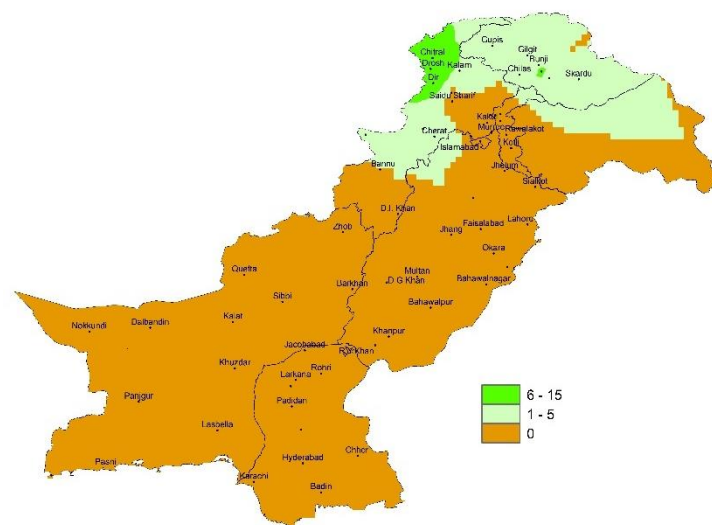


Weekly Weather and Crop Bulletin for Pakistan

**NATIONAL AGROMET CENTRE
PAKISTAN METEOROLOGICAL
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Rainfall Distribution (mm) during the Previous Week (28th September - 4th October, 2020)

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Highlights of Past Weather (28th September - 4th October, 2020)

Above normal day time temperatures were observed in Punjab, Khyber Pakhtunkhwa, below normal in Sindh, Baluchistan Kashmir and Gilgit-Baltistan during the last week.

Rainfall reported as follows during the last week:

1. Light to moderate rainfall observed in upper Khyber Pakhtunkhwa and Gilgit-Baltistan.
2. Dry weather prevailed over Baluchistan, lower Khyber Pakhtunkhwa, Sindh, Punjab and Kashmir.

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

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

Editor: Ruqiya Mehmood (Assistant Meteorologist)

Past Weather of Provinces (28th September - 4th October, 2020)**Punjab**

Dry weather reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 36.0°C & 21.0°C respectively. For the recent week on average 164.4 growing degree days were accumulated. Average relative humidity recorded as 50% and wind speed in the morning/evening recorded as 1.3/2.8 Knots. During the previous week the highest maximum temperature was recorded as 41.5°C at Noorpur Thal.

Baluchistan

Dry weather reported from Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 33.3°C & 18.1°C respectively. For the recent week on average 142.3 growing degree days were accumulated. Average relative humidity recorded as 41% and wind speed in the morning/evening recorded as 0.8/6.0 Knots. During the previous week the highest maximum temperature was recorded as 42.0°C at Turbat.

Khyber Pakhtunkhwa

Light to moderate rainfall reported from upper parts of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 30.2°C & 14.2°C respectively. For the recent week on average 119.3 growing degree days were accumulated. Average relative humidity recorded as 58% and wind speed in the morning/evening recorded as 1.7/1.3 Knots. During the previous week the highest precipitation was recorded as 12.6 mm at Drosh while the highest maximum temperature was recorded as 40.0°C at Dir.

Sindh

Dry weather reported from most parts of Sindh during the week. Weekly maximum and minimum temperatures recorded as 36.7°C & 24.9°C respectively. For the recent week, on average 173.1 growing degree days were accumulated. Average

relative humidity recorded as 60% and wind speed in the morning/evening recorded as 2.0/4.0 Knots. During the previous week the highest maximum temperature was recorded as 40.5°C at Shaheed Benazirabad.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light rainfall reported from one station in Gilgit-Baltistan during the week. Weekly maximum and minimum temperatures recorded as 27.2°C & 11.2°C respectively. For the recent week on average 93.8 growing degree days were accumulated. Average relative humidity recorded as 53% and wind speed in the morning/evening recorded as 0.1/1.6 Knots. During the previous week the highest precipitation was recorded as 0.9 mm at Gilgit while the highest maximum temperature was recorded as 36.0°C at Muzaffarabad.

Past Weather for Major Agricultural Plains**(28th September - 4th October, 2020)****Rawalpindi (Potohar region)**

Dry weather reported from Rawalpindi during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 57%. Mean day time temperature recorded as 34.0°C & for the recent week 145.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/0.3 Knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 51%. Mean day time temperature recorded as 37.3°C & for the recent week 171.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.8/1.0 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 66%. Mean day time temperature recorded as 37.1°C & for the recent week 174.4 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.2/2.8 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 67%. Mean day time temperature recorded as 35.7°C & for the recent week 176.8 growing degree days accumulated. Calm wind recorded in the morning/evening.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.7/1.4 Oktas while, average relative humidity observed as 26%. Mean day time temperature recorded as 27.6°C & for the recent week 107.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.2/2.8 Knots.

Past Weather for Sub-Regional Agricultural Plains (28th September - 4th October, 2020)**Multan**

Dry weather reported from Multan during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 49%. Mean day time temperature recorded as 36.3°C & for the recent week 165.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.9/5.1 Knots.

Lahore

Dry weather reported from Lahore during the week; however, clear sky observed in the morning/evening while, average relative humidity observed as 50%. Mean day time temperature recorded as 35.8°C & for the recent week 176.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/2.9 Knots.

Zhob

Dry reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/0.4 Oktas while, average relative humidity observed as 24%. Mean day time temperature recorded as 30.3°C & for the recent week 130.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.3/5.4 Knots.

Murree

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 0.3/0.3 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 23.8°C & for the recent week 97.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 1.1/0.3 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.0/0.7 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 37.7°C & for the recent week 172.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/0.9 Knots.

Peshawar

Rainfall reported as 0.8 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.0/3.3 Oktas while, average relative humidity observed as 59%. Mean day time temperature recorded as 34.9°C & for the recent week 154.0 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/1.1 Knots.

Kalam

Rainfall reported as 4.5 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.0/4.0 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 20.9°C & for the recent week 53.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.1 Knots.

Gilgit

Rainfall reported as 0.9 mm from Gilgit during the week. However, cloudiness in the morning/evening recorded as 2.6/5.9 Oktas while, average relative humidity observed as 60%. Mean day time temperature recorded as 26.9 °C & for the recent week 90.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/4.0 Knots.

Skardu

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 2.1/2.3 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 23.7°C & for the recent week 56.8 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.1 Knots.

**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 cotton crop is sown in the fields of RAMC Faisalabad.

Cotton: V. Good, Maturity Stage.

Lower Sindh (Tandojam)

Cotton crop is sown in the fields of RAMC Tandojam.

Cotton Variety (Sindh-I): Good, Ball Opening Stage.

Northern Baluchistan (Quetta)

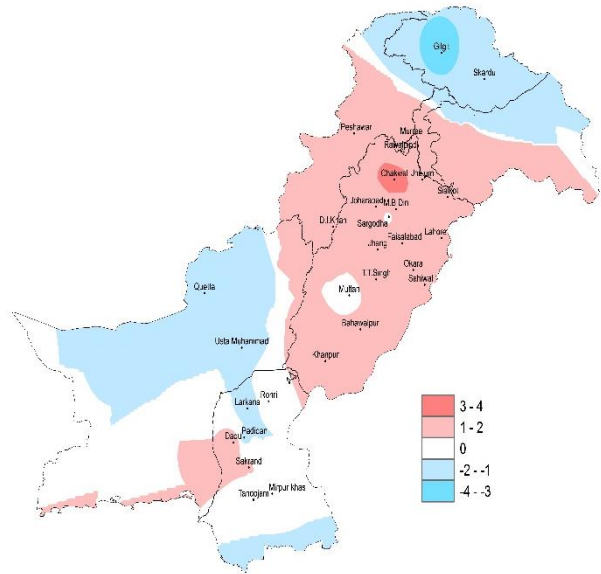
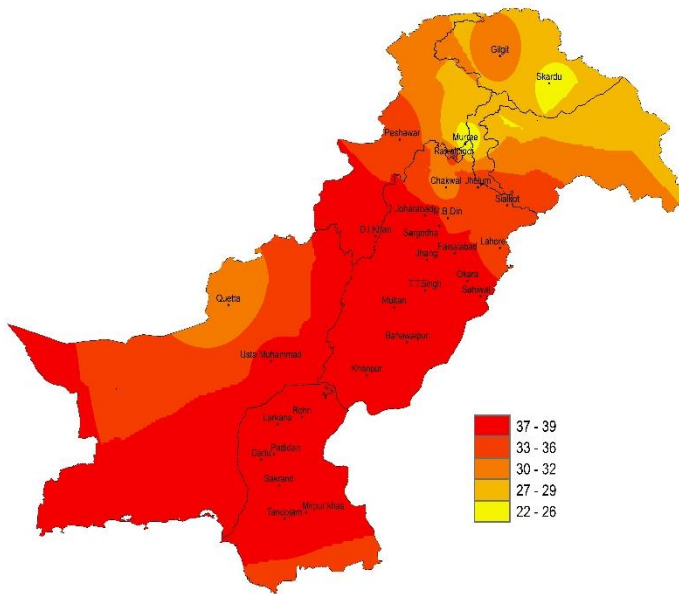
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

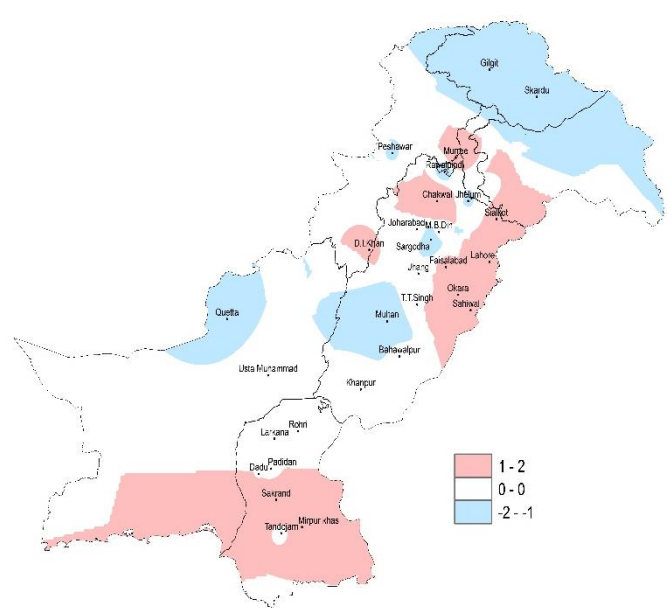
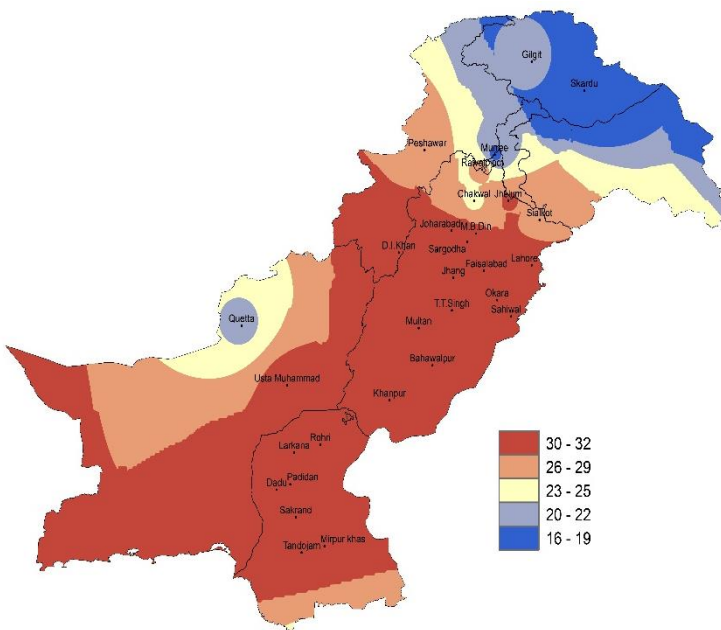
Rice crop is sown in the fields of RAMC Usta Muhammad.

Rice: Good, Shooting Stage.

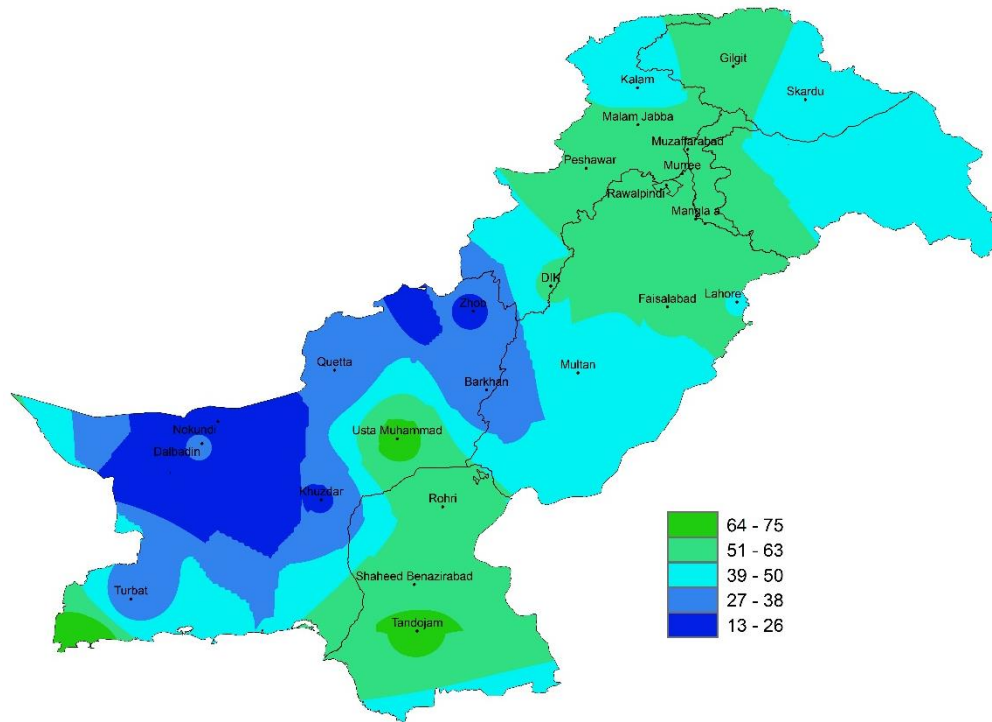
Normal & Departure of Maximum temperature (°C) for the previous week (28th September - 4th October, 2020)



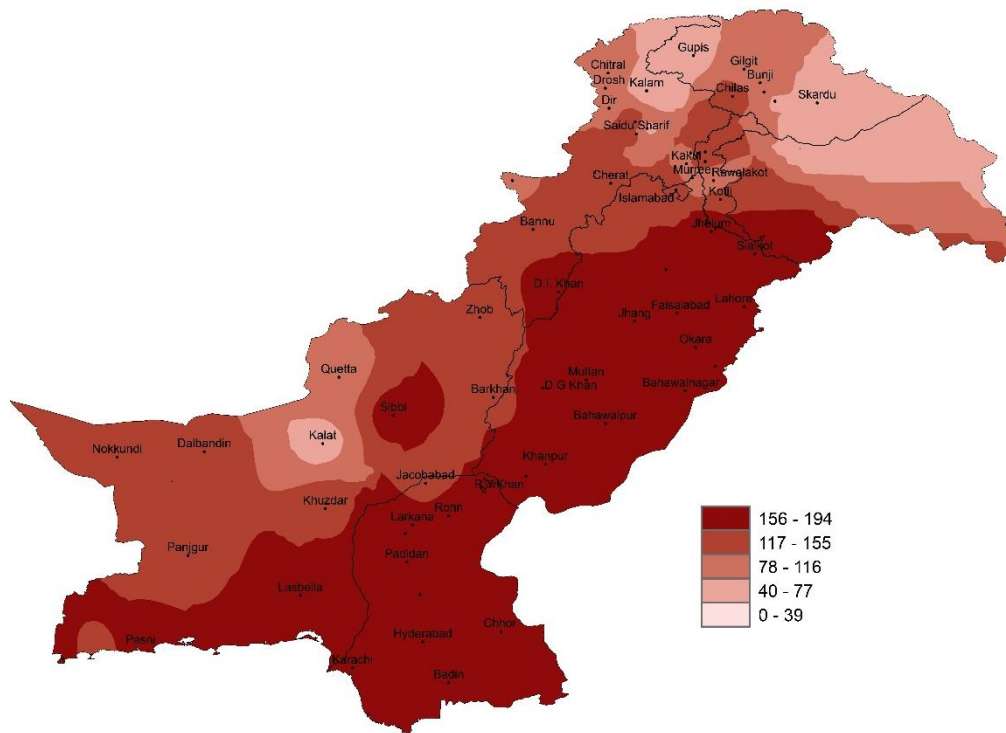
Normal & Departure of Mean temperature (°C) for the previous week (28th September - 4th October, 2020)



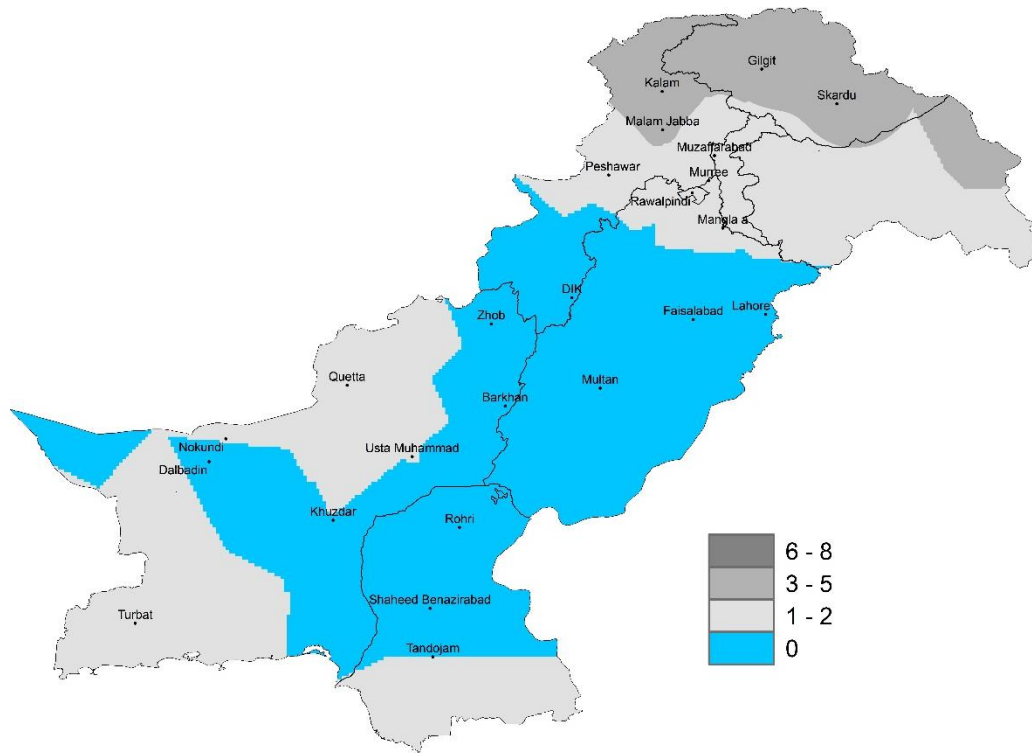
Mean Relative Humidity (%) during the previous week (28th September - 4th October, 2020)



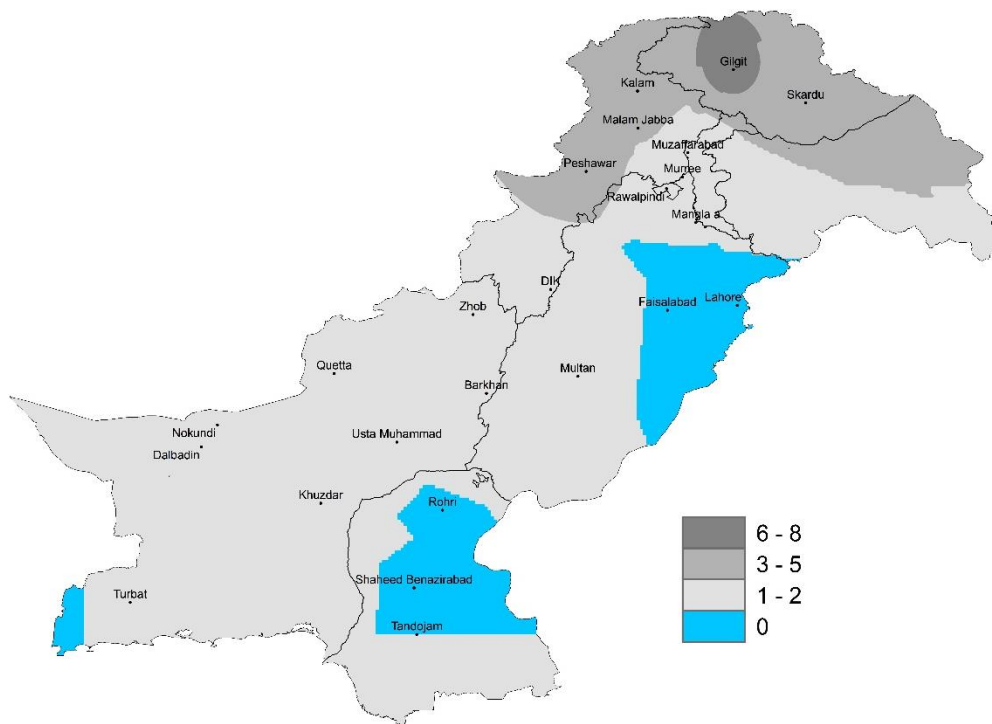
Total Growing Degree Days accumulated during the previous week (28th September - 4th October, 2020)



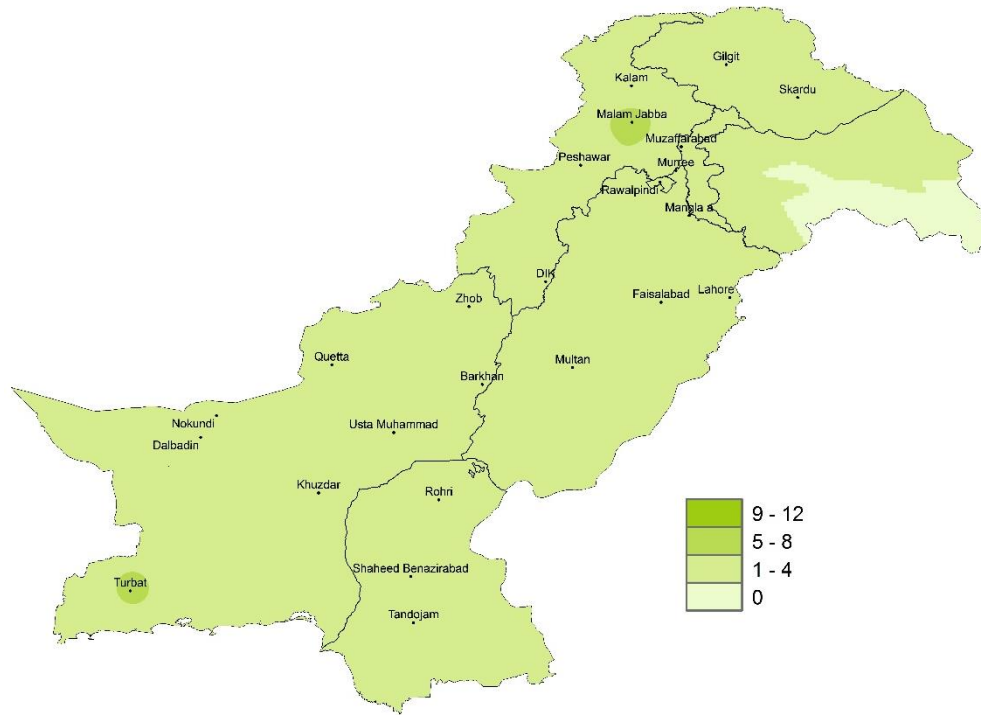
Mean Cloudiness (Oktas) at 0800PST during the previous week (28th September - 4th October, 2020)



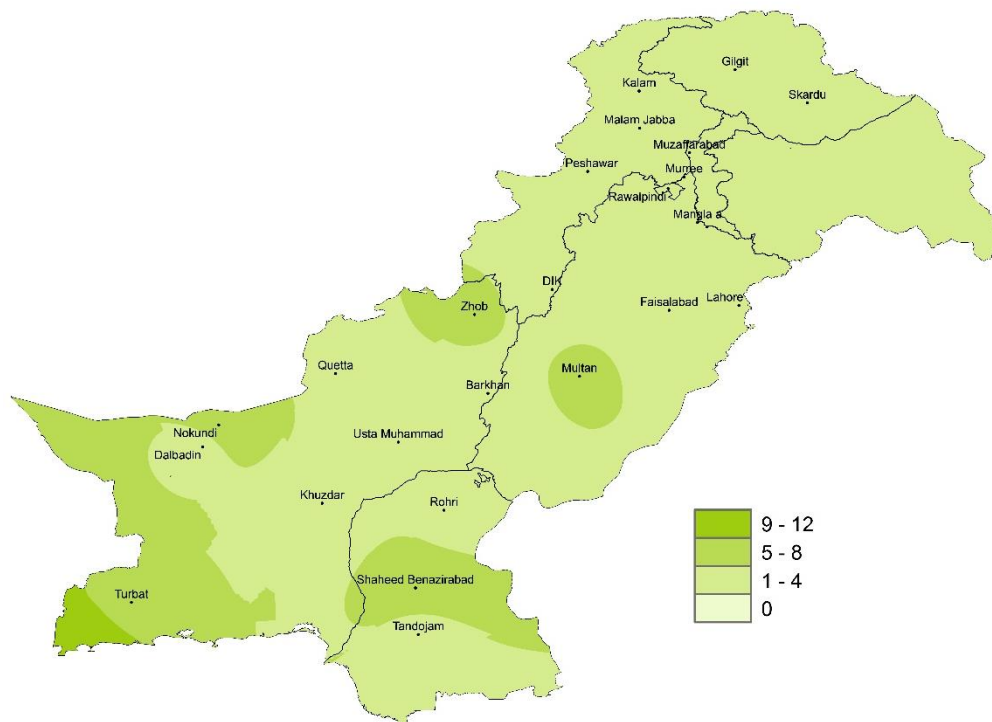
Mean Cloudiness (Oktas) at 1700PST during the previous week (28th September - 4th October, 2020)



Mean Wind Speed (Knots) at 0800PST during the previous week (28th September - 4th October, 2020)



Mean Wind Speed (Knots) at 1700PST during the previous week (28th September - 4th October, 2020)



Weekly Weather Advisory for Farmers**(5th – 11th October, 2020)**

Continental air is prevailing over most parts of the country.

MONDAY**05-10-2020**

Mainly dry weather is likely to prevail over most parts of the country, while hot in plain areas.

TUESDAY**06-10-2020**

Mainly dry weather is likely to prevail over most parts of the country, while hot in plain areas.

WEDNESDAY**07-10-2020**

Mainly dry weather is likely to prevail over most parts of the country, while hot in plain areas.

THURSDAY**08-10-2020**

Mainly dry weather is likely to prevail over most parts of the country, while hot in plain areas. However, rain-thunderstorm is expected at isolated places in Chitral and Dir.

FRIDAY**09-10-2020**

Mainly dry weather is likely to prevail over most parts of the country, while hot in plain areas. However, rain-thunderstorm is expected at isolated places in Chitral and Dir.

SATURDAY**10-10-2020**

Mainly dry weather is likely to prevail over most parts of the country, while hot in plain areas. However, rain-thunderstorm is expected at isolated places in Chitral and Dir.

SUNDAY**11-10-2020**

Mainly dry weather is likely to prevail over most parts of the country, while hot in plain areas. However, rain-thunderstorm is expected at isolated places in Chitral and Dir.

ADVISORY FOR FARMERS

During the last week, light to moderate rainfall observed in upper Khyber Pakhtunkhwa and Gilgit-Baltistan. Dry weather prevailed over Baluchistan, lower Khyber Pakhtunkhwa, Sindh, Punjab and Kashmir. Keeping in view the expected weather forecast and crop conditions farmers may continue their farm activities.

National Weather Data of Selected Cities from (28th September – 4th October, 2020)

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	Maximum							
Barkhan	32.5	33.5	144.5	27	0.0	0.0	0.1	1.7	1.1
Dalbandin	34.1	37.0	137.3	28	0.0	0.0	0.9	1.7	2.0
D.I. Khan	37.7	40.0	172.5	52	0.0	0.0	0.7	0.9	0.9
Faisalabad	37.3	38.0	171.3	51	0.0	0.0	0.0	0.8	1.0
Gawadar	35.9	40.0	147.0	75	0.0	0.9	0.0	0.0	11.1
Gilgit	26.9	30.0	90.8	60	0.9	2.6	5.9	0.3	4.0
Kalam	20.9	23.0	53.8	39	4.5	3.0	4.0	0.0	1.1
Khuzdar	32.1	33.0	142.3	24	0.0	0.0	0.3	0.0	1.4
Lahore	35.8	36.7	176.9	50	0.0	0.0	0.0	0.0	2.9
Malam Jabba	18.6	20.5	54.8	59	0.0	2.1	2.3	5.7	2.6
Mangla	36.1	36.7	157.9	59	0.0	0.0	0.0	0.0	1.1
Multan (PBO)	36.3	36.7	165.0	49	0.0	0.0	0.0	2.9	5.1
Murree	23.8	25.0	97.3	52	0.0	0.3	0.3	1.1	0.3
Muzaffarabad	34.2	36.0	137.1	54	0.0	0.0	0.0	0.0	0.0
Nokkundi	39.3	40.5	189.0	59	0.0	0.0	0.0	3.1	6.3
Nawabshah	34.6	38.0	154.0	13	0.0	0.0	0.0	3.4	7.1
Peshawar	34.9	35.7	154.0	59	0.8	0.0	3.3	0.3	1.1
Quetta	27.6	30.5	107.0	26	0.0	0.7	1.4	2.8	3.2
Rawalpindi	34.0	35.0	145.8	57	0.0	0.0	0.0	0.6	0.3
Rohri	37.6	38.5	185.3	55	0.0	0.0	0.0	0.6	2.9
Skardu	23.7	25.4	56.8	39	0.0	2.1	2.3	0.0	1.1
Tandojam	37.1	38.0	174.4	66	0.0	0.0	0.0	2.2	2.8
Turbat	40.2	42.0	195.0	31	0.0	0.3	0.0	4.3	6.7
Usta. M	35.7	37.0	176.8	67	0.0	0.0	0.0	0.0	0.0
Zhob	30.3	32.0	130.8	24	0.0	0.0	0.4	2.3	5.4

*** 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)