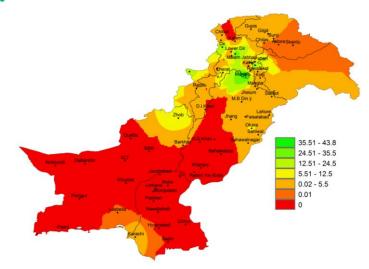
Weekly Weather and Crop Bulletin for Pakistan

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 (30th July to 5th August, 2018)



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

Editor-in-Chief: Asma Jawad Hashmi (Director) **Editor:** Saeeda Saleh (Assistant Meteorologist)

$\frac{Highlights \ of \ Past \ Weather \ (30^{th} \ July \ to \ 5^{th}}{August, 2018)}$

Above normal day temperature was observed in all over the country during the previous week.

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall observed in Khyber Pakhtunkhwa, Punjab and, Gilgit-Baltistan and Azad Jammu & Kashmir during the previous week.
- Light rainfall observed at a single station in Balochistan and Sindh during the previous week.

Past Weather of Provinces (30th July to 5th **August**, 2018)

Punjab

Light to moderate rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 37.2°C & 27.2°C respectively. For the recent week on average 190.4 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 64% and wind speed in the morning/evening recorded as 5.1/3.6 Knots. During the previous week the highest amount of rainfall was recorded as 65.01 mm at Islamabad & highest maximum temperature was recorded as 43.5°C at Noorpur thal.

Sindh

Light rainfall observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 38.1°C & 26.3°C respectively. For the recent week, on average 190.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 62% and wind speed in the morning/evening recorded as 6.4/8.0 Knots. During the previous week the highest amount of rainfall was recorded as 0.02mm at Karachi & highest maximum temperature was recorded as 44.4°C at Dadu.

Khyber Pakhtunkhwa

Light to moderate rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 34.7°C & 21.8°C respectively. For the recent week on average 162.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 0.7/3.0 Knots. During the previous week the highest amount of rainfall was recorded as 38 mm at Malam Jabba & highest maximum temperature was recorded as 42.0°C at Chitral.

Baluchistan

Light rainfall observed in Baluchistan during the Weekly maximum and minimum temperatures recorded as 37.5°C & 23.9°C respectively. For the recent week on average 180.9 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 46% and wind speed in the morning/evening recorded as 2.2/6.1 Knots. During the previous week the highest amount of rainfall was recorded as 10.0 mm Sibbi & highest maximum temperature was recorded as 44.5°C at Dalbadin.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall observed in Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 34.2°C & 18.7°C respectively. For the recent week on average 142.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 51% and wind speed in the morning/evening recorded as 0.8/2.5 Knots. During the previous week the highest amount of rainfall was recorded as 29.2 mm at Garhi Dopatta & highest maximum temperature was recorded as 45.5°C at Chilas.

Past Weather for Major Agricultural Plains (30th July to 5th August, 2018)

Rawalpindi (Potohar region)

Rainfall reported as 17.6 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 4.3/3.6 Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 35.9°C & for the recent week 176.9 growing degree accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/2.0 Knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the cloudiness week: however, no morning/evening recorded while, average relative humidity observed as 64%. Mean day time temperature recorded as 37.5°C & for the recent week 193.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/1.2 Knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness recorded in the morning/evening as 0.3/0.0 Oktas while, average relative humidity observed as 65%. Mean day time temperature recorded as 36.3°C & for the recent week 177.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 7.0/8.1 Knots.

Usta Muhammad (Eastern Baluchistan)

Dry weather reported from Usta Muhammad during week: however. cloudiness morning/evening recorded as 0.3/1.4 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 42.1°C & for the 213.5 recent week growing degree accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/3.7 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.0/0.8 Oktas while, average relative humidity observed as 26%. Mean day time temperature recorded as 34.6°C & for the recent week 149.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.8/3.8 Knots.

Past Weather for Sub-Regional Agricultural Plains (30th July to 5th August, 2018)

Multan

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.0/0.6 Oktas while, average relative humidity observed as 61%. Mean day time temperature recorded as 37.0°C & for the recent week 196.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 15.3/12.0 Knots.

Lahore

Rainfall reported as 1.10 mm from Lahore during week; however, cloudiness morning/evening recorded as 0.0/2.4 Oktas while. average relative humidity observed as 63%. Mean day time temperature recorded as 35.4°C & for the recent week 182.4 growing degree accumulated by the end of last week. Wind speed recorded in the morning/evening 1.3/2.0 Knots.

Zhob

Rainfall reported as 10.00 mm from during the week; however, cloudiness in the morning/evening recorded as 0.0/0.3 Oktas while, average relative humidity observed as 40%. Mean day time temperature recorded as 39.1°C & for the recent week 199.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.8/4.4 Knots.

Murree

Rainfall reported as 2.01 mm from Murree during however, week; cloudiness morning/evening recorded as 3.2/4.9 Oktas while, average relative humidity observed as 79%. Mean day time temperature recorded as 24.3°C & for the growing recent week 107.1 degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/0.6 Knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.5/0.4 Oktas while, average relative humidity observed as 62%. Mean day time temperature recorded as 40.8°C & for the recent week 206.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.7/1.4 Knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.5/2.4 Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 36.9°C & for the recent week 190.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.0/2.0 Knots.

Kalam

Dry weather reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.0/1.6 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 27.9°C & for the recent week 104.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.4 Knots.

Gilgit

Rainfall reported as 0.30 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 1.5/3.7 Oktas while, average relative humidity observed as 51%. Mean day time temperature recorded as 36.5°C & for the recent week 150.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/4.3 Knots.

Skardu

Dry weather reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 0.0/0.8 Oktas while, average relative humidity observed as 26%. Mean day time temperature recorded as 33.6°C & for the recent week 149.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.8/3.8 Knots.

Crop Situation for Major Agricultural Plains (Based on data from Regional Agro met 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; Very Good, Flowering stage completed.

Lower Sindh (Tandojam)

There is presently one crop in the fields of RAMC Tandoiam.

Cotton (CIM 602); Good, Boll opening stage.

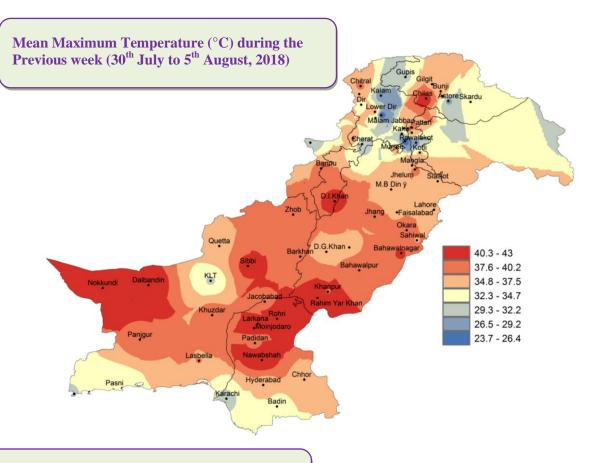
Northern Baluchistan (Quetta)

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

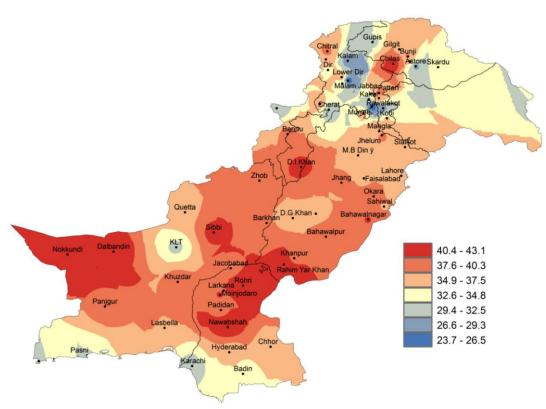
Eastern Baluchistan (Usta Muhammad)

There is presently one crop in the fields of RAMC Usta Muhammad.

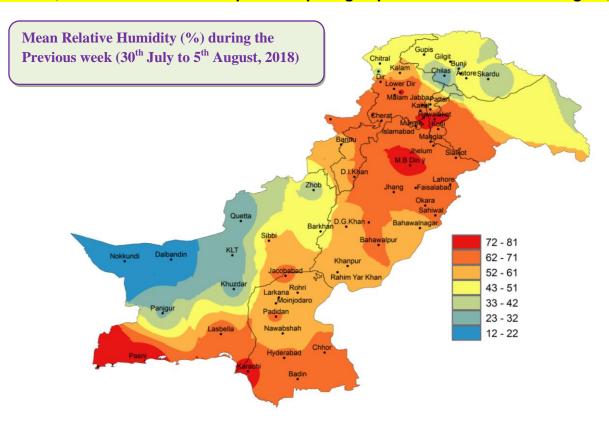
Rice; True leaf stage.



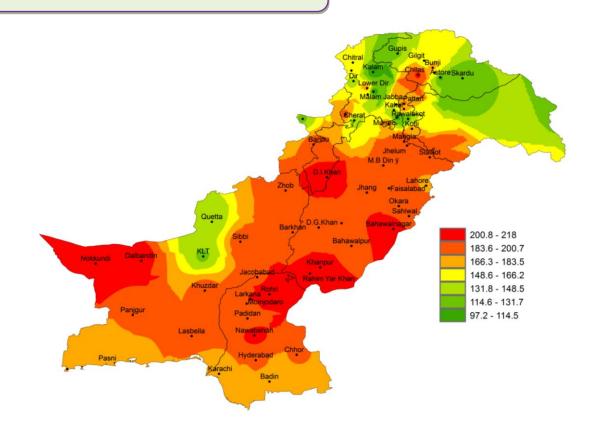
Highest maximum Temperature (°C) during the Previous week (30th July to 5th August, 2018)



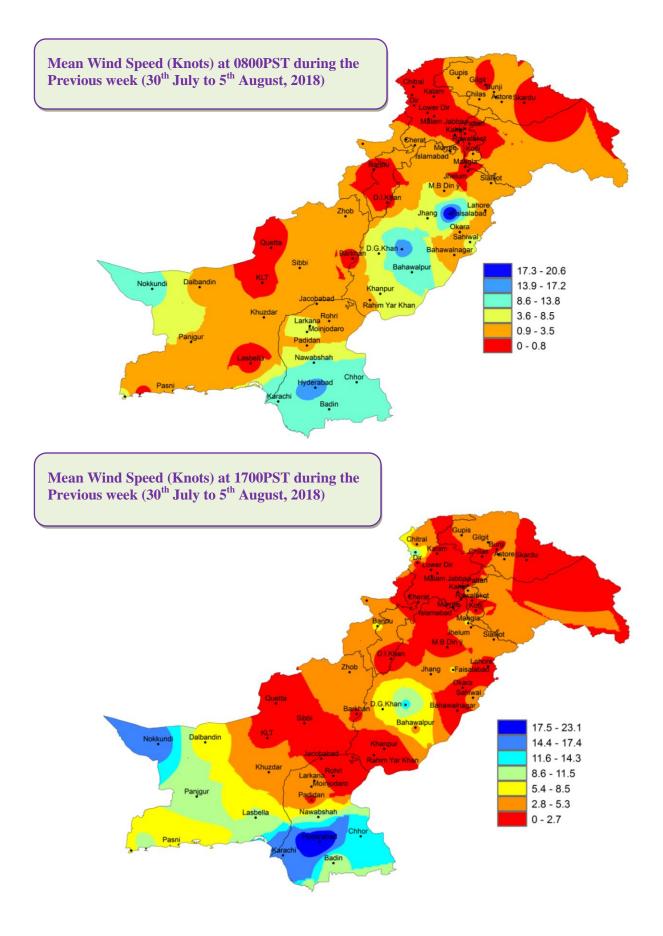
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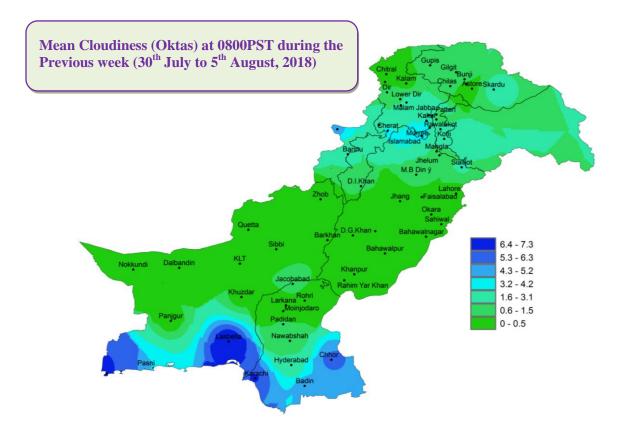
Total Growing Degree Days accumulated during the Previous week (30^{th} July to 5^{th} August, 2018)

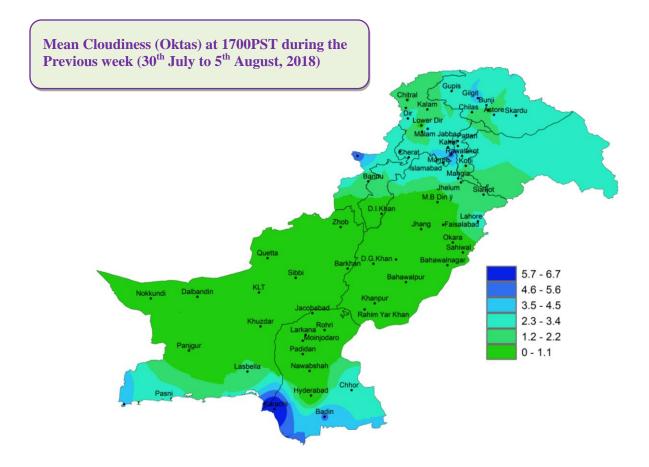


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Weekly Weather Advisory for Farmers (6th August to 12th August, 2018)

Seasonal low lies over northwest Balochistan. Weak monsoon currents are continuously penetrating upper parts of the country and likely to strengthen tonight.

MONDAY 06-08-2018

Rain-thundershower with gusty winds is expected at scattered places in Malakand, Hazara, Rawalpindi, Gujranwala divisions, Islamabad and Kashmir, while at isolated places in Peshawar, Mardan, Lahore divisions and Gilgit-Baltistan. Hot and very humid weather is expected elsewhere in the country.

TUESDAY0 07-08-2018

Rain-thundershower (with isolated heavy falls) accompanied by gusty winds is expected at scattered Hazara, Kohat, Rawalpindi, in Gujranwala, Lahore, Sargodha, Faisalabad divisions, Islamabad and Kashmir. Rain-thundershower with gusty winds is expected at isolated places in Malakand, Peshawar, Mardan, Bannu, D.I.Khan, Zhob, Kalat, Sukkur, Mirpurkhas, Bahawalpur divisions and Gilgit-Baltistan. Hot and very humid weather is expected elsewhere in the country.

WEDNESDAY 08-08-2018

Rain-thundershower (with few moderate to isolated heavy falls) with gusty winds is expected at scattered places in Khyber-Pakhtunkhwa, Punjab, Islamabad, Gilgit-Baltistan and Kashmir, while at isolated places in Mirpurkhas, Zhob. Kalat divisions, Hot and humid weather is expected elsewhere in the country.

THURSDAY 09-08-2018

Mainly hot and humid weather is expected in most However, country. parts of the thundershower with gusty winds is expected at isolated places in Rawalpindi, Gujranwala, Lahore, Zhob divisions, KP, south Punjab, Gilgit-Baltistan, Islamabad and Kashmir.

FRIDAY 10-08-2018.

Rain-thundershower with gusty winds is expected at Hazara, Rawalpindi, scattered places in

Gujranwala divisions, Islamabad and Kashmir, while at isolated places in Malakand, Peshawar, Mardan, Kohat, Lahore divisions and Gilgit-Baltistan. Hot and very humid weather is expected elsewhere in the country.

SATURDAY 11-08-2018

Rain-thundershower with gusty winds is expected at in Hazara, Rawalpindi, places scattered Gujranwala divisions, Islamabad and Kashmir, while at isolated places in Malakand, Peshawar, Mardan, Kohat, Lahore divisions and Gilgit-Baltistan. Hot and very humid weather is expected elsewhere in the country.

SUNDAY 12-08-2018

Mainly hot and humid weather is expected in most the country. However, thundershower with gusty winds is expected at isolated places in Malakand, Hazara, Peshawar, Kohat, Rawalpindi,

Guiranwala, Lahore divisions, Islamabad, Gilgit-Baltistan and Kashmir.

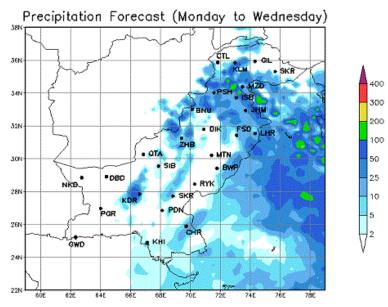
ADVISES FOR FARMERS

During the last week, light to moderate rainfall occurred in upper half of the country while hot and dry weather prevailed in rest parts. This may continue with almost the same pattern in coming days as well. Keeping in view the expected weather conditions following advises are suggested for farming community.

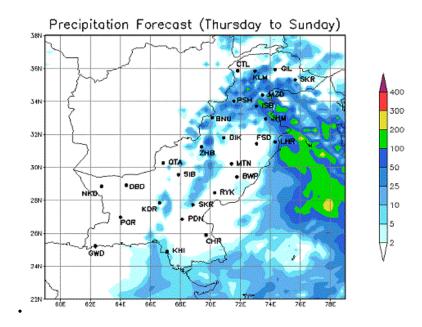
- Farmers of southern Punjab and Sindh are advised to complete the sowing of cotton and other Kharif crops to utilize the maximum soil moisture.
- Farmers of upper regions are advised to complete the cultivation of millet and sorghum in the upper regions because of the moister availability in field.
- Extra water from the fields of Cotton and vegetables should be removed.
- Use pesticides to avoid the attack from pests on the cotton crop as advised by the agriculture department.

Weather Outlook from (6th August to 12th August, 2018)

The outlook from 6th August to 8th August, 2018 shows that light to moderate rainfall is expected in most places of GB & Kashmir, FATA, Punjab, & KP and in scattered places of Sindh and Balochistan.



The outlook from 9th August to 12th August, 2018 shows that light to moderate rainfall is expected in GB, KP, central and lower Punjab, coastal areas of Sindh and northeastern Baluchistan. However, heavy rainfall is expected in Kashmir and Potohar region.



National Weather Data of Selected Cities (Weekly Data from 30thJuly to 5thAugust, 2018)

Stations	Maximum/Night time Temperature (°C)		Growing Degree Days	Relative Humidity (%)	Rainfall (mm)	Cloudiness (Oktas) 0800	Cloudiness (Oktas) 1700	Wind Speed (Knots)	Wind Speed (Knots)
	Mean	highest				PST	PST	0800 PST	1700 PST
Astore	27.9	28.1	0.01	108.3	0.3	2.7	1.7	4.0	43
Badin	33.7	33.7	0.00	174.0	4.7	4.6	9.3	8.7	69
Bahawalnagar	40.5	40.4	0.00	209.0	0.0	0.9	2.0	0.9	53
Bahawalpur	39.1	39.0	0.00	197.9	0.0	0.1	10.0	5.1	61
Balakot	34.3	34.3	3.00	160.1	3.0	2.1	0.3	1.1	62
Bannu	38.3	38.2	0.00	194.5	1.5	1.7	0.0	5.4	60
Barkhan	37.6	37.6	0.00	188.8	0.0	0.3	0.0	2.6	46
Bunji	37.5	37.9	0.01	172.3	1.2	3.3	1.7	1.1	37
Cherat	30.1	30.2	12.00	136.0	3.3	3.0	2.0	2.3	67
Chhor	36.2	36.2	0.00	184.2	5.5	3.3	10.0	12.9	63
Chilas	41.4	41.7	0.00	203.3	0.5	2.1	2.3	2.0	24
Chitral	37.7	37.9	0.00	163.9	0.0	1.0	0.0	3.1	48
D.I.Khan	40.8	40.8	0.00	206.5	0.5	0.4	0.7	1.4	62
Dalbandin	42.4	42.6	0.00	206.0	0.0	0.3	2.7	7.1	17
DG.Khan	36.9	36.9	0.00	192.2	0.0	0.4	7.0	5.4	60
Dir	33.6	33.7	24.00	139.8	1.2	3.4	0.0	1.7	69
Drosh	37.5	37.5	0.00	166.8	0.0	2.1	0.0	12.3	38
Faisalabad	37.5	38.0	0.00	193.8	0.0	0.0	1.1	1.2	64
Garidopatta	36.6	36.9	29.20	170.6	1.3	3.3	0.7	4.0	62
Gawader	33.4	33.3	0.00	173.8	6.0	3.0	0.0	8.9	74
Gilgit	36.5	36.8	0.30	150.1	1.5	3.7	0.0	4.3	51
Gupis	31.5	31.7	2.00	129.5	1.0	2.6	1.3	2.9	44
Hyderabad	36.0	35.9	0.00	185.4	2.0	0.3	15.7	23.1	64

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Islamabad	36.6	36.6	43.80	184.7	3.3	2.9	2.3	1.1	67
Jacobabad	39.6	39.6	0.00	199.3	1.0	0.6	1.3	1.4	63
Jhang	37.7	37.8	0.00	197.2	0.0	0.3	4.7	3.4	63
Jhelum	37.8	37.8	0.41	193.5	0.7	1.9	0.7	2.6	66
Jiwani	31.9	31.8	0.00	168.8	6.8	4.1	4.3	8.3	80
Kakul	31.1	31.2	3.00	142.7	3.2	3.0	0.3	1.7	66
Kalam	27.9	28.0	0.00	104.5	0.0	1.6	0.0	1.4	57
Kalat	32.0	32.0	0.00	129.0	0.0	0.0	0.0	2.6	28
Karachi	31.7	31.6	0.02	170.2	6.3	6.7	13.3	16.0	72
Khanpur	40.2	40.0	0.00	201.8	0.0	0.6	6.0	0.9	60
Khuzdar	38.9	38.9	0.00	195.3	0.0	0.9	2.0	3.7	30
Kotli	35.1	35.2	0.00	176.1	2.5	2.1	1.0	2.3	66
Lahore	35.4	35.4	1.10	182.4	0.0	2.4	1.3	2.0	63
Larkana	40.4	40.3	0.00	201.5	0.0	0.3	3.7	3.7	58
Lasbella	37.5	37.4	0.00	188.3	7.3	1.1	0.0	8.6	67
Lower Dir	37.4	37.5	0.00	179.3	1.0	0.6	0.7	2.0	61
M.B Din	37.0	37.0	0.00	187.7	0.8	0.4	1.0	1.1	76
Malam Jabba	23.4	23.5	38.00	95.8	2.8	3.7	0.3	2.9	73
Mangla	37.2	37.3	3.30	189.5	1.5	2.4	0.7	6.0	64
Mir Khani	35.7	35.7	0.00	166.1	0.0	0.4	1.5	4.1	48
Moinjodaro	40.4	40.3	0.00	197.0	0.0	0.0	4.7	5.1	59
Multan	37.0	36.9	0.00	196.7	0.0	0.6	15.3	12.0	61
Murree	24.3	24.4	2.01	107.1	3.2	4.9	0.7	0.6	79
Muzaffarabad	35.8	35.8	13.20	166.2	3.0	2.6	0.3	1.6	64
Nawabshah	42.4	42.3	0.00	206.5	0.8	0.4	9.3	11.1	54
Nokkundi	43.0	43.1	0.00	218.0	0.0	0.7	10.0	16.0	12

Volume 18,	No. 31		http://	<mark>/namc.pm</mark>	<mark>ıd.gov.p</mark> l	k		August,	<mark>201</mark> 8
Okara	38.1	38.2	6.00	196.3	0.0	0.6	0.7	0.3	65
Padidan	39.8	39.7	0.00	190.5	0.7	0.6	2.0	2.0	62
Panjgur	39.3	39.3	0.00	187.0	0.0	0.0	3.3	9.4	31
Parachinar	29.6	29.6	17.00	129.5	4.5	4.7	3.0	3.0	62
Pasni	32.4	32.3	0.00	171.3	4.2	2.4	1.3	6.9	81
Pattan	38.4	38.5	1.00	189.0	0.8	3.1	0.0	2.6	52
Peshawar	36.9	36.9	0.00	190.0	2.5	2.4	1.0	2.0	69
Quetta	36.9	36.0	0.00	149.8	0.0	0.0	1.8	3.8	26
R.Y.Khan	41.7	41.7	0.00	205.3	0.0	0.0	2.0	2.0	56
Rawalakot	27.8	27.9	0.01	124.0	2.0	3.0	0.0	2.6	79
Rawalpindi	41.9	41.8	0.00	204.8	0.0	0.0	1.7	1.1	56
Rohri	37.4	37.4	4.00	193.6	0.0	0.6	4.7	4.6	63
Sahiwal	34.6	34.7	0.00	158.0	1.5	1.4	0.0	0.0	63
Saidu Sharif	35.8	36.0	3.53	184.0	1.7	1.7	3.3	5.1	63
Sialkot	41.3	41.3	0.00	197.3	0.0	0.0	3.3	2.6	52
Sibbi	33.6	34.1	0.00	130.0	2.2	3.1	0.0	0.3	40
Skardu	39.1	39.2	10.00	199.8	0.0	0.3	1.8	4.4	40
Tandojam	35.9	38.0	17.60	176.9	4.3	3.6	1.1	2.0	69
Zhob	36.3	37.5	0.00	177.5	0.3	0.0	7.0	8.1	65
Usta.M	34.6	36.0	0.00	149.8	0.0	0.8	1.8	3.8	26

^{***} 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 69-2040 کے دوران درجہ حرارت میں قابل ذکراضافہ ہوسکتا ہے۔ جو کہ دن کے وقت 2.8° دوران درجہ حرارت میں قابل ذکراضافہ ہوسکتا ہے۔ جو کہ دن کے وقت 2.8° دوران درجہ حرارت میں قابل ذکراضافہ ہوسکتا ہے۔ جو کہ دن کے وقت 2.8° دوران درجہ حرارت میں
 - 2۔ گرمیوں کی بارش میں 25 فیصد اضا فہ اور سردیوں کی بارش میں 12 فیصد تک کمی کا امرکان ہے۔
 - 3۔ مندرجہ بالاموتی تغیرات کی وجہ سے دھان کی پیداوار میں 17 فیصد اور گندم کی پیداوار میں 14 فیصد تک کمی ہوسکتی ہے۔
 - 4۔ اگرموسی تغیرات کامناسب بندوبست نہ کیا گیا۔ تو کسانوں کی اکثریت کومعاشی نقصان کا سامنا کرنا پڑے گا۔
- 5۔ موتم تغیرات کے سدّیاب (بذریعیذی ٹیکنالوجی کااستعال اور بہترنظم ونسق) ہے غربت میں کمی اور کسانوں کی زندگی میں خوشحالی لائی جاسکتی ہے۔

(ایگمپ یا کتان 2012-2014)