oktas while, average relative humidity observed as 72%. Mean night time temperature recorded as 14.9°C & for the recent week 104.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/2.3Knots.

Kalam

Rainfall reported as 20.4mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 4.9/5.4Oktas while, average relative humidity observed as 37%. Mean night time temperature recorded as 1.4°C & for the recent week 23.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/4.7 Knots.

Gilgit

Rainfall reported as 0.1 mm (trace) from Gilgit during the week, cloudiness in the morning/evening recorded as 5.9/6.4Oktas while, average relative humidity observed as 40%. Mean night time temperature recorded as 10.4°C & for the recent week 83.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.7/3.4 Knots.

Skardu

Rainfall reported as 0.1 mm (trace) from Skardu during the week; however, cloudiness in the morning/evening recorded as 4.7/6.7Oktas while, average relative humidity observed as 37%. Mean night time temperature recorded as 5.8°C & for the recent week 51.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/4.7 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)

Presently Wheat Crop is grown in the fields of RAMC Faisalabad.

Phenological Stage; Milk Maturity completed, Very Good Condition, Irrigated.

Lower Sindh (Tandojam)

Presently Wheat Crop is grown in the fields of RAMC Tandojam.

Variety: TJ 83, Stage: Harvested on 11-03-2023.

Northern Baluchistan (Quetta)

Presently Wheat Crop is grown in the fields of RAMC Sariab.

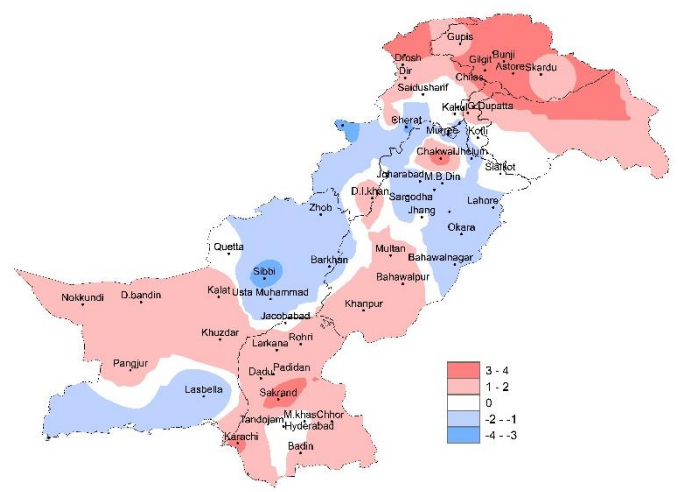
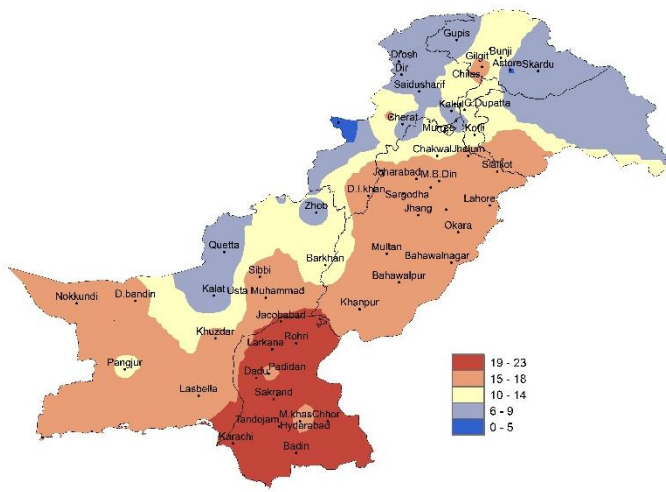
Variety: Zardana. Irrigated; Phenological Stage, shooting, Good.

Eastern Baluchistan (Usta Muhammad)

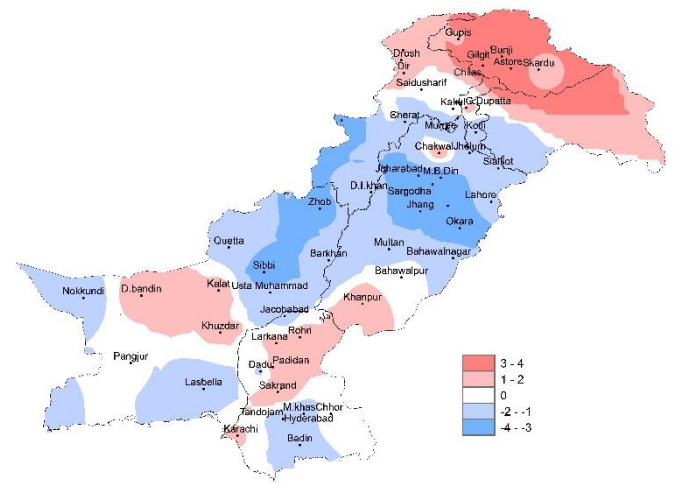
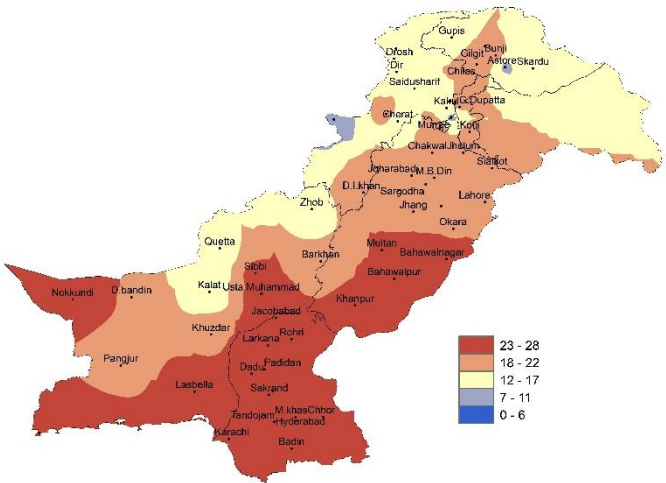
Presently Wheat Crop is grown in the fields of RAMC Usta Muhammad.

Phonological stage: Milk Maturity, Good Condition. Irrigated.

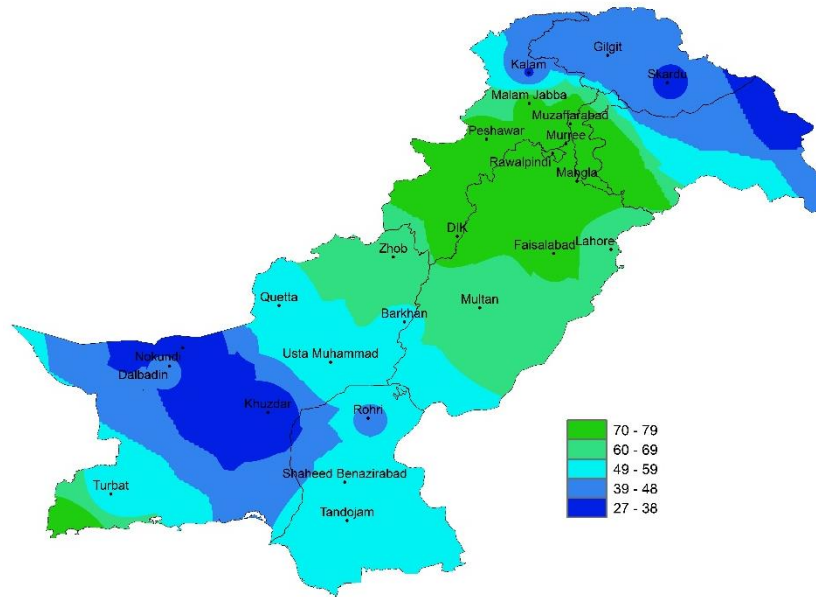
Actual & Departure of Minimum temperature (°C) for the Previous week (27th March– 02nd April, 2023)



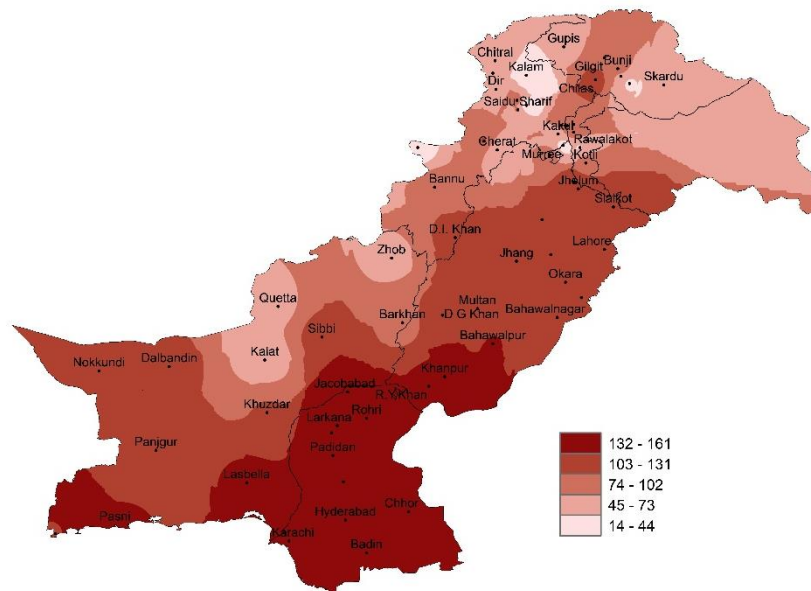
Actual & Departure of Mean temperature (°C) for the Previous week (27th March– 02nd April, 2023)



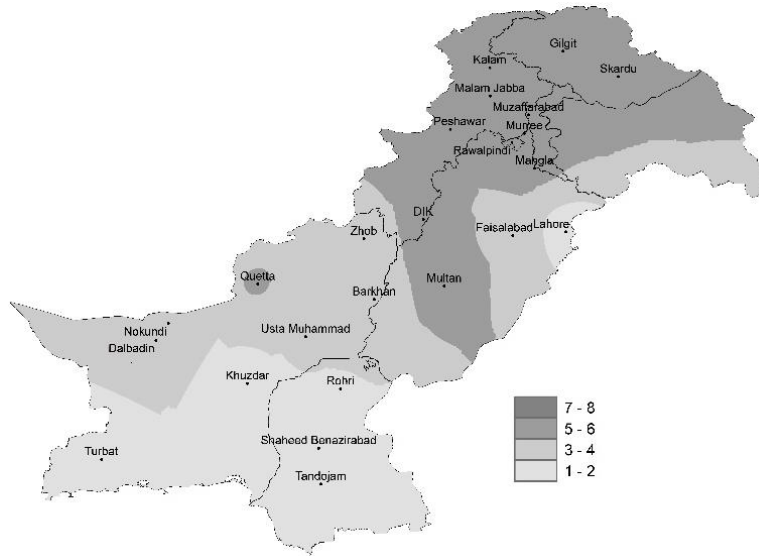
**Mean Relative Humidity (%) during the
Previous week (27th March– 02nd April, 2023)**



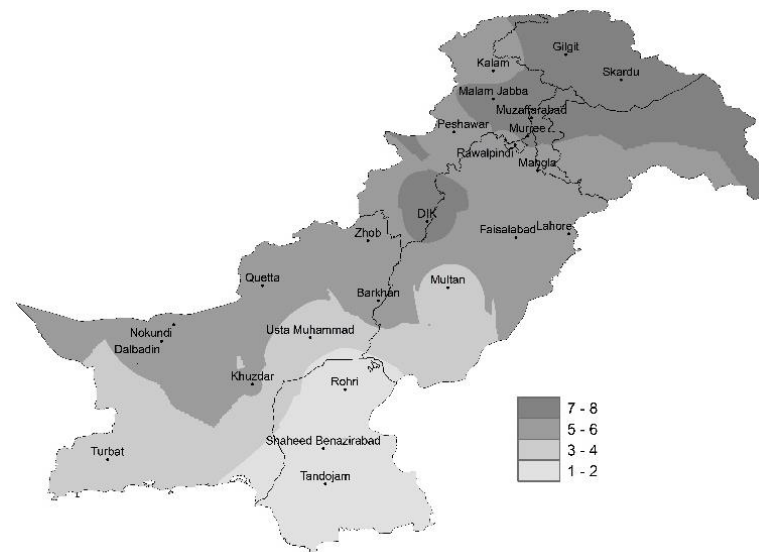
**Total Growing Degree Days accumulated during the
Previous week (27th March– 02nd April, 2023)**



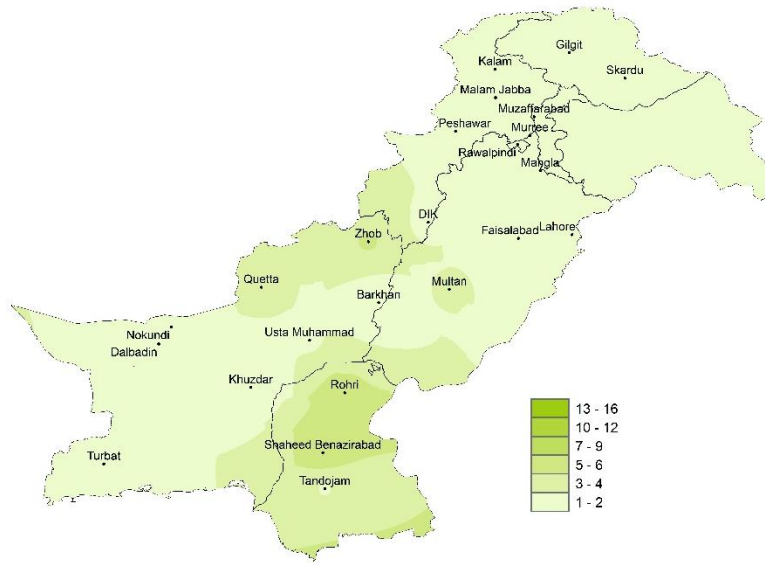
Mean Cloudiness (Oktas) at 0800PST during the
Previous week (27th March– 02nd April, 2023)



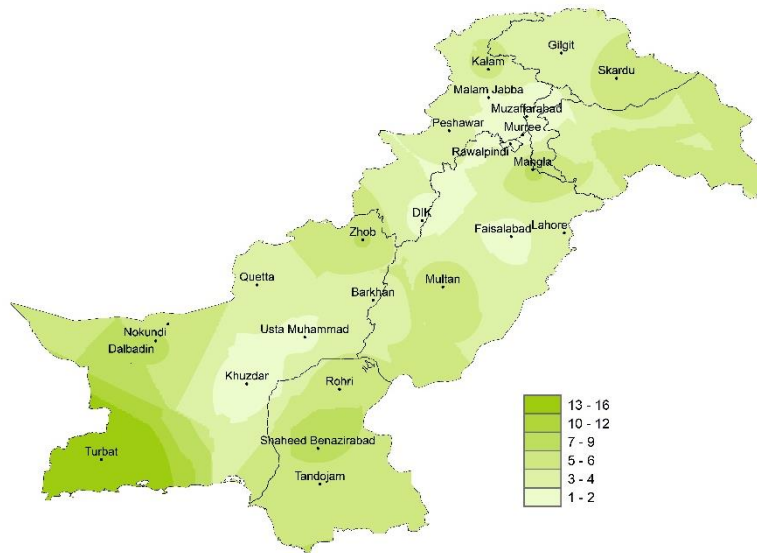
Mean Cloudiness (Oktas) at 1700PST during the
Previous week (27th March– 02nd April, 2023)



**Mean Wind Speed (Knots) at 0800PST during the
Previous week (27th March– 02nd April, 2023)**

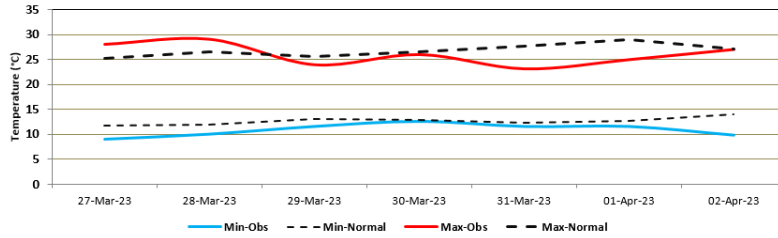


**Mean Wind Speed (Knots) at 1700PST during the
Previous week (27th March– 02nd April, 2023)**

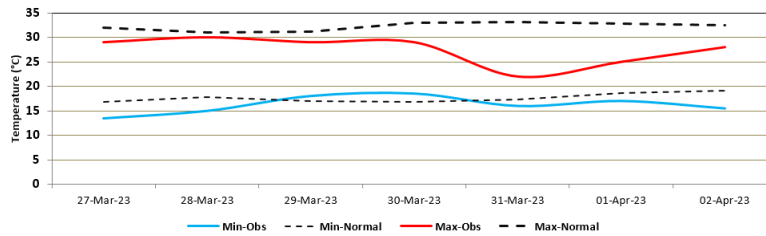


Comparison of temperatures (Minimum & Maximum with normal) during the previous week (27th March– 02nd April, 2023)

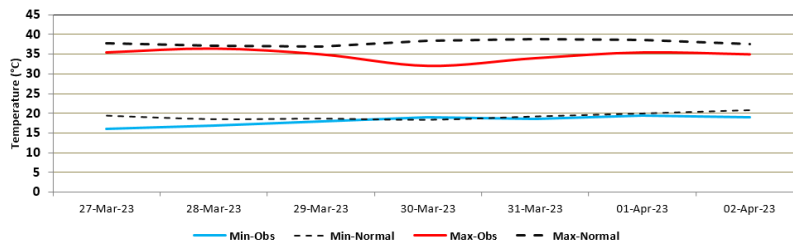
Rawalpindi (Min & Max Temperatures)



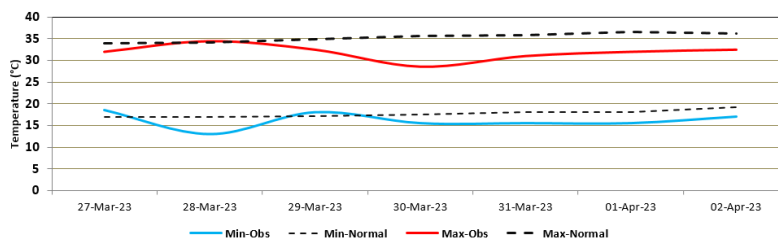
Faisalabad (Min & Max Temperatures)



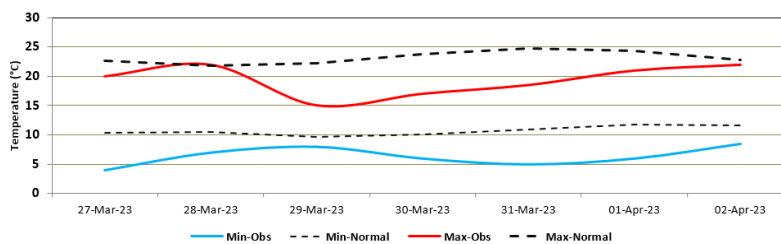
Tandojam (Min & Max Temperatures)



Usta Muhammad (Min & Max Temperatures)



Quetta (Min & Max Temperatures)



Weekly Weather Advisory for Farmers**(03rd April– 09th April, 2023)**

A westerly wave is affecting upper parts of the country and likely persist till Wednesday (morning).

MONDAY**03-04-2023**

Cloudy weather is expected in Upper/Central parts of the country. Rain-wind/thunderstorm (with hailstorm) is expected in Khyber Pakhtunkhwa, Upper/Central Punjab, Kashmir and Gilgit-Baltistan. Dry weather is likely in other parts of the country.

TUESDAY**04-04-2023**

Dry weather is expected in most plain areas of the country. However, rain-wind/thunderstorm (with hailstorm) is likely in upper Khyber Pakhtunkhwa, Potohar region, Kashmir and Gilgit-Baltistan.

WEDNESDAY**05-04-2023**

Mainly dry weather is expected in most plain areas of the country. However, rain/wind-thunderstorm is expected in upper Khyber Pakhtunkhwa, upper Punjab, Gilgit-Baltistan and Kashmir.

THURSDAY**06-04-2023**

Mainly dry weather is expected in most plain areas of the country. However, rain/wind-thunderstorm is expected in upper Khyber Pakhtunkhwa, Gilgit Baltistan, Kashmir and adjoining hilly areas.

FRIDAY**07-04-2023**

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

SATURDAY**08-04-2023**

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

SUNDAY**09-04-2023**

Mainly dry weather is expected in most parts of the country. However, partly cloudy with light rain is expected in upper Khyber Pakhtunkhwa.

ADVISORY FOR FARMERS

1. The farmers may plan field activities according to the PMD weather forecast.

National Weather Data of Selected Cities from (27th March– 02nd April, 2023)

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	Highest							
D.I. Khan	16.07	14.50	114.00	71.43	7.02	4.57	6.71	1.43	1.43
Faisalabad	16.20	13.50	117.80	70.00	50.00	3.30	5.00	0.60	1.40
Gawadar	19.36	18.00	136.75	79.43	17.80	0.86	3.00	0.00	12.57
Gilgit	10.36	8.00	83.25	40.07	0.12	5.86	6.43	1.71	3.43
Kalam	1.36	-1.50	23.00	36.64	20.40	4.86	5.43	0.00	4.71
Khuzdar	14.64	14.00	105.25	30.64	12.00	0.71	4.00	0.00	0.57
Lahore	16.44	14.50	116.45	66.96	65.81	0.50	5.00	0.00	2.57
Malam Jabba	3.11	2.50	12.90	74.43	72.00	5.14	6.71	1.14	1.71
Mangla	14.36	11.70	106.55	71.50	66.81	4.29	4.00	0.86	6.57
Multan (PBO)	16.74	14.70	119.95	64.43	9.03	5.14	3.14	2.00	5.14
Murree	4.31	3.00	29.20	74.36	35.50	4.43	7.00	1.43	1.43
Muzaffarabad	11.40	9.90	84.55	73.79	21.60	5.43	6.86	0.00	0.57
Nawabshah	19.21	18.00	156.50	49.57	0.00	0.71	1.29	5.43	6.86
Peshawar	14.86	11.70	104.25	72.29	5.11	5.71	5.71	0.86	2.29
Quetta	6.40	4.00	55.00	57.00	28.00	4.10	6.00	2.20	3.60
Rawalpindi	10.80	9.00	94.00	69.50	8.90	4.40	5.10	0.80	1.70
Rohri	19.86	19.00	152.25	47.57	0.00	1.57	0.86	4.57	6.00
Skardu	5.81	3.40	51.90	36.64	0.01	4.71	6.71	0.00	4.71
Tandojam	18.10	16.00	150.30	54.50	0.00	0.30	1.70	1.70	4.20
Usta.M	16.10	13.00	133.00	57.00	2.20	2.14	2.71	1.71	1.71
Zhob	8.50	6.00	60.25	67.36	70.00	3.00	4.71	4.14	6.14

*** 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)