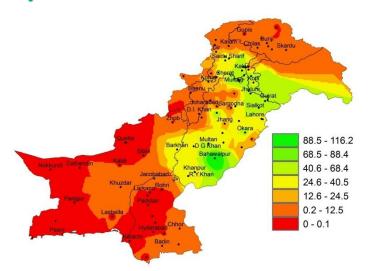
# Weekly Weather and Crop Bulletin for Pakistan

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

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> Rainfall Distribution (mm) during the **Previous Week (from 19<sup>th</sup> June to 25<sup>th</sup> June, 2017)**



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

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

Editor: Dr. Dildar Kazmi (Meteorologist)

# Highlights of Past Weather (from 19<sup>th</sup>June to 25<sup>th</sup> 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 the places in upper half of the country. However a few places in Punjab also received heavy spells.
- Light rainfall was recorded at a few places in Sindh province.
- Light to moderate rainfall was recorded from two places in Balochistan province.

# Past Weather of Provinces (from 19<sup>th</sup>June to 25<sup>th</sup> June, 2017)

## **Punjab**

Light to moderate rainfall, with a few heavy spells, reported from most places of Punjab during the week. Weekly maximum and minimum temperatures recorded as 36.1°C & 24.9°C respectively. For the recent week on average 178.5 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 61% and wind speed in the morning/evening recorded as 2.1/3.1 knots. During the previous week the highest amount of rainfall was recorded as 116.3 mm at Bahawalpur & highest maximum temperature was recorded as 45.0°C at Bhakkar.

#### **Balochistan**

Light to moderate rainfall was recorded from two places (Barkhan and Khuzdar) in Balochistan province during the week. Weekly maximum and minimum temperatures recorded as 39.3°C & 25.5°C respectively. For the recent week on average 186.0 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 48% and wind speed in the morning/evening recorded as 1.7/5.9 knots. During the previous week the highest amount of rainfall was recorded as 38.5mm at Barkhan & highest maximum temperature was recorded as 49.0°C at Nokkandi.

#### Khyber Pakhtunkhwa

Light to moderate rainfall reported from most part of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 34.2°C & 21.5°C respectively. For the recent week on average 160.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 55% and wind speed in the morning/evening recorded as 0.8/4.2 knots. During the previous week the highest amount of rainfall was recorded as 64.2 mm at Balakot & highest maximum temperature was recorded as 43.0°C at Bannu.

## 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 31.6°C & 18.6°C respectively. For the recent week on average 139.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 49% and wind speed in the morning/evening recorded as 0.9/2.3 knots. During the previous week the highest amount of rainfall was recorded as 61.8 mm at Rawalakot & highest maximum temperature was recorded as 43.5°C at Chilas.

#### Sindh

Mainly dry weather reported from Sindh during the week. Weekly maximum and minimum temperatures recorded as 40.1°C & 28.5°C respectively. For the recent week, on average 201.9 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 5.8/7.1 knots. During the previous week the highest amount of rainfall was recorded as 9.2 mm at Jacobabad, highest maximum temperature was recorded as 46.5°C at Dadu.

# Past Weather for Major Agricultural Plains (from 19<sup>th</sup>June to 25<sup>th</sup> June, 2017)

### Rawalpindi (Potohar region)

Rainfall reported as 49.8mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 3.2/4.0 Oktas while, average relative humidity observed as 75%. Mean day time temperature recorded as 34.1°C & for the week recent 164.8 growing degree accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.4/1.4 Knots.

#### Faisalabad (Central Punjab)

Rainfall reported as 26.0 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.3/2.1 Oktas while, average relative humidity observed as 59%. Mean day time temperature recorded as 37.4°C & for the week 186.1 growing degree recent accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.6/2.3 knots.

#### Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 1.1/2.0 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 39.1°C & for the recent week 194.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.5/4.6 knots.

#### **Usta Muhammad (Eastern Balochistan)**

Dry weather reported from Usta Muhammad during week: however, cloudiness morning/evening recorded 1.3/1.7 Oktas while, average relative humidity observed as 30%. Mean day time temperature recorded as 43.7°C & for the week growing 221.3 degree accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/3.4 knots.

#### **Quetta (Northern Baluchistan)**

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.6/2.9 Oktas while, average relative humidity observed as 26%. Mean day time temperature recorded as 36.1°C & for the recent week 165.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.3/4.4 Knots.

# Past Weather for Sub-Regional Agricultural Plains (from 19<sup>th</sup>June to 25<sup>th</sup> June, 2017)

#### Multan

Rainfall reported as 41.01 mm from Multan during however. cloudiness morning/evening recorded as 3.6/2.3 Oktas while, average relative humidity observed as 52%. Mean day time temperature recorded as 36.5°C & for the recent week 186.7 growing degree accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.3/8.0 knots.

#### Lahore

Rainfall reported as 40.61 mm from Lahore during week; however, cloudiness morning/evening recorded as 2.7/3.2 Oktas while, average relative humidity observed as 63%. Mean day time temperature recorded as 34.9°C & for the recent week 174.3 growing degree accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/2.0 knots.

#### Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 1.1/2.3 Oktas while, average relative humidity observed as 55%. Mean day time temperature recorded as 37.0°C & for the recent week 166.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/6.7 knots.

#### Murree

Rainfall reported as 69.10 mm from Murree during week: however. cloudiness the morning/evening recorded as 5.4/5.7 Oktas while, average relative humidity observed as 75%. Mean day time temperature recorded as 21.9°C & for the recent week 92.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/0.3 knots.

#### D.I. Khan

Rainfall reported as 0.01 mm from D.I.Khan during the week; however, cloudiness in the morning/evening recorded as 0.4/1.5 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded as 39.8°C & for the recent week 193.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/3.8 knots.

#### **Peshawar**

Rainfall reported as 4.0 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 3.0/3.0 Oktas while, average relative humidity observed as 56%. Mean day time temperature recorded as 37.0°C & for the recent week 186.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/4.7 knots.

#### Kalam

Rainfall reported as 4.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 4.3/4.2 Oktas while, average relative humidity observed as 61%. Mean day time temperature recorded as 26.6°C & for the recent week 105.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/3.7 knots.

### Gilgit

Rainfall reported as 4.41 mm from Gigit during the week; However, cloudiness in the morning/evening recorded as 2.9/5.8 Oktas while, average relative humidity observed as 43%. Mean day time temperature recorded as 35.1°C& for the recent week 150.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/4.0 knots.

#### Skardus

Rainfall reported as 4.61 mm from Skardu during the week; However, cloudiness in the morning/evening recorded as 3.1/4.7 Oktas while, average relative humidity observed as 40%. Mean day time temperature recorded as 29.4°C & for the recent week 112.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.5 knots.

# <u>Crop Situation for Major Agricultural Plains</u> (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, Budding.

#### Lower Sindh (Tandojam)

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

Cotton (HH-906): Good condition, flowering Stage.

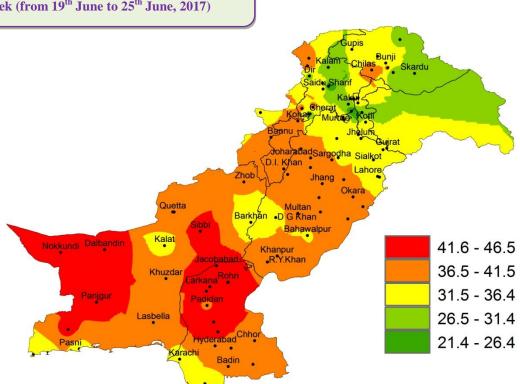
#### Northern Baluchistan (Quetta)

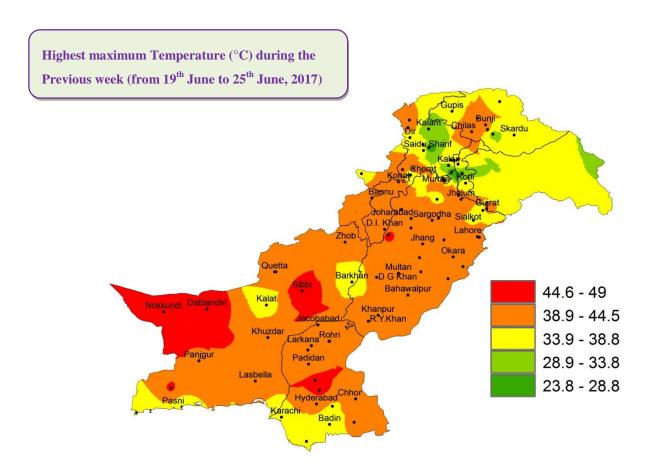
There is presently no crop grown in the fields of RAMC Quetta.

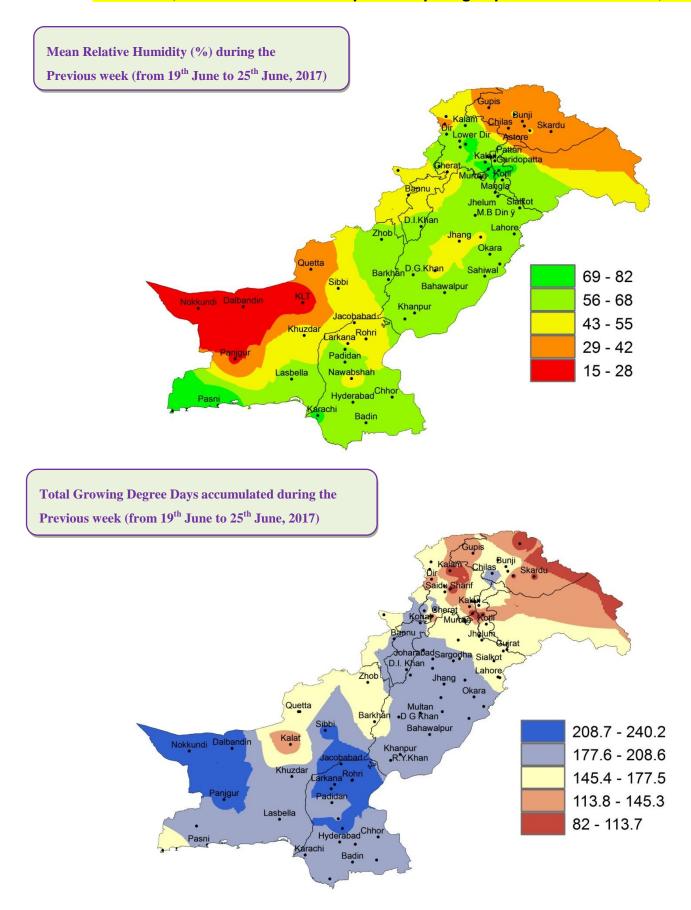
#### Eastern Baluchistan (Usta Muhammad)

Land has been prepared for Rice seedling.

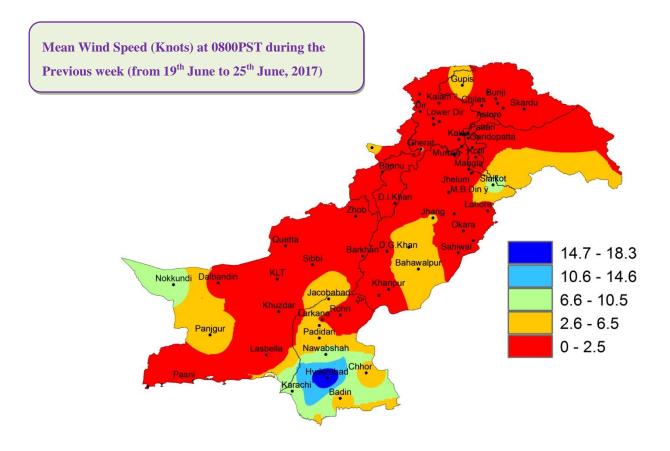
Mean Maximum Temperature ( $^{\circ}$ C) during the Previous week (from 19<sup>th</sup> June to 25<sup>th</sup> June, 2017)

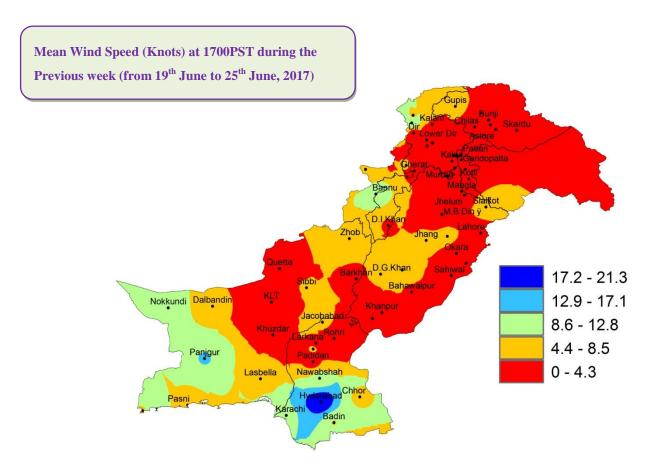






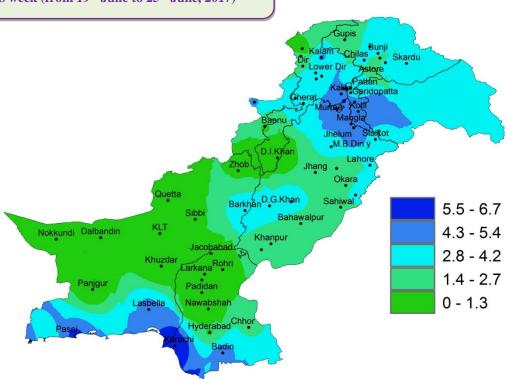
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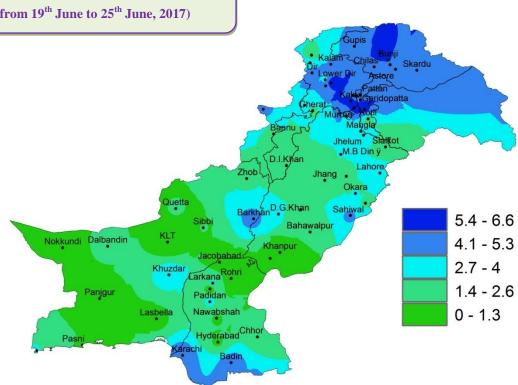


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Mean Cloudiness (Oktas) at 0800PST during the Previous week (from 19<sup>th</sup> June to 25<sup>th</sup> June, 2017)







# **Weekly Weather Advisory for Farmers** (from 29<sup>th</sup> June to 5<sup>th</sup> July, 2017)

Strong monsoon currents are penetrating in the country and likely to continue during next 48 hours. A fresh westerly wave is also affecting upper parts of the county and may persist during next 36 hours.

# **THURSDAY** 29-06-2017

Rain/thundershowers (with isolated heavy falls) with strong gusty winds are expected at a number of places in upper Punjab (Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad divisions), Khyber Pakhtunkhwa, lower Sindh (Hyderabad, Karachi, MirpurKhas, Sh. Benazirabad divisions), Islamabad, FATA and Kashmir, while at scattered places in south Punjab (Sahiwal, Multan, Bahawalpur, D.G. Khan divisions), upper Sindh (Larkana, Sukkar divisions), eastern Balochistan (Zhob, Sibbi, Naseerabad, Kalat divisions) and Gilgit-Baltistan.

# **FRIDAY** 30-06-2017

Rain-thundershowers with strong gusty winds are expected at scattered places in lower Sindh (Karachi, Mirpurkhas, Hyderabad divisions) and Kalat division, while at isolated places in Rawalpindi, Lahore Gujranwala, Hazara divisions, Kashmir and Gilgit-Baltistan.

## **SATURDAY** 01-07-2017

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershowers with gusty winds are expected at isolated places in Rawalpindi, Guiranwala, Lahore Hazara, Mirpurkhas Kashmir and Gilgitdivisions. Baltistan.

# **SUNDAY** 02-07-2017

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershowers with gusty winds are expected at isolated places in Rawalpindi, Lahore Gujranwala, Mirpurkhas, Hyderabad divisions, Kashmir and Gilgit-Baltistan.

# **MONDAY** 03-07-2017

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershowers with gusty winds are expected at isolated places in Rawalpindi, Lahore Gujranwala, Hazara divisions, Kashmir.

# **TUESDAY** 04-07-2017

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershowers with gusty winds are expected at scattered places in Rawalpindi, Lahore Gujranwala, Hazara Peshawar, Mardan divisions, Kashmir and Gilgit-Baltistan.

## WEDNESDAY 05-07-2017

Mainly hot and humid weather is expected in most parts of the country. However, rain-thundershowers with gusty winds are expected at scattered places in Lahore Gujranwala, Rawalpindi. Sargodha. Faisalabad, Hazara Peshawar, Mardan, Kohat divisions, Kashmir and Gilgit-Baltistan.

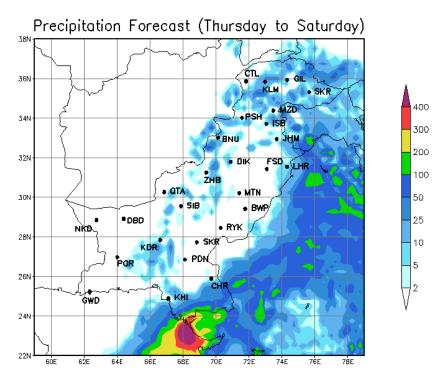
# **ADVISES FOR FARMERS**

During the last week, light to moderate rainfall occurred mainly in eastern part of the country. This may continue with almost the same pattern over northern parts of the country in coming days as well. Keeping in view the expected weather conditions following advises are suggested for farming community.

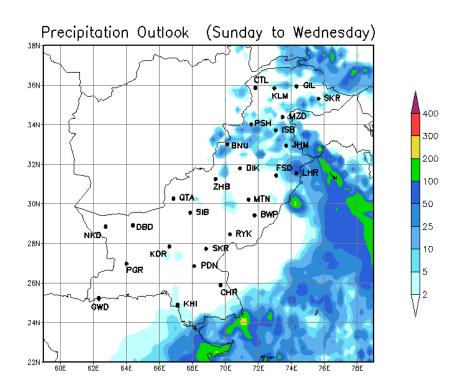
- Farmers of irrigated areas may irrigate the standing crops as per requirement in accordance with the expected weather conditions.
- Famers of Rice growing areas may complete sowing of their crops.

# Weather Outlook from 29th June to 5th July, 2017

The forecast from 29<sup>th</sup> June to 1<sup>st</sup> July, 2017 shows that light to moderate rainfall is expected at many places of GB, Kashmir, Western KP and scattered places of Baluchistan and Sindh.



The Outlook from 2<sup>nd</sup> July to 5<sup>th</sup> July, 2017 shows that light to moderate rainfall is expected at many places in GB and Kashmir, northern Punjab and KP.



# **National Weather Data of Selected Cities** (from 19<sup>th</sup> June to 25<sup>th</sup> June, 2017)

Stations	Temp	n/Nighttime perature °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	26.1	31.5	104.5	43.0	3.7	3.0	4.7	1.4	3.0
Badin	36.5	37.0	184.0	63.4	2.0	4.9	5.0	4.9	8.4
Bahawalnagar	38.6	44.0	193.0	57.0	22.0	1.7	4.2	0.0	0.0
Bahawalpur	36.4	40.7	182.7	63.9	116.3	1.7	1.3	5.1	3.3
Balakot	32.1	36.0	151.2	59.8	64.2	4.0	5.2	0.0	2.3
Bannu	39.1	43.0	178.3	49.4	0.0	1.3	2.3	0.0	11.3
Barkhan	34.0	36.5	164.3	60.8	38.5	3.6	4.3	0.9	3.0
Bunji	35.0	40.6	167.7	32.9	0.0	3.4	5.7	1.1	2.3
Cherat	28.9	35.0	125.5	50.8	23.0	3.4	2.5	2.6	3.0
Chhor	38.2	40.0	194.7	60.2	9.0	2.6	2.0	5.4	7.6
Chilas	37.6	43.5	183.3	30.5	2.0	2.7	4.5	1.7	2.7
Chitral	37.6	41.3	170.4	44.8	0.0	0.7	2.2	1.1	8.0
D.G.Khan	36.4	40.0	182.6	61.7	31.0	2.7	2.7	2.0	5.3
D.I.Khan	39.8	43.0	193.6	57.6	0.0	0.4	1.5	0.6	3.8
Dalbandin	46.5	48.5	217.5	15.2	0.0	0.9	1.8	1.7	5.7
Dir	30.3	34.0	125.1	66.8	15.0	2.7	5.0	0.0	2.0
Drosh	38.8	41.0	175.4	30.7	0.0	1.6	2.8	0.0	12.8
Faisalabad	37.4	40.5	186.1	59.0	26.0	1.3	2.1	1.6	2.3
Garidopatta	32.6	37.5	156.0	61.8	24.9	4.0	5.5	0.0	2.7
Gawader	35.1	36.0	160.0	72.5	0.0	3.0	1.8	1.4	10.3
Gilgit	35.1	40.5	150.0	42.9	4.4	2.9	5.8	0.0	4.0

<b>Volum</b>	e 17, No.	. 27	http://namc.pmd.gov.pk				June, 2017		
Gupis	31.6	35.5	138.5	30.8	0.0	1.9	4.3	3.7	5.0
Hyderabad	38.3	39.5	191.4	58.2	0.0	1.3	1.2	18.3	21.3
Islamabad	34.3	38.5	164.3	59.8	78.0	5.0	3.7	0.0	0.3
Jacobabad	41.9	44.0	216.3	43.1	9.2	1.1	0.7	4.6	5.7
Jhang	38.2	41.2	190.1	54.2	21.7	1.6	1.7	2.6	4.7
Jhelum	35.4	40.0	174.3	64.2	49.2	4.9	3.0	0.0	1.7
Jiwani	33.7	34.5	174.7	74.2	0.0	4.9	2.8	1.4	8.4
Kakul	28.8	33.0	133.0	70.0	39.0	5.1	5.7	0.0	1.0
Kalam	26.6	29.0	105.5	61.0	4.0	4.3	4.2	0.0	3.7
Kalat	35.2	37.0	134.0	22.2	0.0	0.0	0.0	0.0	0.0
Karachi	35.5	36.5	192.3	68.8	0.0	6.7	4.8	9.7	11.7
Khanpur	38.2	42.0	193.2	62.1	29.4	2.3	0.7	2.3	1.3
Khuzdar	40.6	42.0	191.3	45.8	7.0	0.0	3.5	0.6	2.7
Kotli	32.6	36.7	161.6	64.9	38.2	4.6	2.2	1.7	2.7
Lahore	34.9	39.0	174.3	62.7	40.6	2.7	3.2	1.1	2.0
Larkana	42.6	44.5	208.5	51.0	0.0	0.3	3.0	2.3	3.5
Lasbella	40.3	41.0	204.6	59.5	0.0	4.7	0.8	0.0	6.8
Lower Dir	35.9	38.5	176.5	59.9	29.0	2.9	3.5	2.0	1.7
M.B Din	35.9	40.5	176.7	61.4	43.2	3.4	2.7	0.6	1.3
MalamJabba	21.1	23.5	80.3	75.5	26.0	3.7	6.7	0.0	0.0
Mangla	34.8	39.2	174.2	63.7	46.6	4.9	3.0	2.3	4.0
Mir Khani	38.0	40.0	179.2	35.3	0.0	1.7	4.0	0.6	3.2
Moinjodaro	42.3	44.0	215.0	58.7	0.0	0.3	0.5	3.1	4.7
Multan(PBO)	36.5	41.2	186.7	52.0	41.0	3.6	2.3	4.3	8.0
Murree	21.9	24.5	92.6	75.4	69.1	5.4	5.7	1.1	0.3
Muzaffarabad	31.7	36.5	146.2	66.6	54.0	5.6	4.5	0.0	1.2

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<mark>Volum</mark>	e 17, No.	. 27	ht	tp://namc	<mark>.pmd.go</mark>	v.pk	Ju	June, 2017	
Nawabshah	43.7	45.0	207.8	53.3	0.0	0.9	1.2	9.1	10.8
Nokkundi	46.4	49.0	240.3	16.4	0.0	0.3	0.4	8.1	10.6
Okara	37.2	41.5	185.4	57.7	46.0	2.6	2.7	1.7	2.0
Padidan	41.2	42.0	202.8	58.6	0.0	1.3	3.0	2.9	2.4
Panjgur	43.1	44.0	210.3	27.7	0.0	0.3	0.0	3.7	13.0
Parachinar	31.6	36.2	153.4	45.9	12.0	4.3	4.3	3.0	4.3
Pasni	34.6	35.0	186.3	81.5	0.0	5.6	1.2	0.0	6.3
Pattan	37.5	39.5	183.8	53.6	3.0	2.1	4.0	0.3	0.0
Peshawar	37.0	41.0	186.6	55.9	4.0	3.0	3.0	1.4	4.7
Quetta	36.1	38.5	165.4	26.0	0.0	0.6	2.9	2.3	4.4
Rahim Yar Khan	39.9	44.2	199.4	59.4	34.0	2.1	1.0	1.1	2.7
Rawalakot	26.2	28.0	107.5	75.3	61.8	4.6	6.0	0.0	0.0
Rawalpindi	34.1	39.5	164.8	75.0	49.8	3.2	4.0	0.4	1.4
Rohri	42.8	44.0	221.5	50.7	0.0	0.9	0.5	0.9	0.7
Sahiwal	37.5	41.2	183.6	59.6	10.0	3.0	2.5	0.9	2.3
Saidu Sharif	34.1	37.3	161.5	62.8	25.5	2.9	4.2	0.0	1.3
Sialkot	33.6	38.5	165.4	61.8	71.8	3.9	2.0	8.0	6.7
Sibbi	44.0	48.0	212.5	50.7	0.0	1.1	1.3	2.0	4.7
Skardu	29.4	34.5	112.8	39.5	4.6	3.1	4.7	0.0	1.5
Tandojam	39.1	40.5	194.0	66.0	0.0	1.1	2.0	2.5	4.6
Usta.M	43.7	46.0	221.3	30.0	0.0	1.3	1.7	1.7	3.4

<sup>\*\*\*</sup> Shows that data was not available.

37.0

40.5

Zhob

55.5

166.0

0.0

1.1

2.3

1.4

6.7

# Findings of AgMIP Pakistan, 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)
- 2. There would be significant variability in rainfall patterns (about 25% increase in 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 کے دوران درجہ حرارت میں قابل ذکراضافہ ہوسکتا ہے۔ جو کہ دن کے وقت 2.8° c اور رات کو 2.2° ک ہوگا۔
  - 2۔ گرمیوں کی بارش میں 25 فیصد اضا فہ اور 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۔

(ایگمپ یا کتان 2012-2014)