

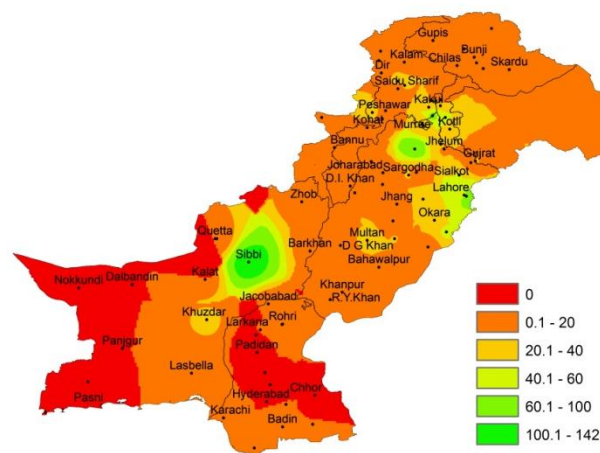
Weekly Weather and Crop Bulletin for Pakistan

**NATIONAL AGROMET CENTRE
PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the
Previous Week (from 5th June to 11th June, 2017)**



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Highlights of Past Weather (from 5th June to 11th June, 2017)

Below normal day time temperatures reported from most parts of the country.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall reported from most places of Punjab, Khyber Pakhtunkhwa (KP), Gilgit-Baltistan and Azad Kashmir.
- Light to moderate rainfall reported from scattered places of Sindh and Balochistan.
- Whereas, at Sibbi (Balochistan province) the highest amount of rainfall recorded as 142 mm.

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 5th June to 11th June, 2017)

Punjab

Light to moderate rainfall reported from most places of Punjab during the week. Weekly maximum and minimum temperatures recorded as 38.7°C & 25.4°C respectively. For the recent week on average 189.4 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 50% and wind speed in the morning/evening recorded as 3.8/5.1 Knots. During the previous week the highest amount of rainfall was recorded as 89.2mm at Chakwal & highest maximum temperature was recorded as 48.0°C at Bhakkar.

Balochistan

Light to moderate rainfall reported from scattered places of Balochistan during the week. Weekly maximum and minimum temperatures recorded as 38.5°C & 24.2°C respectively. For the recent week on average 187.7 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 44% and wind speed in the morning/evening recorded as 1.6/6.3 Knots. During the previous week the highest amount of rainfall was recorded as 142 mm at Sibbi & highest maximum temperature was recorded as 50.0°C at Sibbi.

Khyber Pakhtunkhwa

Light to moderate rainfall reported from most of the places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 35.3°C & 20.5°C respectively. For the recent week on average 159.5 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 45% and wind speed in the morning/evening recorded as 1.3/4.0 Knots. During the previous week the highest amount of rainfall was recorded as 38.0 mm at Peshawar &

highest maximum temperature was recorded as 47.0°C at D.I.Khan.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from most places of places of Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 30.5°C & 16°C respectively. For the recent week on average 130.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 45% and wind speed in the morning/evening recorded as 1.0/3.5 Knots. During the previous week the highest amount of rainfall was recorded as 44.3mm at Rawalakot & highest maximum temperature was recorded as 43.3°C at Kotli.

Sindh

Light to moderate rainfall reported from scattered places of Sindh during the week. Weekly maximum and minimum temperatures recorded as 41.3°C & 28.3°C respectively. For the recent week, on average 209.2 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 53% and wind speed in the morning/evening recorded as 6.6/7.3 Knots. During the previous week the highest amount of rainfall was recorded as 2.0 mm at Badin, highest maximum temperature was recorded as 47.4°C at Daddu.

**Past Weather for Major Agricultural Plains
(from 5th June to 11th June, 2017)****Rawalpindi (Potohar region)**

Rainfall reported as 20.6 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 1.1/3.3 Oktas while, average relative humidity observed as 56%. Mean day time temperature recorded as 37.9°C & for the recent week 264.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/2.0 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 26.0 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.7/0.6 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 37.9°C & for the recent week 188.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.7/3.6 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/0.8 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded as 39.7°C & for the recent week 193.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 6.6/9.1 Knots.

Usta Muhammad (Eastern Balochistan)

Rainfall reported as 11.0 mm from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.5/0.0 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 42.9°C & for the recent week 211.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 7.8/8.3 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.0/1.1 Oktas while, average relative humidity observed as 22%. Mean day time temperature recorded as 34.1°C & for the recent

week 154.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.3/7.3 Knots.

**Past Weather for Sub-Regional Agricultural
Plains (from 5th June to 11th June, 2017)****Multan**

Rainfall reported as 27.4 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 3.1/3.4 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 39.1°C & for the recent week 199.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 8.0/9.4 Knots.

Lahore

Rainfall reported as 57.0 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 1.6/1.9 Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded as 37.3°C & for the recent week 185.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/10.7 Knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/3.1 Oktas while, average relative humidity observed as 51%. Mean day time temperature recorded as 36.9°C & for the recent week 168.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/8.4 Knots.

Murree

Rainfall reported as 69.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 2.9/5.4 Oktas while, average relative humidity observed as 59%. Mean day time temperature recorded as 24.5°C & for the recent week 100.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/0.0 Knots.

D.I. Khan

Rainfall reported as 2.0 mm from D.I.Khan during the week; however, cloudiness in the morning/evening recorded as 1.7/2.3 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 40.7°C & for the recent week 196.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.6/2.0 Knots.

Peshawar

Rainfall reported as 35.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.1/4.7 Oktas while, average relative humidity observed as 47%. Mean day time temperature recorded as 38.6°C & for the recent week 184.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/3.7 Knots.

Kalam

Rainfall reported as 3.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 2.4/5.3 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 26.5°C & for the recent week 98.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.3 Knots.

Gilgit

Dry weather reported from Gigit during the week; However, cloudiness in the morning/evening recorded as 3.6/5.7 Oktas while, average relative humidity observed as 43%. Mean day time temperature recorded as 31.1°C & for the recent week 124.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/10.6 Knots.

Skardu

Rainfall reported as 2.0 mm from Skardu during the week; cloudiness in the morning/evening recorded as 4.1/5.1 Oktas while, average relative humidity observed as 44%. Mean day time temperature recorded as 26.8°C & for the recent week 97.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.6 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)

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

Cotton: Good condition, *Third Leaf completed*.

Lower Sindh (Tandojam)

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

Cotton (HH-906): Good condition, *Budding stage*.

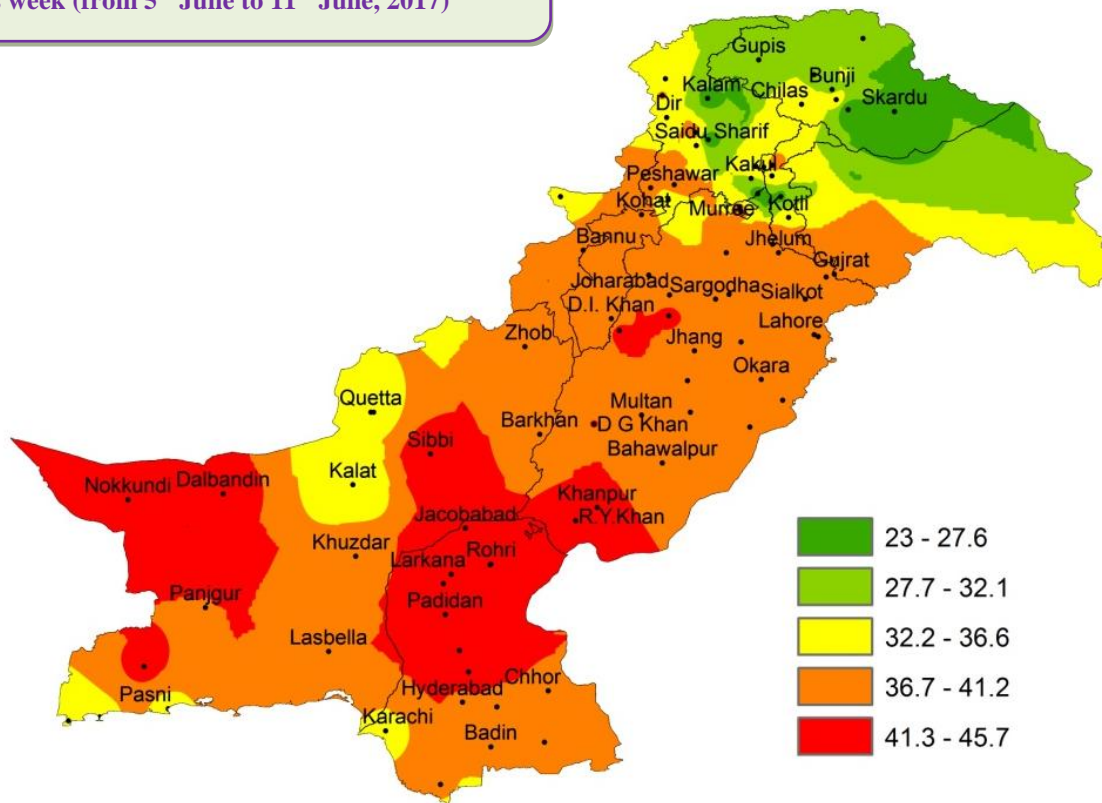
Northern Balochistan (Quetta)

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

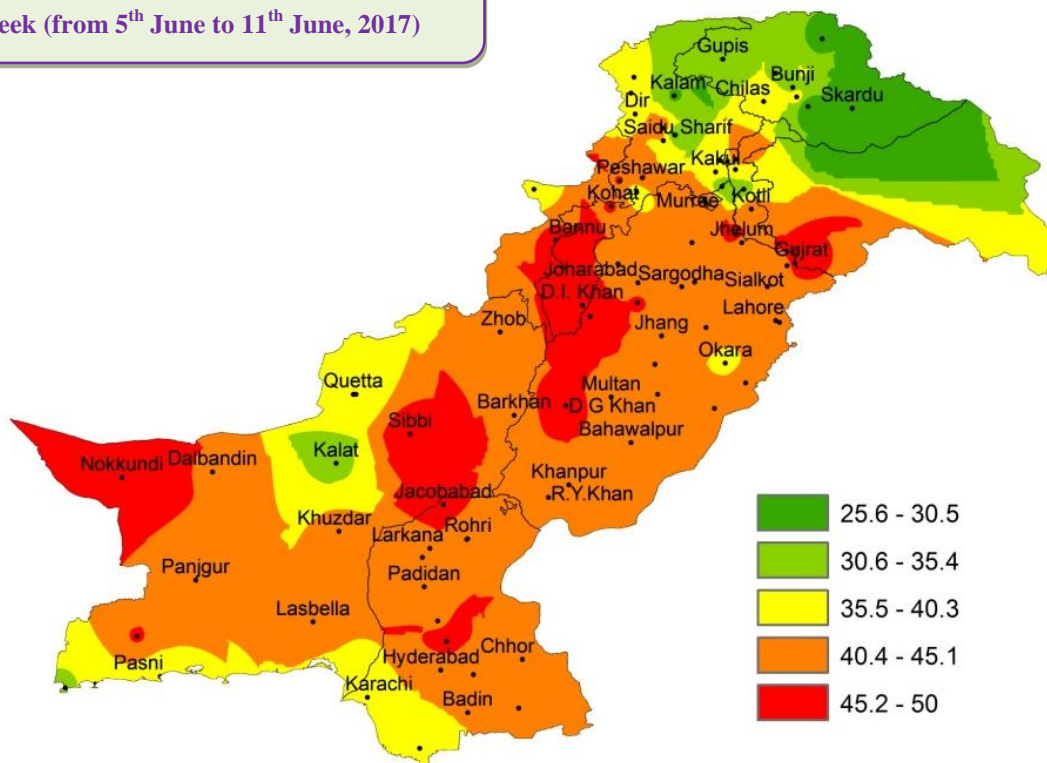
Eastern Balochistan (Usta Muhammad)

Land has been prepared for new crop.

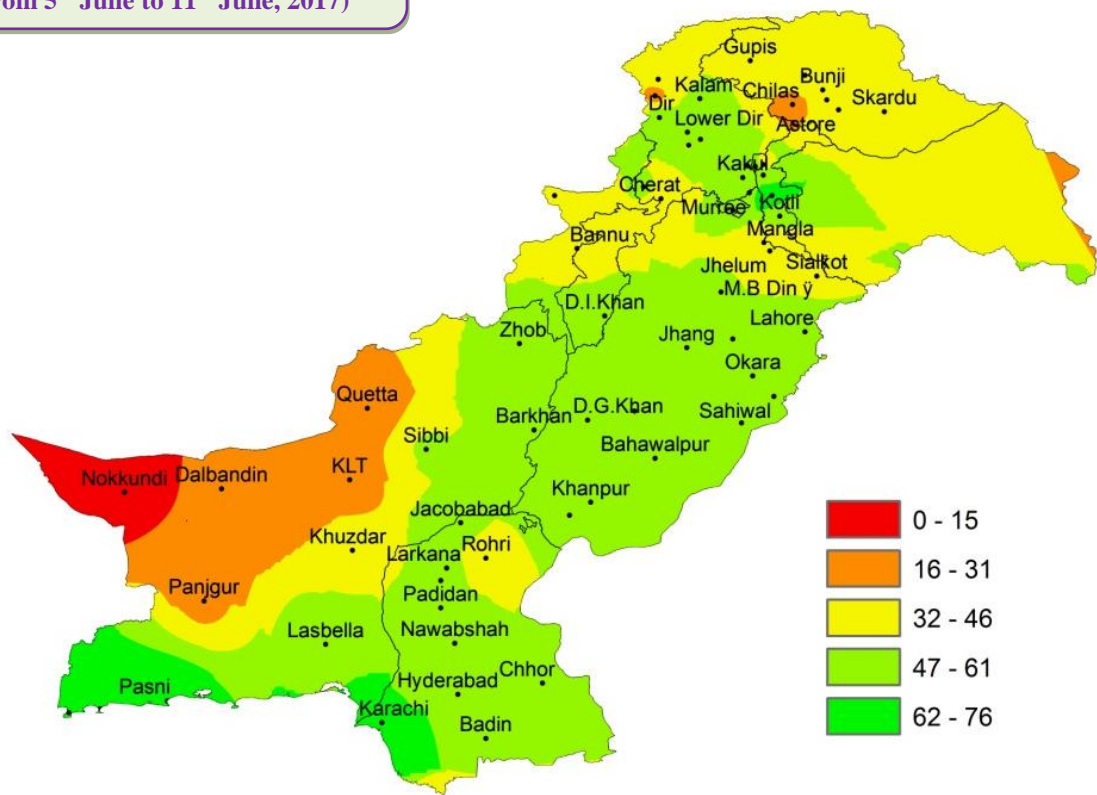
Mean Maximum Temperature (°C) during the
Previous week (from 5th June to 11th June, 2017)



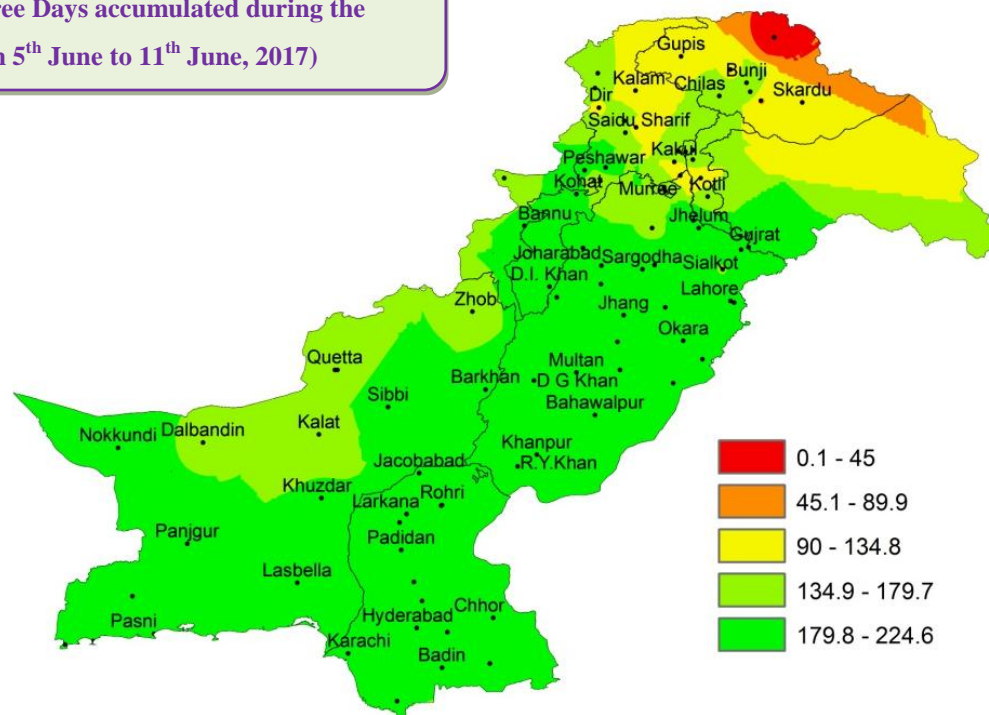
Highest maximum Temperature (°C) during the
Previous week (from 5th June to 11th June, 2017)



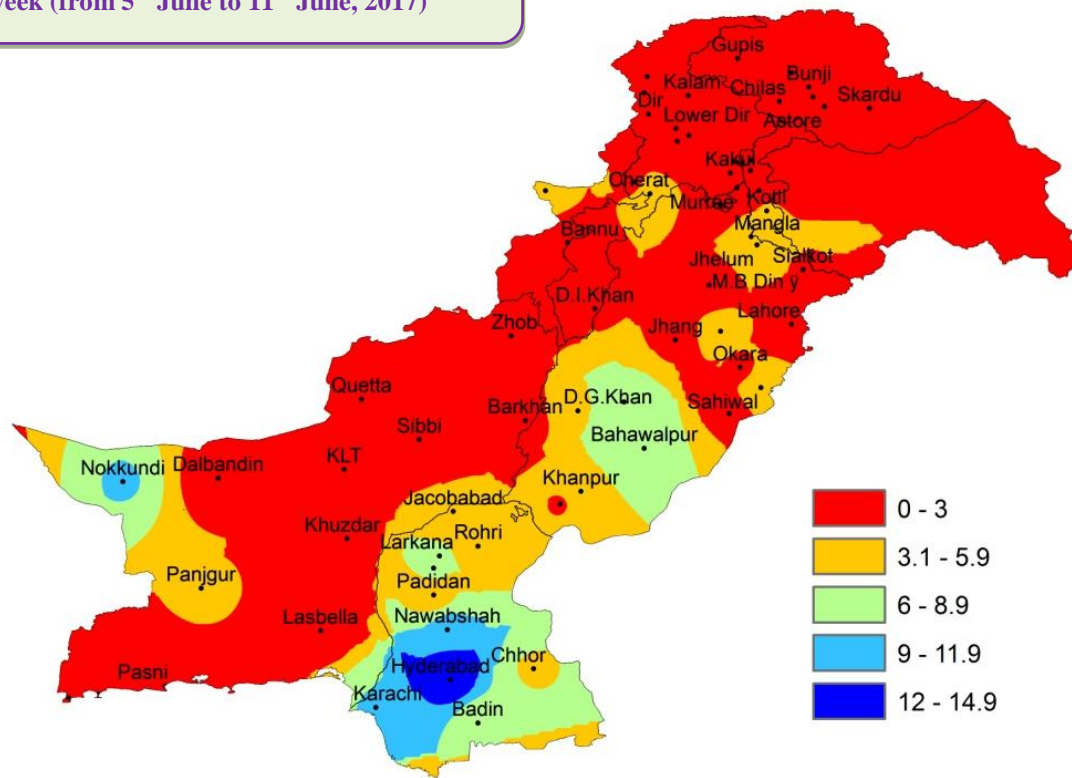
Mean Relative Humidity (%) during the
Previous week (from 5th June to 11th June, 2017)



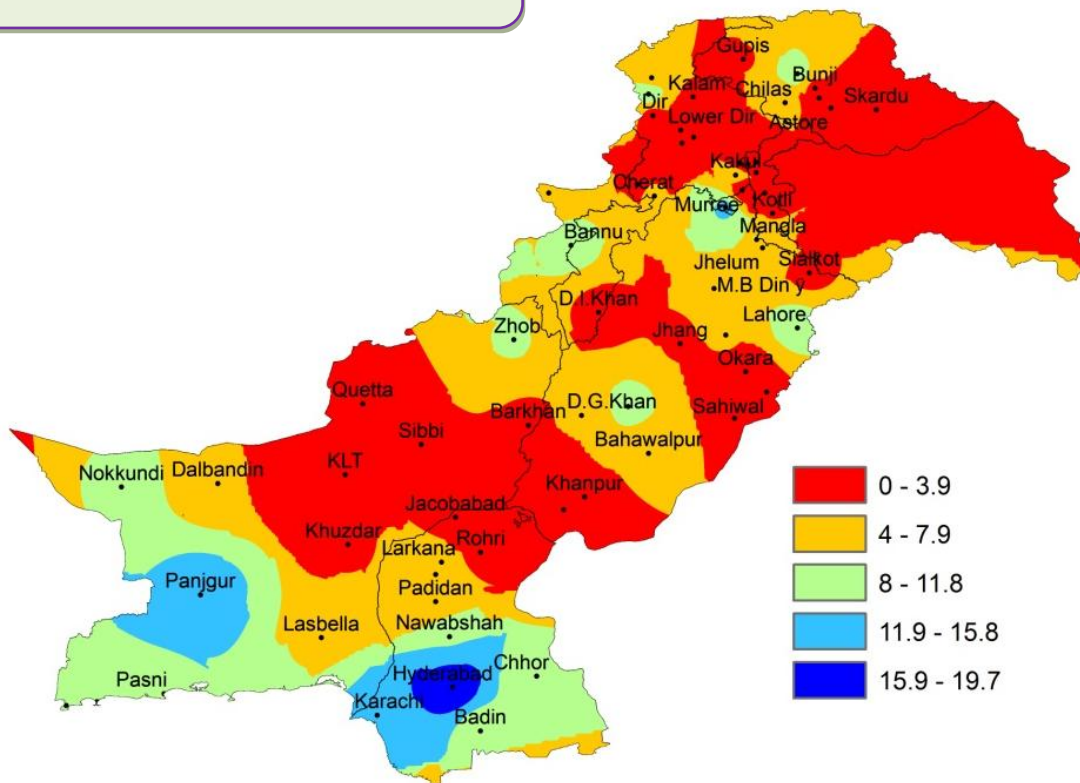
Total Growing Degree Days accumulated during the
Previous week (from 5th June to 11th June, 2017)



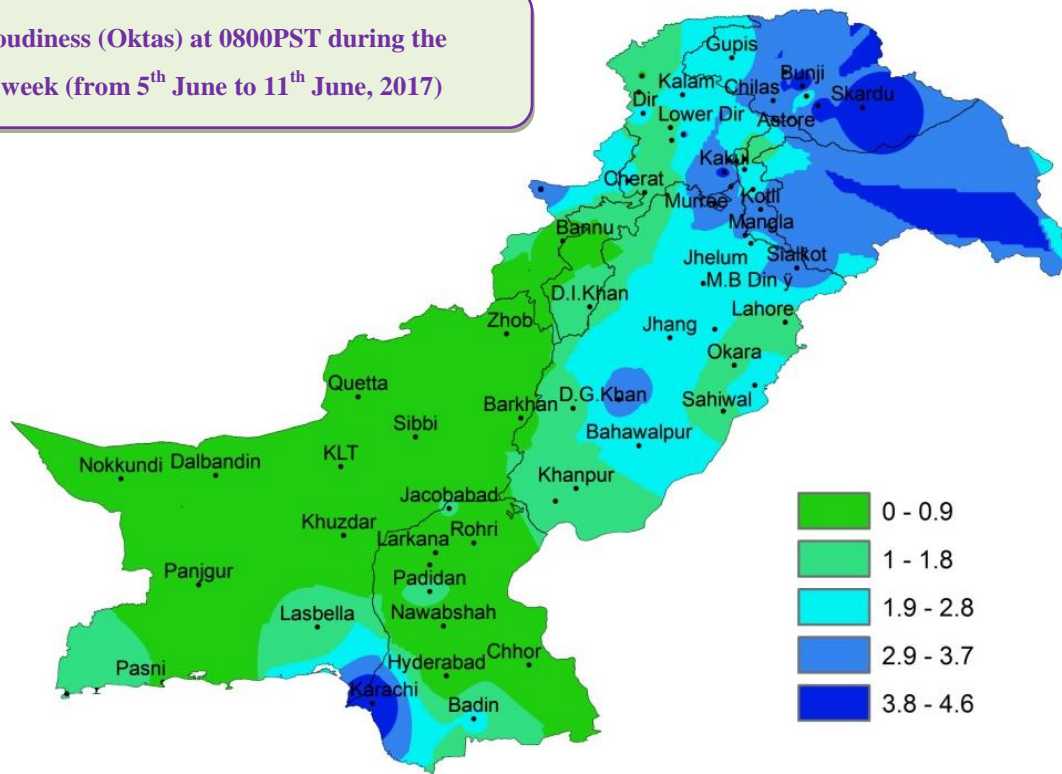
Mean Wind Speed (Knots) at 0800PST during the
Previous week (from 5th June to 11th June, 2017)



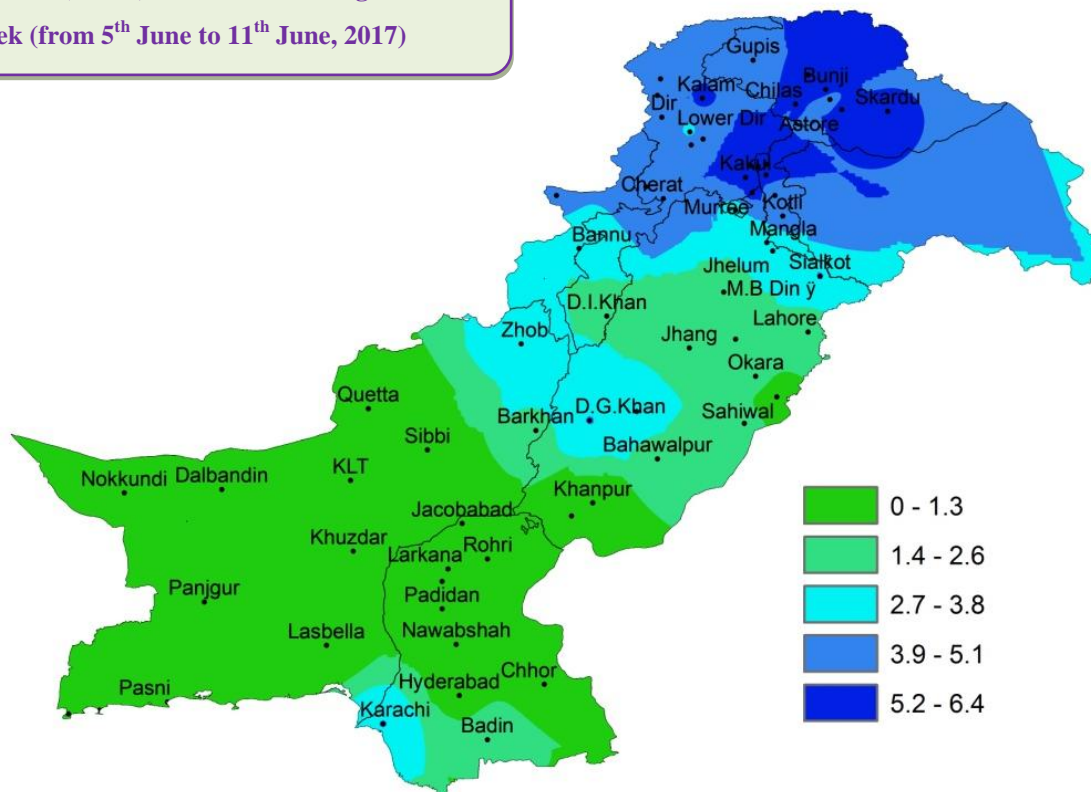
Mean Wind Speed (Knots) at 1700PST during the
Previous week (from 5th June to 11th June, 2017)



Mean Cloudiness (Oktas) at 0800PST during the
Previous week (from 5th June to 11th June, 2017)



Mean Cloudiness (Oktas) at 1700PST during the
Previous week (from 5th June to 11th June, 2017)



Weekly Weather Advisory for Farmers**(from 12th June to 18th June, 2017)**

A westerly wave is still affecting upper and central parts of the country and likely to persist next 2 days.

MONDAY**12-06-2017**

Rain-thunderstorm with gusty winds is expected at scattered places in Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad, Sahiwal, Multan, D.G.Khan, Bahawalpur, Peshawar, Bannu, Kohat, Mardan, D.I.Khan, Hazara divisions, FATA, Islamabad & Kashmir, while at isolated places in Malakand & Gilgit-Baltistan. Hot and dry weather is expected other parts of the country.

TUESDAY**13-06-2017**

Hot and dry weather is expected in most parts of the country. However, rain-thunderstorm with gusty winds is expected at isolated places in Hazara, Kohat, Bannu, Rawalpindi, Multan, Faisalabad, Sahiwal, Lahore, D.G khan divisions & Kashmir.

WEDNESDAY**14-06-2017**

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at few places in Malakand, Hazara, Sargodha, Gujranwala, Lahore, Faisalabad divisions, Gilgit-Baltistan and Kashmir.

THURSDAY**15-06-2017**

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at few places in Hazara, Gujranwala, Lahore, Faisalabad divisions, Gilgit-Baltistan and Kashmir.

FRIDAY**16-06-2017**

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at isolated places in Gujranwala, Lahore, Faisalabad, Sahiwal divisions, Gilgit-Baltistan and Kashmir.

SATURDAY**17-06-2017**

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at isolated places in D.I khan, Bannu, Hazara, Kohat, Sargodha, Rawalpindi, Faisalabad, Lahore divisions, Islamabad & Kashmir.

SUNDAY**18-06-2017**

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

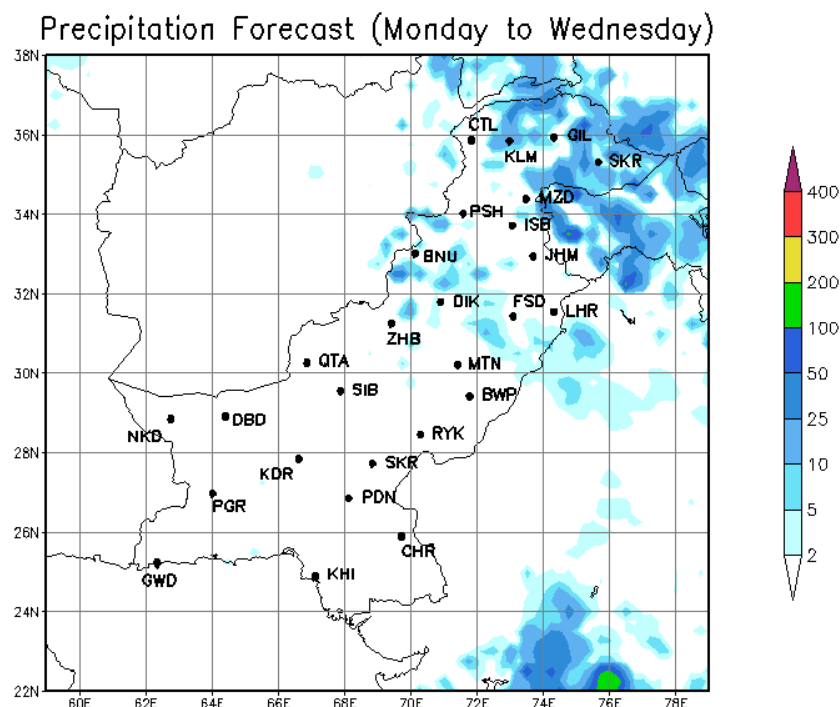
ADVISES FOR FARMERS

During the last week, light to moderate rainfall occurred mainly in upper half of the country except Sindh and western Balochistan. This may continue with almost the same pattern over northern parts and coastal areas of the country in coming days as well. Keeping in view the expected weather conditions following advises are suggested for farming community.

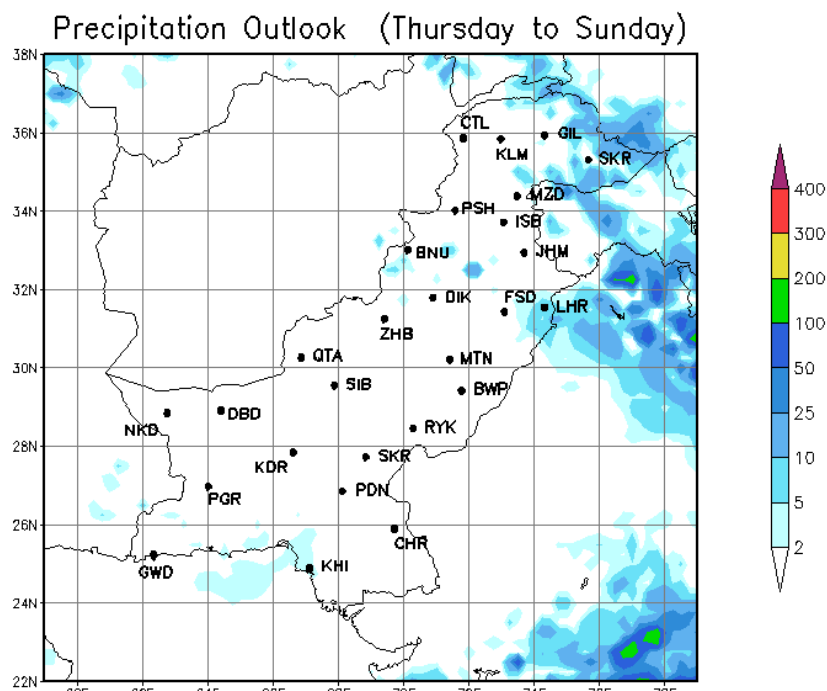
- Farmers of irrigated areas may irrigate the standing crops as per requirement in accordance with the expected weather conditions.
- Farmers of Rice growing areas may complete sowing of their crops.

Weather Outlook from 12th June to 18th June, 2017

The forecast from 12th to 14th June, 2017 shows that light rainfall is expected at most places of GB and Kashmir and scattered places of central KP and Punjab. However, dry weather may prevail in rest parts of the country.



The outlook from 15th June to 18th June, 2017 shows that dry weather is expected in most parts of the country. However, light rainfall is expected at isolated places in northeastern Punjab, KP, GB and Kashmir.



National Weather Data of Selected Cities
(Weekly Data from 5th June to 11th June, 2017)

Stations	Maximum/Nighttime 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	22.89	25.50	84.60	44.36	3.60	4.29	5.86	1.71	2.57
Badin	38.71	40.50	199.20	60.29	2.00	2.00	2.29	6.00	8.57
Bahawalnagar	40.93	45.00	199.25	49.93	0.02	1.71	1.43	2.00	2.00
Bahawalpur	39.06	42.30	196.05	55.86	14.00	2.00	1.86	8.29	5.14
Balakot	34.00	39.00	149.30	46.50	15.00	3.00	6.43	0.43	1.57
Bannu	40.26	46.20	182.70	40.57	0.00	0.00	2.57	1.33	10.00
Barkhan	37.71	44.00	182.50	46.93	4.50	0.71	2.29	1.14	2.86
Bunji	30.54	34.40	141.35	34.86	1.11	4.71	6.29	0.86	2.86
Cherat	32.43	36.00	148.00	42.07	1.00	1.14	4.29	4.57	4.29
Chhor	40.76	42.50	209.30	58.64	0.00	0.29	0.71	5.43	8.29
Chilas	35.53	39.00	168.35	26.00	1.00	3.29	5.14	2.00	5.14
Chitral	34.07	36.00	135.80	34.14	0.00	0.86	4.29	0.86	6.29
D.I.Khan	40.71	47.00	196.25	51.71	2.01	1.71	2.29	2.57	2.00
Dalbandin	43.21	45.00	171.25	15.79	0.00	0.00	0.29	0.00	4.29
D.G.Khan	41.21	47.00	209.50	53.71	1.01	1.57	3.86	5.71	4.33
Dir	32.71	38.00	126.35	56.07	10.00	2.00	5.14	0.00	2.29
Drosh	37.04	38.50	165.10	25.21	0.00	1.71	4.57	0.57	10.71
Faisalabad	37.90	42.50	188.10	52.00	26.00	1.70	0.60	3.70	3.60
Garidopatta	35.94	38.20	157.25	55.64	33.90	2.71	5.29	0.29	4.00
Gawader	35.71	36.50	186.50	73.23	0.00	1.67	0.71	0.67	10.57
Gilgit	31.07	35.00	124.50	42.86	0.02	3.57	5.71	0.00	10.57
Gupis	28.29	30.50	113.50	36.71	3.00	2.29	4.29	2.00	3.43

Hyderabad	39.86	41.50	201.75	58.93	0.00	0.29	0.67	14.86	19.71
Islamabad	36.89	43.50	174.25	45.57	24.90	2.86	3.29	0.86	13.57
Jacobabad	42.86	46.00	212.20	50.43	0.00	1.00	0.00	3.71	1.14
Jhang	39.13	43.00	195.55	50.64	6.40	2.57	1.86	2.00	3.43
Jhelum	39.67	44.50	191.95	43.21	15.70	2.43	2.71	4.29	4.57
Jiwani	34.10	34.50	183.10	73.36	0.00	1.43	1.00	0.86	9.71
Kakul	31.86	39.00	134.00	48.71	33.02	4.00	5.14	0.00	7.14
Kalam	26.50	30.00	98.25	51.57	3.00	2.43	5.29	0.00	2.29
KLT	32.29	34.00	138.50	22.29	0.00	0.00	0.00	0.00	0.57
Karachi	36.09	36.50	195.10	64.64	0.70	4.57	3.86	9.14	13.14
Khanpur	41.47	43.00	209.30	48.79	0.10	1.86	0.86	6.00	3.14
Khuzdar	39.21	41.50	186.75	36.36	25.00	0.00	1.29	0.00	3.14
Kotli	35.67	43.30	167.70	47.43	26.60	3.43	4.86	3.71	3.71
Lahore	37.30	42.50	185.90	49.43	57.00	1.57	1.86	1.71	10.71
Larkana	43.57	45.00	218.75	48.36	0.00	0.29	0.00	6.00	4.86
Lasbella	40.64	41.30	209.90	58.79	0.01	1.43	0.00	0.00	6.57
Lower Dir	38.93	44.50	183.50	61.50	30.00	1.00	3.43	2.00	1.71
M.B Din	39.93	44.50	192.25	47.36	6.02	2.29	2.14	1.14	4.29
Malam Jabba	23.07	29.00	90.75	56.14	24.00	3.00	5.14	0.00	0.00
Mangla	39.01	45.70	188.90	42.00	26.61	2.86	3.00	4.29	8.29
Mir Khani	36.70	38.00	166.70	36.00	0.00	1.29	4.00	0.29	2.86
Moinjodaro	42.71	44.00	216.40	48.29	0.00	0.86	0.14	7.14	7.43
Multan(PBO)	39.07	43.10	199.55	48.00	27.40	3.14	3.43	8.00	9.43
Murree	24.51	30.80	100.25	59.43	69.00	2.86	5.43	1.71	0.00
Muzaffarabad	34.50	38.50	146.75	55.93	25.40	2.29	5.00	0.00	2.86
Nawabshah	43.29	44.50	213.50	47.14	0.00	0.29	0.43	11.43	11.71

Nokkundi	43.14	47.50	209.75	12.00	0.00	0.00	0.00	9.43	9.14
Okara	38.57	44.00	190.50	56.00	30.00	1.57	1.57	2.29	1.14
Padidan	43.07	44.00	215.50	54.21	0.00	1.14	0.29	3.14	4.00
Panjgur	41.14	43.00	199.00	26.14	0.00	0.00	0.29	4.00	14.86
Parachinar	33.07	36.50	163.85	37.00	1.00	3.71	4.29	4.43	5.00
Pasni	35.43	36.00	191.25	76.36	0.00	0.86	0.00	0.00	10.71
Pattan	37.86	43.00	181.50	37.36	4.00	0.86	5.71	0.00	0.57
Peshawar	38.59	45.50	184.90	47.21	35.00	2.14	4.71	2.29	3.71
Quetta	34.10	36.60	154.50	22.00	0.00	0.00	1.10	3.30	7.30
Rahim Yar Khan	42.97	44.80	212.65	54.14	0.00	1.00	0.71	2.57	2.00
Rawalakot	26.71	33.50	102.25	74.71	44.30	2.57	4.57	0.00	2.00
Rohri	43.00	44.00	227.50	38.79	0.00	0.00	0.00	4.29	2.29
Rawalpindi	37.90	45.00	264.70	56.00	20.60	1.10	3.30	0.90	2.00
Sahiwal	37.66	42.40	181.45	54.57	45.00	2.43	0.86	4.57	2.86
Saidu Sharif	36.43	40.50	165.00	43.79	0.01	1.57	5.14	0.00	0.00
Sialkot	38.76	44.00	190.55	44.57	4.11	3.17	3.86	2.67	2.57
Sibbi	45.36	50.00	222.50	47.71	142.00	0.14	0.57	0.00	2.86
Skardu	26.79	29.00	97.05	44.14	2.00	4.14	5.14	0.00	0.57
Tandojam	37.90	42.50	188.10	52.00	26.00	1.70	0.60	3.70	3.60
Usta.M	42.90	46.70	211.60	48.00	11.00	0.50	0.00	7.80	8.30
Zhob	36.86	41.50	168.75	50.79	0.00	0.00	3.14	1.43	8.43

*** 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 سبب باب (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)