

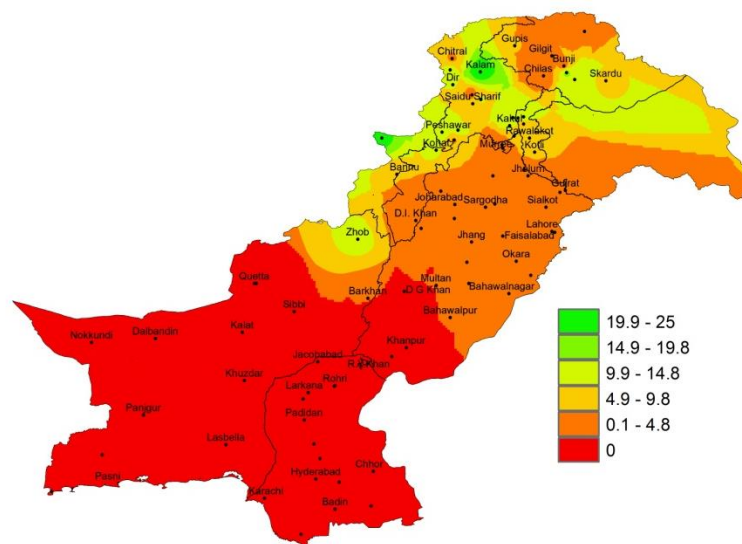
Weekly Weather and Crop Bulletin for Pakistan

**NATIONAL AGROMET CENTRE
PAKISTAN METEOROLOGICAL
DEPARTMENT SECTOR H-8/2,
ISLAMABAD.**

Phone: +92-51-9250299

Email: dirnamc@yahoo.com

**Rainfall Distribution (mm) during the
Previous Week (from 27th March to 2nd April, 2017)**



Contents

Highlights of past weather (General)	1-2
Past weather for Agri Plains	3-4
Crop progress	4
Min Temperature maps	5
R.H and GDD	6
Wind speed maps	7
Cloudiness maps	8
Farmers advisory	9
Weather Outlook	10
National data for selected stations	11-13
AgMIP findings	14

Highlights of Past Weather (from 27th March to 2nd April, 2017)

Slightly above normal day temperatures reported from most parts of the country.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall reported from many places of Khyber Pakhtunkhwa (KP), Gilgit-Baltistan (GB) and Kashmir.
- Dry weather reported from Sindh.
- Light rainfall reported from a single station (Zhob=12.0 mm) of Balochistan.
- Light rainfall reported from many places of Punjab.

Patron-in-Chief: Dr. Ghulam Rasul (Director General)

Editor-in-Chief: Dr. Khalid M. Malik (Director)

Editor: Dr. Dildar Kazmi (Meteorologist)

Past Weather of Provinces (from 27th March to 2nd April, 2017)**Punjab**

Light rainfall reported from many places of Punjab during the week. Weekly maximum and minimum temperatures recorded as 36.1°C & 19.8°C respectively. For the recent week on average 161.0 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 48% and wind speed in the morning/evening recorded as 1.3/2.9 Knots. During the previous week the highest amount of rainfall was recorded as 8.4 mm at Murree & the highest maximum temperature was recorded as 43.0°C at Rahim Yar Khan.

Sindh

Dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 40.5°C & 21.8°C respectively. For the recent week, on average 182.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 50% and wind speed in the morning/evening recorded as 2.6/5.8 Knots. During the previous week the highest maximum temperature was recorded as 44.0°C at Larkana.

Khyber Pakhtunkhwa

Light to moderate rainfall reported from many places of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 26.8°C & 12.5°C respectively. For the recent week on average 102.5 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 56% and wind speed in the morning/evening recorded as 1.1/2.9 Knots. During the previous week the highest amount of rainfall was recorded as 25.0 mm at Kalam & the highest maximum temperature was recorded as 37.2°C at D.I.Khan.

Balochistan

Light rainfall reported from a single station (Zhob=12.0 mm) of Balochistan during the week. Weekly maximum and minimum temperatures recorded as 33.9°C & 17.5°C respectively. For the recent week on average 144.4 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 41% and wind speed in the morning/evening recorded as 1.3/5.5 Knots. During the previous week the highest amount of rainfall was recorded as 12.0 mm at Zhob & the highest maximum temperature was recorded as 42.5°C at Turbat.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from many places of Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 23.1°C & 10.2°C respectively. For the recent week on average 81.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 52% and wind speed in the morning/evening recorded as 1.4/3.7 Knots. During the previous week the highest amount of rainfall was recorded as 13.8 mm at Astore & the highest maximum temperature was recorded as 35.0°C at Kotli.

Past Weather for Major Agricultural Plains
(from 27th March to 2nd April, 2017)

Rawalpindi (Potohar region)

Rainfall reported as 1.4 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.4/3.9 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded as 33.2°C & for the recent week 142.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/2.3 Knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.1/3.1 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 36.0°C & for the recent week 162.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/0.6 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while, average relative humidity observed as 53%. Mean day time temperature recorded as 41.1°C & for the recent week 175.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/2.9 Knots.

Usta Muhammad (Eastern Balochistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.0/0.0 Oktas while, average relative humidity observed as 40%. Mean day time temperature recorded as 37.2°C & for the recent week 154.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.5/1.7 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 2.6/3.0 Oktas while, average relative humidity observed as 33%. Mean day time temperature recorded as 26.0°C at the end of last week. Wind speed recorded in the morning/evening as 1.6/2.8 Knots.

Past Weather for Sub-Regional Agricultural Plains (from 27th March to 2nd April, 2017)

Multan

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 2.1/2.1 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 37.3°C & for the recent week 174.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/6.0 Knots.

Lahore

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 3.0/2.7 Oktas while, average relative humidity observed as 41%. Mean day time temperature recorded as 36.3°C & for the recent week 171.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/3.4 Knots.

Zhob

Rainfall reported as 12.0 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 3.1/4.1 Oktas while, average relative humidity observed as 39%. Mean day time temperature recorded as 29.0°C & for the recent week 96.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 5.0/5.0 Knots.

Murree

Rainfall reported as 8.4 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 2.9/4.0 Oktas while, average relative humidity observed as 51%. Mean day time temperature recorded as 21.8°C by the end of last week. Wind speed recorded in the morning/evening as 2.6/1.1 Knots.

D.I. Khan

Rainfall reported as 1.01 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.6/2.9 Oktas while, average relative humidity observed as 59%. Mean day time temperature recorded as 36.2°C & for the recent week 163.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/1.1 Knots.

Peshawar

Rainfall reported as 14.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 3.0/4.3 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 31.9°C & for the recent week 141.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/2.0 Knots.

Kalam

Rainfall reported as 25.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 6.0/5.1 Oktas while, average relative humidity observed as 68%. Mean day time temperature recorded as 17.8°C by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 Knots.

Gilgit

Rainfall reported as 3.73 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 7.0/6.6 Oktas while, average relative humidity observed as 51%. Mean day time temperature recorded as 23.8°C & for the recent week 83.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.6/6.3 Knots.

Skardu

Rainfall reported as 8.02 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 7.0/6.1 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 16.5°C by the end of last week. Wind speed recorded in the morning/evening as 0.0/3.1 Knots.

**Crop Situation for Major Agricultural Plains
(Based on data from Regional Agromet Centres)****Potohar Region (Rawalpindi)**

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

Central Punjab (Faisalabad)

There is presently one crop (irrigated conditions) grown in the fields of RAMC Faisalabad.

Wheat: Very good condition, *Wax Maturity* stage completed.

Lower Sindh (Tandojam)

There is presently no crop grown in the fields of Tandojam.

Northern Balochistan (Quetta)

There is presently one crop (irrigated conditions) grown in the fields of RAMC Quetta.

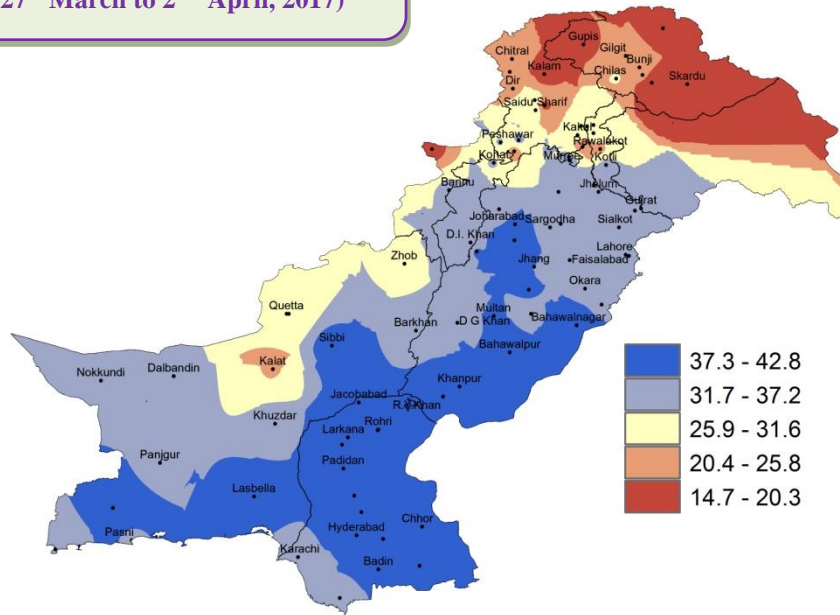
Wheat (Local white): Good condition at *Heading* stage.

Eastern Balochistan (Usta Muhammad)

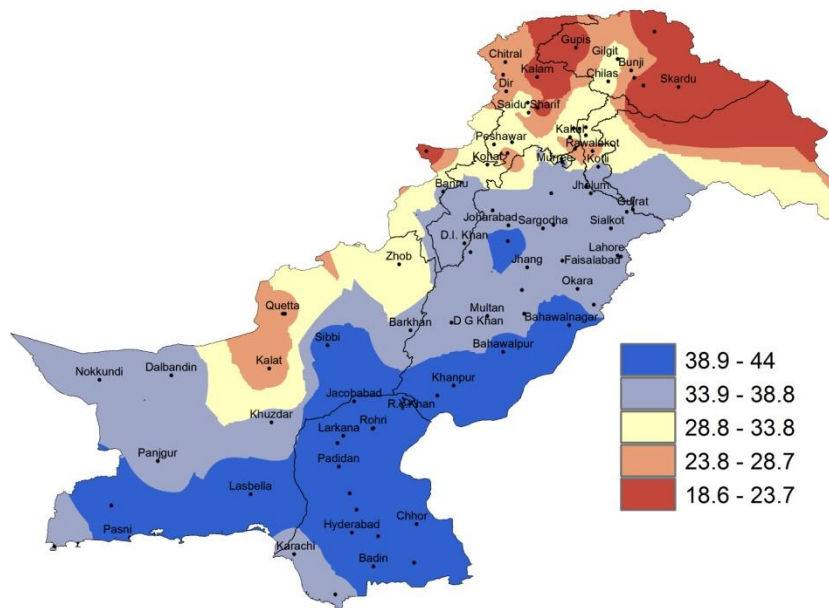
There is presently one crop (irrigated conditions) grown in the fields of RAMC Usta Muhammad.

Wheat: Crop has been harvested on 27-03-2017.

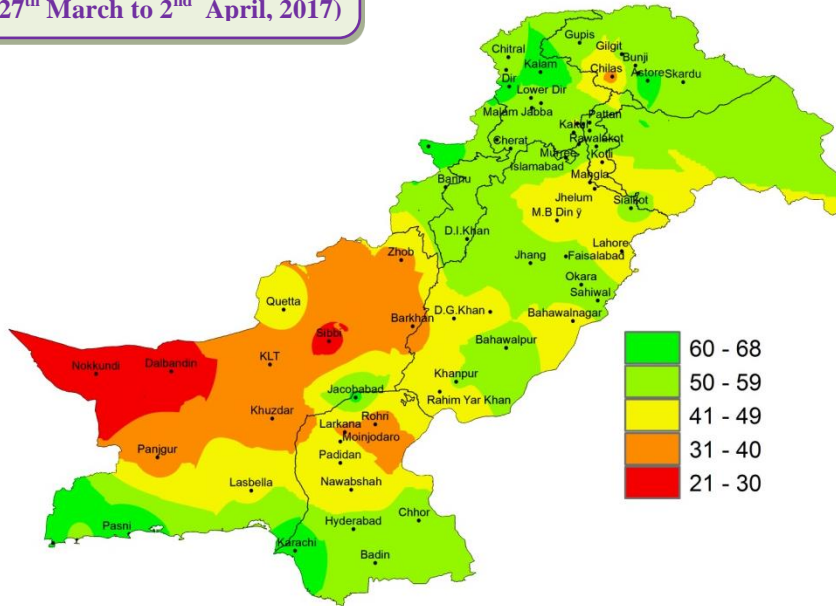
Mean Maximum Temperature (°C) during the Previous week (from 27th March to 2nd April, 2017)



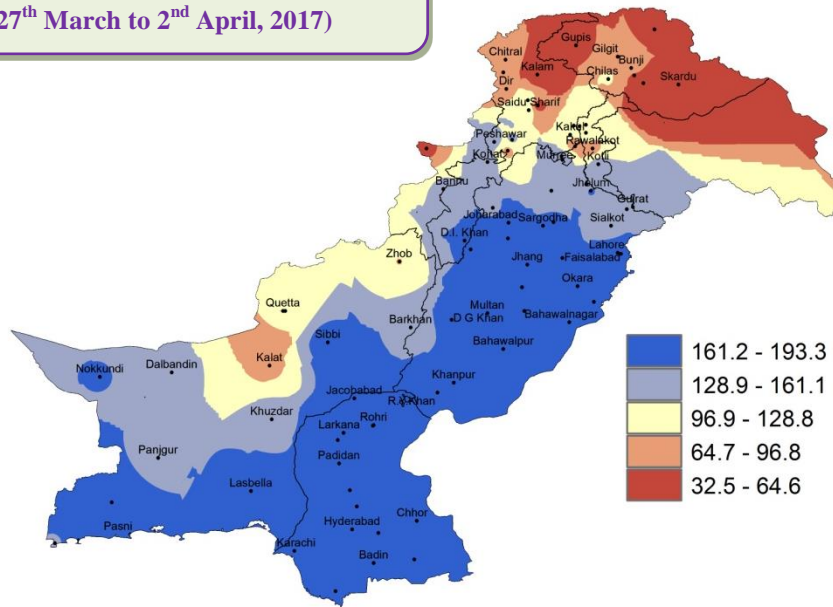
Highest maximum Temperature (°C) during the Previous week (from 27th March to 2nd April, 2017)



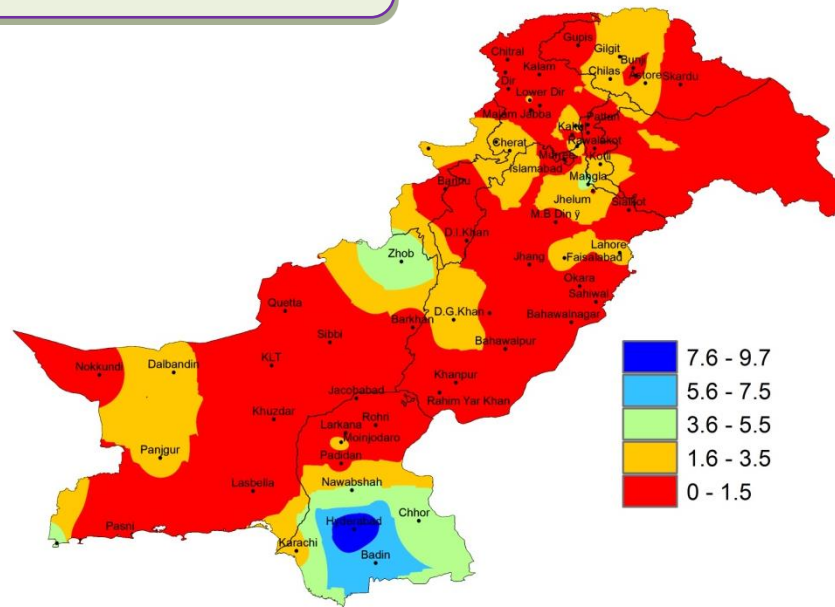
Mean Relative Humidity (%) during the Previous week (from 27th March to 2nd April, 2017)



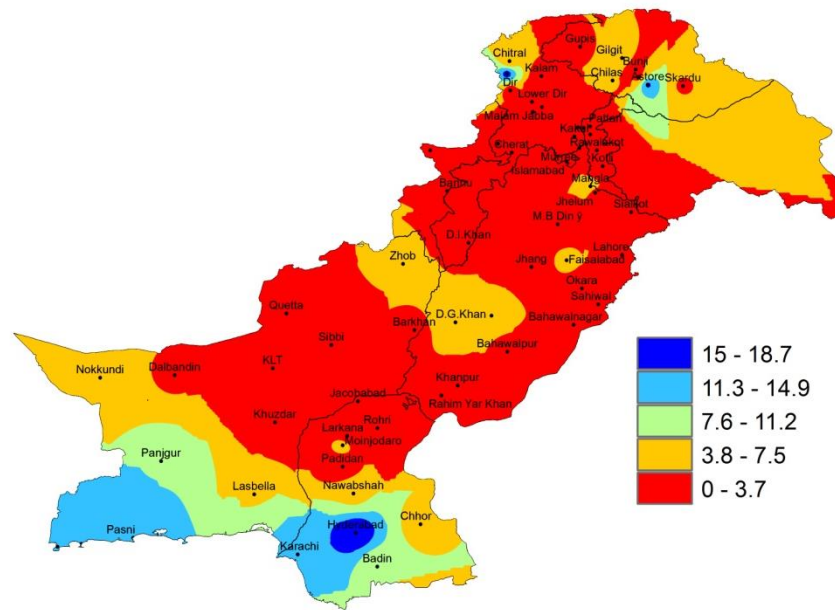
Total Growing Degree Days accumulated during the Previous week (from 27th March to 2nd April, 2017)



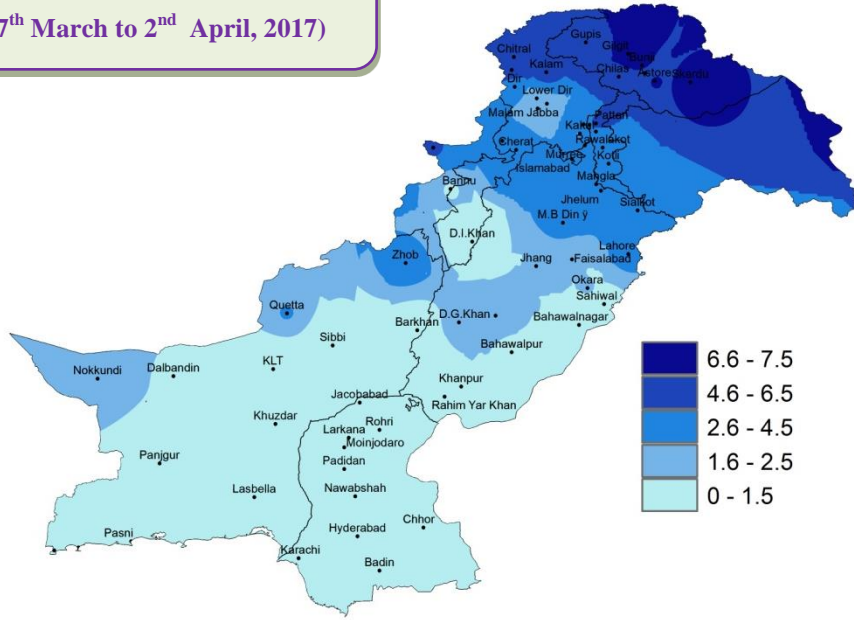
Mean Wind Speed (Knots) at 0800PST during the Previous week (from 27th March to 2nd April, 2017)



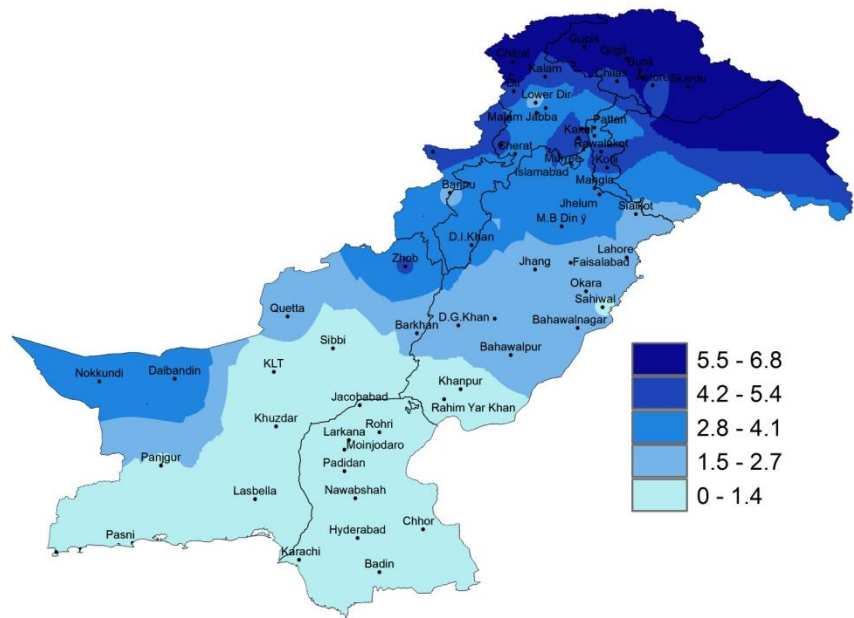
Mean Wind Speed (Knots) at 1700PST during the Previous week (from 27th March to 2nd April, 2017)



Mean Cloudiness (Oktas) at 0800PST during the Previous week (from 27th March to 2nd April, 2017)



Mean Cloudiness (Oktas) at 1700PST during the Previous week (from 27th March to 2nd April, 2017)



Weekly Weather Advisory for Farmers**(from 3rd to 9th April, 2017)**

A fresh westerly wave is likely to enter in Pakistan today (evening) and likely to grip upper and central parts of the country tonight and may persist till Thursday.

MONDAY**03-04-2017**

Mainly dry weather is expected in most parts of the country during day time. However, rain-dust/thunderstorm (associated with gusty winds) is expected at scattered places in KP, FATA, Islamabad, Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad divisions, Kashmir and Gilgit-Baltistan, while at isolated places in D.G. Khan, Multan, Sahiwal, Quetta, Zhob divisions during evening/night.

TUESDAY**04-04-2017**

Rain-dust/thunderstorm (associated with gusty winds) is expected at scattered places in KP, FATA, Islamabad, Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad divisions, Kashmir and Gilgit-Baltistan, while at isolated places in D.G. Khan, Multan, Sahiwal, Quetta, Zhob divisions.

Heavy falls are also expected at isolated places in Malakand, Hazara divisions and Kashmir due to heavyfalls there is a risk of flash flooding/land sliding in vulnerable areas. Hailstorm is also expected in Islamabad, upper Punjab, upper KP and Kashmir.

WEDNESDAY**05-04-2017**

Rain-thunderstorm (associated with gusty winds) is expected at scattered places of KP, FATA, upper Punjab, Islamabad, Kashmir & Gilgit-Baltistan. Heavy falls are also expected at isolated places in Malakand, Hazara divisions and Kashmir due to heavy falls there is a risk of flash flooding/land sliding in vulnerable areas. Hailstorm is also expected in Islamabad, upper Punjab, upper KP and Kashmir.

THURSDAY**06-04-2017**

Rain-thunderstorm (associated with gusty winds) with few hailstorm is expected at scattered places of upper KP (Malakand, Hazara, Peshawar, Mardan, Kohat divisions), FATA, upper Punjab (Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad divisions), Islamabad, Kashmir & Gilgit-Baltistan. Dry weather is expected elsewhere in the country.

FRIDAY**07-04-2017**

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm (associated with gusty winds) is expected at isolated places of Kashmir and its adjoining hilly areas.

SATURDAY**08-04-2017**

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

SUNDAY**09-04-2017**

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

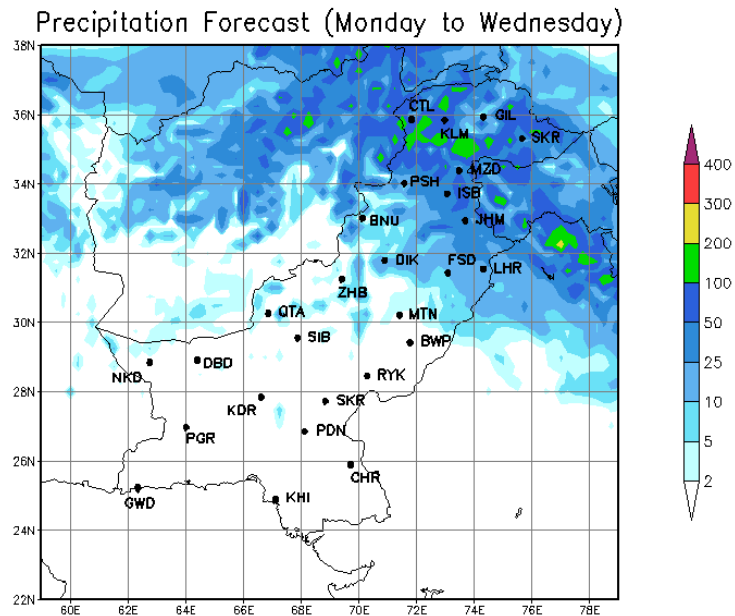
ADVISES FOR FARMERS

During the last week, light to moderate rainfall reported from scattered places in the northern half of the country. This may continue in the same manner in the next couple of days. Keeping in view the expected weather conditions following advises are suggested for farming community.

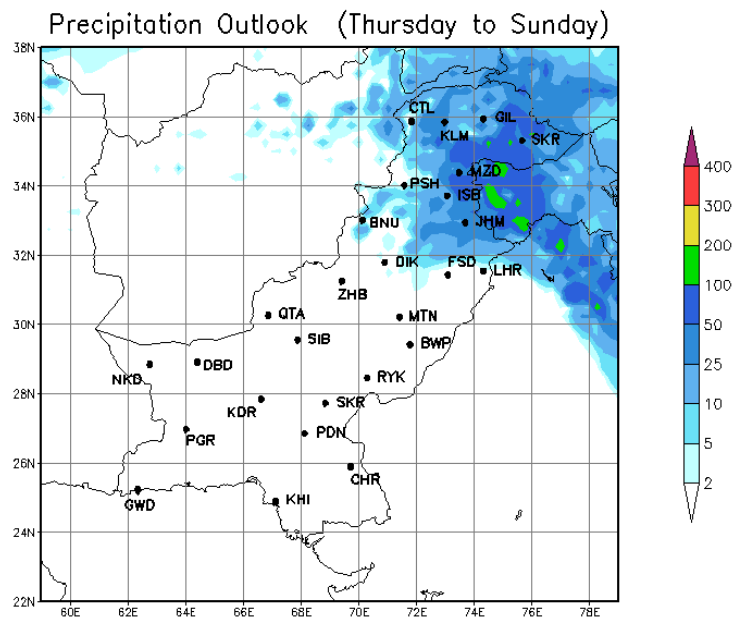
- Harvesting of wheat crop may be rescheduled in the particular areas where rainfall/storms are predicted. Besides, precautionary measures may be taken to preserved grains.

Weather Outlook from 3rd to 9th April, 2017

The forecast from 3rd to 5th April, 2017 shows that moderate to heavy rainfall is expected in KP, northern Balochistan, GB, northern Punjab and Kashmir.



The outlook from 6th to 9th April, 2017 shows that dry weather is expected in most parts of the country. However, light to moderate rainfall is expected in KP, GB, Kashmir and northern Punjab.



National Weather Data of Selected Cities
(Weekly Data from 27th March to 2nd April, 2017)

Stations	Maximum/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	highest							
Astore	14.6	18.5	32.0	61	13.80	6.7	4.7	2.9	15.9
Badin	38.7	40.0	178.1	53	0.00	0.4	0.0	5.7	7.7
Bahawalnagar	38.5	40.5	176.4	45	0.00	0.9	2.1	0.0	1.7
Bahawalpur	37.7	39.2	169.7	52	0.00	1.1	1.7	1.1	2.0
Balakot	29.6	31.5	114.3	47	13.50	3.0	4.0	2.4	1.1
Bannu	32.9	34.4	136.1	54	5.00	1.4	2.6	0.0	3.4
Barkhan	33.0	34.0	145.4	35	0.00	0.3	1.4	0.6	2.3
Bunji	23.8	28.9	92.7	48	1.13	7.6	6.9	1.4	0.9
Cherat	23.0	24.0	85.6	49	4.00	3.3	3.7	2.9	2.9
Chhor	41.4	42.4	186.1	52	0.00	0.3	0.0	4.0	5.4
Chilas	26.0	30.0	98.8	38	0.41	5.7	4.6	2.3	4.3
Chitral	22.4	25.9	74.2	56	3.61	5.1	5.7	0.9	3.4
D.G.Khan	36.7	37.0	168.2	49	0.00	2.0	2.0	3.1	7.4
D.I.Khan	36.2	37.2	163.4	59	1.01	0.6	2.9	1.1	1.1
Dalbandin	34.6	36.5	136.6	28	0.00	1.4	4.0	1.7	3.1
Dir	24.6	27.2	78.0	64	10.00	3.6	5.1	0.0	1.7
Drosh	22.9	27.0	74.8	54	12.20	5.4	5.7	0.0	16.7
Faisalabad	35.8	38.8	162.5	48	0.00	1.1	3.1	0.9	0.6
Garidopatta	29.4	32.3	116.4	58	7.80	4.0	4.0	0.6	2.3
Gawadar	36.9	38.0	171.8	56	0.00	1.0	0.6	0.0	11.7
Gilgit	23.8	30.0	83.0	51	3.73	7.0	6.6	2.6	6.3
Gupis	18.0	21.5	45.5	52	5.00	6.0	6.0	0.9	2.9

Hyderabad	40.4	41.5	180.1	56	0.00	0.4	0.0	9.7	18.7
Islamabad	32.1	33.0	131.9	54	0.04	2.9	4.0	0.3	2.6
Jacobabad	40.3	42.5	190.4	60	0.00	0.9	1.1	0.9	1.1
Jhang	37.2	38.0	167.8	55	1.20	1.6	2.4	0.9	1.7
Jhelum	36.7	38.0	162.4	43	0.20	3.0	3.4	1.1	3.1
Jiwani	32.8	35.0	159.1	65	0.00	0.7	0.3	5.1	12.0
Kakul	27.0	29.0	99.8	53	10.00	2.4	4.7	0.9	1.4
Kalam	17.8	21.5	43.0	68	25.00	6.0	5.1	0.0	0.0
Karachi	34.5	37.5	169.1	64	0.00	1.5	1.1	3.0	12.3
Khanpur	39.9	41.0	180.2	50	0.00	1.4	1.1	0.0	1.4
Khuzdar	33.5	34.5	144.6	35	0.00	0.0	0.0	0.6	0.9
Kalat	25.4	26.0	86.5	32	0.00	0.0	0.0	0.0	0.0
Kotli	33.4	35.0	147.1	43	6.00	4.0	4.1	2.9	1.4
Lahore	36.3	37.0	171.7	41	0.01	3.0	2.7	1.7	3.4
Larkana	42.0	44.0	193.3	37	0.00	1.3	1.0	1.1	1.7
Lasbella	40.3	42.0	179.9	49	0.00	0.0	0.1	0.0	7.4
Lower Dir	30.4	31.5	126.3	53	3.00	1.6	1.6	1.7	0.9
M.B Din	37.1	37.5	165.8	45	0.01	3.1	3.1	1.1	1.1
Malam Jabba	17.6	19.0	41.5	54	11.00	2.3	3.6	0.0	2.9
Mangla	35.8	37.1	154.3	42	2.90	4.4	4.0	4.9	4.9
Mir Khani	21.8	23.3	59.5	60	17.00	4.7	6.0	0.7	2.6
Moinjodaro	41.2	42.0	180.8	43	0.00	0.4	0.4	1.7	4.9
Multan(PBO)	37.3	38.3	174.3	48	0.00	2.1	2.1	1.1	6.0
Murree	21.8	23.5	80.4	51	8.40	2.9	4.0	2.6	1.1
Muzaffarabad	28.8	31.4	110.4	57	9.80	4.1	4.3	1.6	1.6
Nawabshah	42.8	44.0	187.9	40	0.00	0.9	0.0	3.7	6.0

Nokkundi	35.3	37.5	162.4	21	0.00	2.4	2.9	1.4	4.3
Okara	36.7	38.5	167.3	56	0.01	1.6	1.4	0.3	2.0
Padidan	42.0	43.0	179.4	44	0.00	0.7	0.7	1.1	2.0
Panjgur	35.8	37.0	151.3	37	0.00	0.0	1.3	1.7	10.9
Parachinar	17.9	20.0	56.4	69	22.00	4.7	5.3	3.0	3.0
Pasni	36.7	41.5	162.1	66	0.00	0.7	0.6	0.0	14.4
Pattan	27.4	33.0	115.0	52	12.00	5.1	3.1	0.0	0.3
Peshawar	31.9	33.5	141.8	55	14.02	3.0	4.3	1.7	2.0
Quetta	25.6	26.6	100.0	33	0.00	2.6	3.0	1.6	2.8
Rahim Yar Khan	41.0	42.6	180.0	47	0.00	0.4	0.4	0.0	1.7
Rawalakot	24.7	26.0	82.0	59	6.50	3.6	4.3	0.0	1.7
Rawalpindi	33.2	35.0	142.5	58	1.40	2.4	3.9	1.4	2.3
Rohri	41.1	43.0	190.5	34	0.00	0.0	0.4	0.3	0.6
Sahiwal	36.8	38.5	161.6	52	0.00	0.9	1.3	0.0	1.7
Saidu Sharif	28.7	29.7	117.1	51	6.00	1.9	3.9	0.9	0.0
Sialkot	35.1	36.3	150.1	52	0.20	2.7	2.4	0.3	2.0
Sibbi	41.5	42.5	187.1	28	0.00	0.0	0.0	0.3	0.9
Skardu	16.5	20.6	45.3	52	8.02	7.0	6.1	0.0	3.1
Tandojam	41.1	42.0	175.5	53	0.00	0.0	0.0	0.8	2.9
Usta.M	37.2	40.6	154.3	40	0.00	0.0	0.0	0.5	1.7
Zhob	29.0	30.0	96.5	39	12.00	3.1	4.1	5.0	5.0

*** 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)