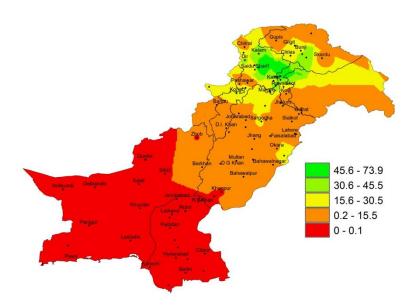
Weekly Weather and Crop Bulletin for Pakistan

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

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> Rainfall Distribution (mm) during the Previous Week (17th April to 23rd 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	
		1

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Highlights of Past Weather (from 17th April to 23rd 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 Punjab, Khyber Pakhtunkhwa (KP), Gilgit-Baltistan (GB) and Kashmir.
- Light rainfall reported from isolated place of northeastern Balochistan.
- Dry weather was reported from Sindh.

Past Weather of Provinces (from 17thApril to 23rd **April, 2017**)

Punjab

Light to moderate rainfall reported from most parts of Punjab during the week. Weekly maximum and minimum temperatures recorded as 39.7°C & 23.4°C respectively. For the recent week on average 186.0 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 40% and wind speed in the morning/evening recorded as 2.8/3.7 Knots. During the previous week the highest amount of rainfall was recorded as 39.3 mm at Murree & highest maximum temperature was recorded as 47.0°C at Rahim Yar Khan.

Sindh

Dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 41.8°C & 24.3°C respectively. For the recent week, on average 197.0 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 4.8/6.6 Knots. During the previous week the highest maximum temperature was recorded as 50.0°C at Larkana.

Khyber Pakhtunkhwa

Light to moderate rainfall reported from most of the places of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 32.2°C & 16.6°C respectively. For the recent week on average 135.7 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 1.2/3.2 Knots. During the previous weekthe highest amount of rainfall was recorded as 75.0 mm at Malam Jabba & highest maximum temperature was recorded as 45.0°C at D.I.Khan.

Balochistan

Light rainfall reported from isolated place of northeastern Balochistan during the week. Weekly maximum and minimum temperatures recorded as 37.0°C & 21.0°C respectively. For the recent week on average 167.2 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 1.5/6.9 Knots. During the previous week the highest amount of rainfall was recorded as 3.0 mm at Barkhan & highest maximum temperature was recorded as 48.0°C at Sibbi.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall reported from many places of Gilgit-Baltistan & Kashmir during the week. Weekly maximum minimum and temperatures recorded as 26.9°C & 12.6°C respectively. For the recent week on average 103.5 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 1.3/1.4 Knots. During the previous week the highest amount of rainfall was recorded as 49.0mm at Muzaffarabad & highest maximum temperature was recorded as 38.3°C at Kotli.

Past Weather for Major Agricultural Plains (from 17th April to 23rd April, 2017)

Rawalpindi (Potohar region)

Rainfall reported as 17.9 mm fromRawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.6/3.3 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 37.1°C & for the week 170.6 growing degree accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/1.1 Knots.

Faisalabad (Central Punjab)

Rainfall reported as 10.2 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.4/3.0 Oktas while, average relative humidity observed as 44%. Mean day time temperature recorded as 40.7°C & for the recent week 192.4 growing de gree accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/1.4 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 52%. Mean day time temperature recorded as 40.4°C & for the recent week 181.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/3.7 Knots.

Usta Muhammad (Eastern Balochistan)

Dry weather reported from Usta Muhammad during week: however. cloudiness in the the morning/evening recorded 0.9/0.0 Oktas while, average relative humidity observed as 36%. Mean day time temperature recorded as 46.7°C & for the week 194.2 growing de gree accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/5.7 Knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.7/1.9 Oktas while, average relative humidity observed as 20%. Mean day time temperature recorded as 29.8°C at the end of last week. Wind speed recorded in the morning/evening as 1.2/3.1 Knots.

Past Weather for Sub-Regional Agricultural Plains (from 17th April to 23rd April, 2017)

Multan

Rainfall reported as 5.8 mm from Multan during the week; however, cloudiness in the morning/evening recorded as 1.0/1.9 Oktas while, average relative humidity observed as 31%. Mean day time temperature recorded as 41.2°C & for the recent week 201.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 6.9/8.6 Knots.

Lahore

Rainfall reported as 11.02 mm from Lahore during however, week; cloudiness morning/evening recorded as 1.7/2.1 Oktas while, average relative humidity observed as 35%. Mean day time temperature recorded as 39.6°C & for the recent week 195.0 growing de gree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/2.9 Knots.

Rainfall reported as 0.01 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.7/2.9 Oktas while, average relative humidity observed as 21%. Mean day time temperature recorded as 34.1°C & for the recent week156.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.6/16.7 Knots.

Murree

Rainfall reported as 39.3 mm from Murree during however. week: cloudiness morning/evening recorded as 2.9/3.4 Oktas while, average relative humidity observed as 48%. Mean day time temperature recorded as 24.8°C by the end of last week. Wind speed recorded in the morning/evening as 0.6/0.6 K nots.

D.I. Khan

Rainfall reported as 8.01 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 2.1/3.3 Oktas while, average relative humidity observed as 49%. Mean day time temperature recorded as 41.7°C & for the recent week 194.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.9/2.6 K nots.

Peshawar

Rainfall reported as 14.02 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 1.7/5.6 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 37.1°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 1.1/2.9 K nots.

Kalam

Rainfall reported as 43.02 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.4/5.4 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 22.6°C & for the recent week 68.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/5.1 Knots.

Gilgit

Rainfall reported as 16.41 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 5.0/5.4 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 26.1°C & for the recent week 99.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.7 K nots.

Skardu

Rainfall reported as 7.01 mm from Skardu during the week; however, cloudiness in the morning/evening recorded as 5.3/5.4 Oktas while, average relative humidity observed as 56%. Mean day time temperature recorded as 20.6°C & for the recent week 64.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.9 Knots.

<u>Crop Situation for Major Agricultural Plains</u> (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, *Maturity* stage completed.

Lower Sindh (Tandojam)

Land has been prepared for new crop.

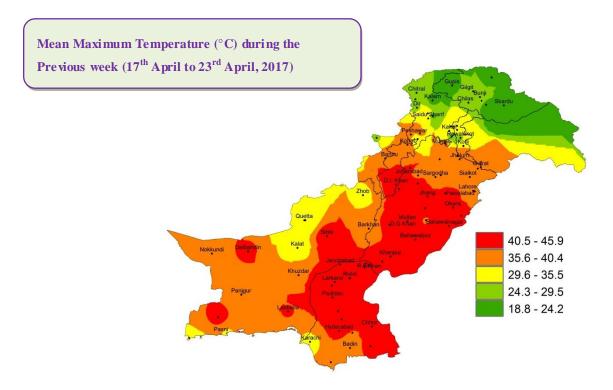
Northern Balochistan (Quetta)

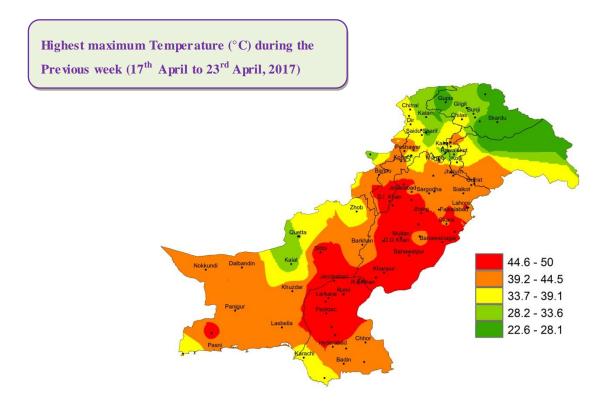
There is presently one crop (irrigated conditions) grown in the fields of RAMC Quetta.

Wheat(Local white): Good condition, *Milk Maturity* stage.

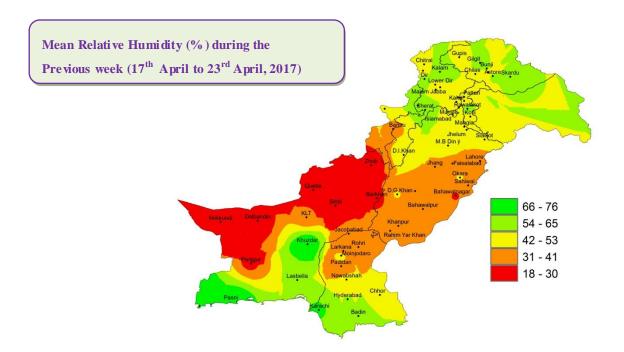
Eastern Balochistan (Usta Muhammad)

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

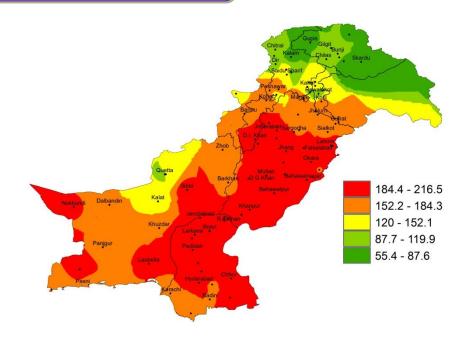




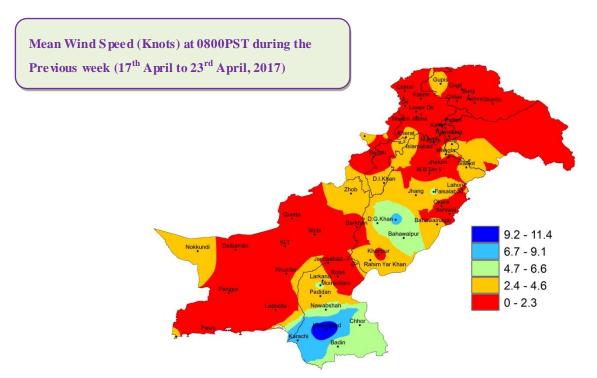
Page 5 of 14

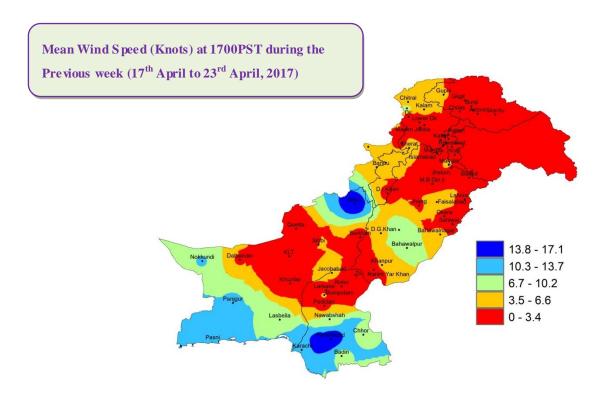


Total Growing Degree Days accumulated during the Previous week (17th April to 23rd April, 2017)

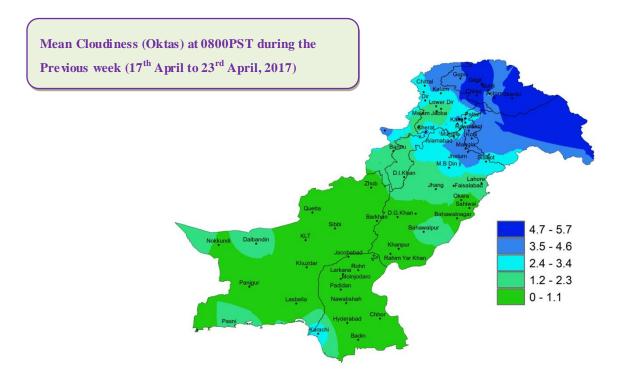


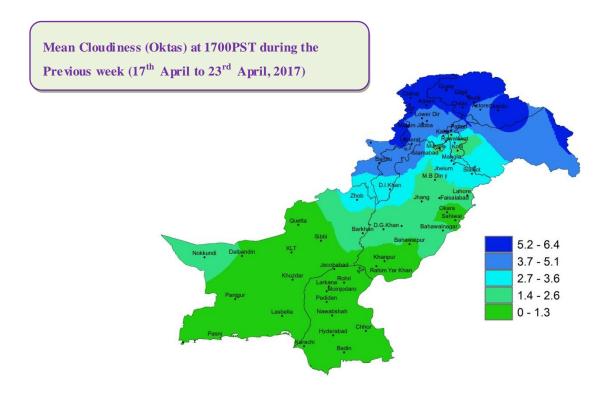
Page 6 of 14





Page 7 of 14





Page 8 of 14

Weekly Weather Advisory for Farmers (from 25th April to 1st May, 2017)

A shallow westerly wave is prevailing over Pakistan and likely to persist in upper parts of county till tonight. Continental air would prevail over most parts of Pakistan from Tuesday. A shallow westerly wave is likely to affect upper parts of the country during weekend (Saturday/Sunday).

TUESDAY 25-04-2017

Dust-thunderstorm/rain (associated with gusty winds / few hailstorms) is expected at scattered places in upper KP (Malakand, Hazara, Peshawar, Mardan divisions), Islamabad, upper Punjab (Rawalpindi, Gujranwala divisions), upper FATA, Kashmir and Gilgit-Baltistan. Hot and dry weather is expected elsewhere in the country.

WEDNESDAY 26-04-2017

Mainly hot and dry weather is expected in most parts of the country. However, light rainthunderstorm is expected at few places in Malakand division, Kashmir and Gilgit-Baltistan.

THURSDAY 27-04-2017

Mainly hot and dry weather is expected in most parts of the country. However, light rainthunderstorm is expected at few places in Gilgit-Baltistan.

FRIDAY 28-04-2017

Mainly hot and dry weather is expected in most parts of the country. However, light rainthunderstorm is expected at isolated places in Malakand division, upper FATA, Kashmir and Gilgit-Baltistan.

SATURDAY 29-04-2017

Mainly hot and dry weather is expected in most parts of the country. However, light rainthunderstorm is expected at isolated places in Rawalpindi, Malakand. Hazara. Gujranwala divisions, Islamabad, upper FATA, Kashmir and Gilgit-Baltistan.

SUNDAY 30-04-2017

Mainly hot and dry weather is expected in most parts of the country. However, light rainthunderstorm is expected at isolated places in Rawalpindi, Malakand, Hazara, Gujranwala divisions, Islamabad, upper FATA, Kashmir and Gilgit-Baltistan.

MONDAY 01-05-2017

Mainly hot and dry weather is expected over most parts of the country. However, rain-thunderstorm is expected at isolated places in Kashmir.

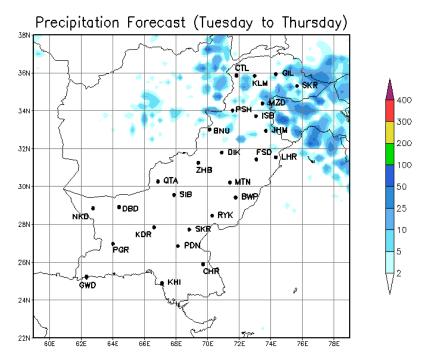
ADVISES FOR FARMERS

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.

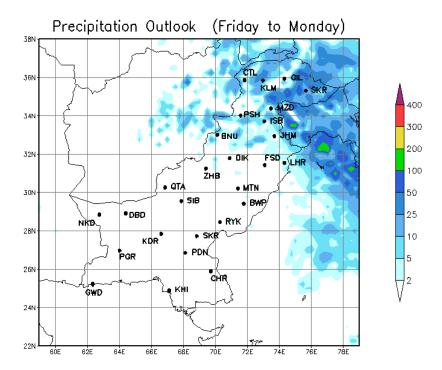
- Farmers of Punjab and southern KP may schedule theharvesting of wheat crop in accordance with the prevailing weather conditions.
- Farmers of irrigated areas may irrigate the rest of crops as per requirement in accordance with the expected weather conditions.

Weather Outlook from 25thApril to 1st May, 2017

The forecast from 25th to 27th April, 2017 shows that dry weather is expected in most parts of the country. However, light rainfall is expected at particular places in upper KP, GB and Kashmir.



The outlook from 28thApril to 1st May, 2017 shows that light to moderate rainfall is expected in particular places in KP, GB, Kashmir and northern Punjab. However, dry weather may prevail in rest of the country.



Page 10 of 14

National Weather Data of Selected Cities (Weekly Data fromto 17thApril to 23rd April, 2017)

Stations	Maximum/Night timeTemperature (°C)		Growing Degree Days	Relative Humi dity (%)	Rainfall (mm)	Cloudiness (Oktas) 0800	Cloudiness (Oktas) 1700	Wind Speed (Knots)	Wind Speed (Knots)
	Mean	highest				PST	PST	Speed	1700 PST
Astore	18.6	22.5	54.8	56	39.50	5.0	5.1	2.0	1.7
Badin	38.9	41.0	183.5	55	0.00	0.4	0.0	4.9	9.1
Bahawalnagar	43.0	46.0	203.5	29	0.02	1.1	2.0	2.6	4.0
Bahawalpur	42.6	46.0	199.7	35	6.20	1.3	1.1	5.4	8.0
Balakot	32.4	36.0	140.4	47	33.50	4.0	5.0	0.0	2.3
Bannu	39.9	44.0	170.6	39	8.00	1.6	3.9	0.9	4.3
Barkhan	36.1	39.5	171.8	26	3.00	0.7	2.0	0.9	1.3
Bunji	25.8	32.8	109.0	58	20.70	5.3	6.0	1.1	1.1
Cherat	29.1	32.5	132.8	59	22.00	3.6	4.7	4.6	4.9
Chhor	41.6	43.6	196.3	51	0.00	0.6	0.0	6.0	9.4
Chilas	27.6	35.0	115.0	51	26.80	5.7	5.6	2.0	1.4
Chitral	27.9	33.6	106.7	52	7.81	3.4	6.3	1.1	4.3
D.G.Khan	42.6	47.0	200.6	42	5.00	0.7	1.7	4.9	5.7
D.I.Khan	41.7	45.0	194.5	49	8.01	2.1	3.3	2.9	2.6
Dalbandin	40.9	43.5	158.3	20	0.00	1.4	1.3	0.3	3.1
Dir	28.9	35.0	102.5	58	32.00	2.4	5.3	0.0	1.7
Drosh	28.4	35.0	112.2	45	23.50	3.4	5.6	0.0	8.3
Faisalabad	40.7	44.0	192.4	44	10.20	1.4	3.0	2.0	1.4
Garidopatta	35.2	38.0	139.7	45	29.00	2.7	1.9	0.0	0.0
Gawader	35.3	37.0	161.3	70	0.00	1.1	0.5	0.0	11.0
Gilgit	26.1	32.5	99.3	55	16.41	5.0	5.4	0.0	1.7
Gupis	22.6	26.5	76.0	50	4.00	4.4	6.4	2.9	3.7

Volume	2 17, No.	18	h	ttp://nan	namc.pmd.gov.pk April, 2		<mark>\pril, 201</mark> 7	<mark>2017</mark>	
Hyderabad	41.0	44.0	191.5	54	0.00	0.1	0.0	11.4	17.1
Islamabad	36.0	38.5	159.6	48	21.62	3.4	2.3	0.0	0.3
Jacobabad	43.9	47.5	209.3	33	0.00	0.6	0.9	2.3	4.6
Jhang	41.3	44.7	194.5	41	6.20	1.1	2.4	2.3	3.1
Jhelum	38.6	42.0	178.0	46	2.02	3.6	3.1	1.1	1.1
Jiwani	34.2	37.0	170.8	69	0.00	0.0	0.0	3.1	11.7
Kakul	31.2	34.0	124.4	53	26.00	3.1	3.1	0.0	1.1
Kalam	22.6	29.0	68.8	64	43.20	3.4	5.4	1.4	5.1
Karachi	34.5	37.0	175.8	66	0.00	2.9	0.9	8.0	13.4
Khanpur	43.3	46.5	203.5	36	0.00	0.6	0.7	1.7	3.7
Khuzdar	39.4	41.0	182.8	77	0.00	0.6	0.3	2.0	1.4
Kalat	31.3	32.0	126.5	33	0.00	0.7	0.0	1.1	0.0
Kotli	35.6	38.3	166.7	45	4.01	4.0	2.0	4.0	1.1
Lahore	39.6	43.8	195.0	35	11.02	1.7	2.1	2.3	2.9
Larkana	45.4	50.0	215.7	32	0.00	0.4	0.9	3.4	2.6
Lasbella	40.6	43.5	188.0	55	0.00	0.4	0.0	0.0	8.7
Lower Dir	35.4	40.0	156.3	51	27.00	2.4	4.4	1.4	1.4
M.B Din	38.9	43.0	182.1	49	7.00	2.6	2.3	1.1	0.9
MalamJabba	21.3	24.0	78.5	50	75.00	1.6	3.7	0.3	0.3
Mangla	37.8	41.0	175.4	42	3.43	4.3	3.4	3.1	5.1
Mir Khani	30.7	33.0	106.9	41	40.00	2.9	4.3	0.6	2.6
Moinjodaro	42.9	48.5	196.4	47	0.00	0.0	0.7	5.4	3.7
Multan(PBO)	41.2	45.2	201.2	31	5.80	1.0	1.9	6.9	8.6
Murree	24.8	28.3	105.0	48	39.30	2.9	3.4	0.6	0.6
Muzaffarabad	34.0	37.4	136.6	50	49.00	2.1	3.6	0.3	1.4
Nawabshah	44.1	48.0	203.8	42	0.00	0.0	0.0	5.7	8.8

Volume	17, No.	18	h	ttp://nan	<mark>nc.pmd.g</mark>	ov.pk	Δ	April, 2017	
Nokkundi	39.6	43.0	188.5	18	0.00	1.1	1.8	4.3	10.3
Okara	40.8	44.5	190.5	42	14.00	0.9	0.4	1.4	2.0
Padidan	43.9	48.0	204.0	37	0.00	0.3	0.5	2.3	2.0
Panjgur	37.4	40.0	173.3	28	0.00	0.0	0.3	1.7	10.9
Parachinar	28.9	31.0	122.0	47	23.01	3.9	5.1	3.0	4.0
Pasni	34.9	39.5	170.3	76	0.00	2.0	0.0	0.3	12.1
Pattan	31.4	41.0	135.5	42	71.00	3.7	5.6	2.0	1.4
Peshawar	37.1	40.5	168.8	55	14.02	1.7	5.6	1.1	2.9
Quetta	29.8	32.3	123.9	20	0.00	0.7	1.9	1.2	3.1
Rahim Yar Khan	43.6	47.0	206.3	39	0.00	0.0	0.3	3.7	2.3
Rawalakot	28.1	32.0	97.0	62	21.82	4.4	2.9	0.0	0.9
Rawalpindi	37.1	39.5	170.6	48	17.90	2.6	3.3	0.9	1.1
Rohri	42.9	46.0	213.3	37	0.00	0.0	0.0	0.0	0.3
Sahiwal	40.8	44.8	183.3	39	29.00	1.0	0.9	2.0	2.6
Saidu Sharif	32.0	35.7	139.1	52	19.01	1.3	4.6	0.6	1.7
Sialkot	38.0	42.0	176.8	47	8.61	3.3	3.6	2.6	3.4
Sibbi	45.9	48.0	216.5	19	0.00	0.3	1.1	1.4	3.4
Skardu	20.6	24.8	64.2	56	7.01	5.3	5.4	0.0	0.9
Tandojam	40.4	44.5	181.8	52	0.00	0.0	0.0	1.1	3.7
Usta.M	46.7	48.5	194.2	36	0.00	0.9	0.0	1.4	5.7

^{***} Shows that data was not available.

Zhob

34.1

37.0

156.8

21

0.01

0.7

2.9

16.7

3.6

Findings of AgMIPPakistan, University of Agriculture, Faisalabad

- There would be significant increase in temperature i.e., 2.8°C in day and 2.2°C in the 1. night during mid-century (2040-2069)
- There would be significant variability in rainfall patterns (about 25% increase in 2. summer & 12% decrease in winter during 2040-2069)
- Climate Change will affect the crop yields negatively (about 17% for rice and 14 % for 3. wheat)
- If there will be no adaptation to Climate Change, majority of farmers would be the 4. economic losers
- With Adaptation to Climate Change (through technology and management), there 5. 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 كيدوران درجة حرارت مين قابل ذكراضافيه بوسكتا بي جوكددن كيوقت 2.8° دوران درجة حرارت مين قابل ذكراضافيه بوسكتا بي جوكددن كيوقت 2.8° دوران درجة حرارت مين
 - 2۔ گرمیوں کی بارش میں 25 فیصد اضا فداور سر دیوں کی بارش میں 12 فیصد تک کمی کا امکان 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۔ موتی تغیرات کے سدّیاب (بذریعینی ٹیکنالوجی کا استعال اور بہترنظم ونسق) سے غربت میں کمی اور کسانوں کی زندگی میں خوشحالی لائی جاسکتی ہے۔

(ایکمپ یا کتان 2012-2014)