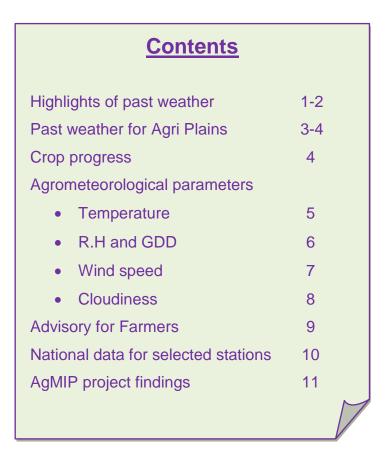
## Weekly Weather and Crop Bulletin for Pakistan

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

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Rainfall Distribution (mm) during the Previous Week  $(27^{th} May-2^{nd} June, 2019)$ 



# Quetta Pashawar Astore Pashawar Astore Faisalabad 5 - 7 1 - 4 0

# Highlights of Past Weather (27<sup>th</sup> May-2<sup>nd</sup> June, 2019)

Below normal day time temperatures were observed in Sindh and Balochistan, while mix trend was observed in Khyber Pakhtunkhwa, Punjab and Gilgit Baltistan during the last week.

Province wise distribution of rainfall reported as follows during the last week:

- 1. Light rainfall observed in Punjab, Khyber Pakhtunkhwa and Gilgit Baltistan.
- 2. Light rainfall observed in Sindh.
- 3. Dry weather observed over Balochistan.

<u>Patron-in-Chief:</u> Muhammad Riaz ( Director General)

 $\underline{Editor\text{-in-Chief:}}\ Dr\ Muhammad\ Afzaal\ (Director)$ 

**Editor:** Khalida Noureen (Meteorologist)

# Past Weather of Provinces (27<sup>th</sup> May-2<sup>nd</sup> June, 2019)

#### **Punjab**

Light rainfall observed in Punjab during the week. Weekly maximum and minimum temperatures recorded as 38.1°C & 25.3°C respectively. For the recent week on average 189.4 growing degree days were accumulated. Average relative humidity recorded as 31% and wind speed in the morning/evening recorded as 1.3/3.0 Knots. During the previous week the highest precipitation was recorded as 0.01 mm at Islamabad while maximum temperature was recorded as 48°C at Rahim Yar Khan and Noorpur Thal.

#### **Baluchistan**

Dry weather was observed in Baluchistan during the week. Weekly maximum and minimum temperatures recorded as 34.2°C & 23.0°C respectively. For the recent week on average 163.6 growing degree days were accumulated. Average relative humidity recorded as 42% and wind speed in the morning/evening recorded as 1.3/5.8 Knots. During the previous week the maximum temperature was recorded as 47°C at Sibbi.

#### **Khyber Pakhtunkhwa**

Light rainfall observed in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 30.8°C & 17.7°C respectively. For the recent week on average 147.0 growing degree days were accumulated. Average relative humidity recorded as 42% and wind speed in the morning/evening recorded as 0.6/1.7 Knots. During the previous week the highest precipitation recorded as 7.0 mm at Kalam while maximum temperature was recorded as 46°C at D.I. Khan.

#### Gilgit-Baltistan and Azad Jammu & Kashmir

Light rainfall observed in Gilgit-Baltistan & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 27.5°C & 14.5°C respectively. For the recent week on average

132.5 growing degree days were accumulated. Average relative humidity recorded as 35% and wind speed in the morning/evening recorded as 0.5/4.7 Knots. During the previous week the highest precipitation recorded as 4.6 mm at Bunji while maximum temperature was recorded as 41.7°C at Kotli.

#### Sindh

Light rainfall observed in Sindh during the week. Weekly maximum and minimum temperatures recorded as 39.9°C & 27.3°C respectively. For the recent week, on average 196.8 growing degree days were accumulated. Average relative humidity recorded as 47% and wind speed in the morning/evening recorded as 2.4/4.1 Knots. During the previous week the maximum temperature was recorded as 50°C at Jacobabad.

## Past Weather for Major Agricultural Plains (27<sup>th</sup> May-2<sup>nd</sup> June, 2019)

#### Rawalpindi (Potohar region)

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 0.0/0.6 Oktas while, average relative humidity observed as 46%. Mean day time temperature recorded 39.5°C & for the recent week 170.5 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/0.2 Knots.

#### Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, clear sky was observed in the morning/evening while, average relative humidity observed as 29%. Mean day time temperature recorded as 44.9°C & for the recent week 207.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/1.6 Knots.

#### Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/1.4 Oktas while, average relative humidity observed as 58%. Mean day time temperature recorded as 42.6°C & for the recent week 204.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.5/2.9 Knots.

#### **Usta Muhammad (Eastern Baluchistan)**

Dry weather reported from Usta Muhammad during the week: however. cloudiness morning/evening recorded as 0.2/0.4 Oktas while, average relative humidity observed as 34%. Mean day time temperature recorded as 43.5°C & for the growing recent week 208.0 degree days Wind accumulated. speed recorded in the morning/evening as 1.1/0.0 Knots.

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

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.7/2.4 Oktas while, average relative humidity observed as 20%. Mean day time temperature recorded as 31.9°C & for the recent week 135.0 growing degree days accumulated.

Wind speed recorded in the morning/evening as 2.4/3.3 Knots.

#### <u>Past Weather for Sub-Regional Agricultural</u> <u>Plains (27<sup>th</sup> May-2<sup>nd</sup> June, 2019)</u>

#### Multan

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.0/0.1 Oktas while, average relative humidity observed as 28.2%. Mean day time temperature recorded as 40.0°C & for the recent week 207.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 2.7/6.6 Knots.

#### Lahore

0.01 mm rainfall was reported from Lahore during the week; however, however, cloudiness in the morning/evening recorded as 0.0/0.9 Oktas while, average relative humidity observed as 27%. Mean day time temperature recorded as 38.6°C & for the recent week 197.9 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.9/1.7 Knots.

#### Zhob

Dry weather reported from reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/1.7 Oktas while, average relative humidity observed as 37%. Mean day time temperature recorded as 32.6°C & for the recent week 153.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 4.0/5.6 Knots.

#### Murree

1.00 mm rainfall was reported from Murree during however, cloudiness the week: in morning/evening recorded as 0.3/1.1 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 24.1°C & for the recent week 104.5 growing degree days Wind speed recorded in accumulated the morning/evening as 0.3/0.9 Knots.

#### D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.3/0.0 Oktas while, average relative

humidity observed as 37%. Mean day time temperature recorded as 38.9°C & for the recent week 189.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.6/1.1 Knots.

#### **Peshawar**

3.00 mm rainfall reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.1/3.9 Oktas while, average relative humidity observed as 41%. Mean day time temperature recorded as 35.9°C & for the recent week 167.7 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.3/1.4 Knots.

#### Kalam

7.00 mm rainfall reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.0/4.1 Oktas while, average relative humidity observed as 44%. Mean day time temperature recorded as 22.0°C & for the recent 68.2 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/1.7 Knots.

#### **Gilgit**

Dry weather reported from Gilgit during the week. However, cloudiness in the morning/evening recorded as 1.4/4.6 Oktas while, average relative humidity observed as 38%. Mean day time temperature recorded as 27.9°C & for the recent week 105.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/3.1 Knots.

#### Skardu

0.01 mm rainfall reported from Skardu during the week; however, cloudiness in the morning/evening recorded as 1.4/3.3 Oktas while, average relative humidity observed as 27%. Mean day time temperature recorded as 22.5°C & for the recent week 74.3 growing degree days accumulated. Wind speed recorded in the morning/evening as 0.0/6.7 Knots.

#### <u>Crop Situation for Major Agricultural Plains</u> (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: V.Good, 3<sup>rd</sup> True Leaf Stage.

#### Lower Sindh (Tandojam)

Presently cotton crop is sown in the fields of RAMC Tandojam.

**Cotton**: **Good**, 3<sup>rd</sup> True Leaf stage.

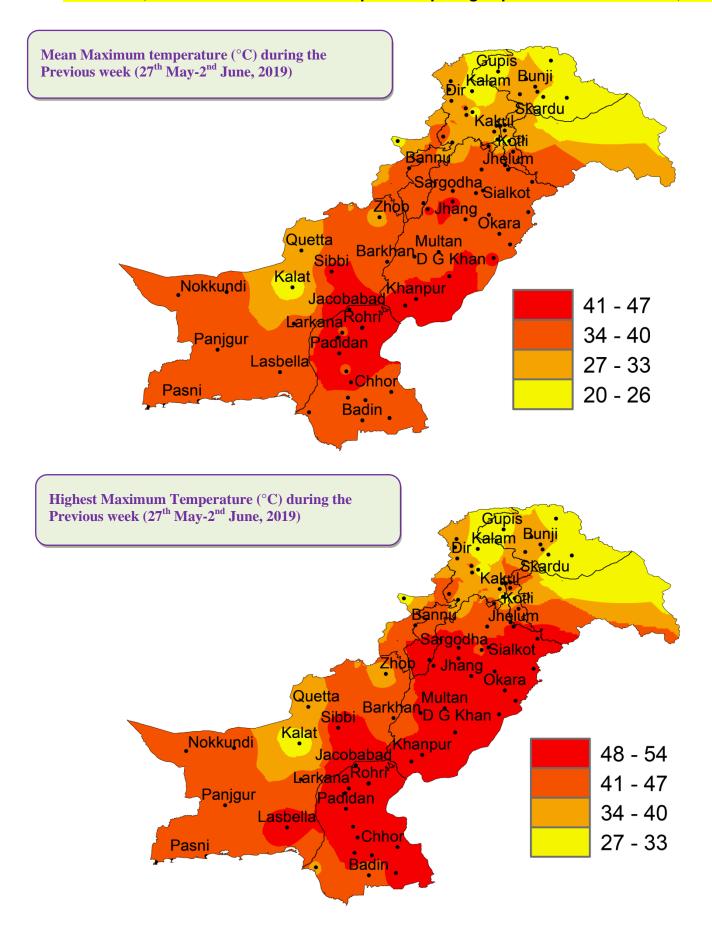
#### Northern Baluchistan (Quetta)

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

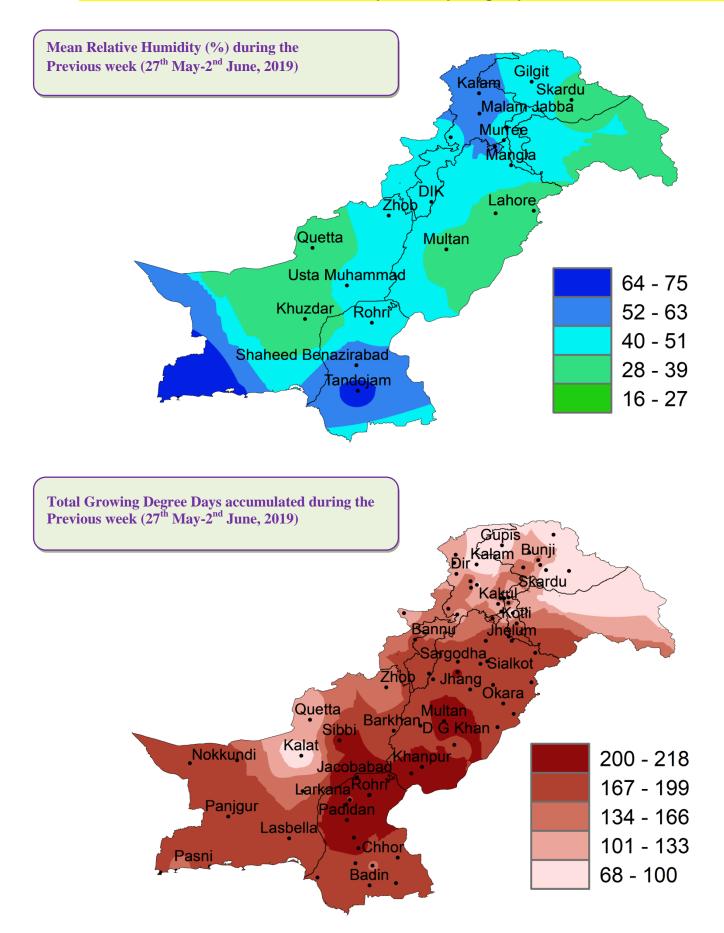
#### Eastern Baluchistan (Usta Muhammad)

Presently rice crop is sown in the fields of RAMC Usta Muhammad.

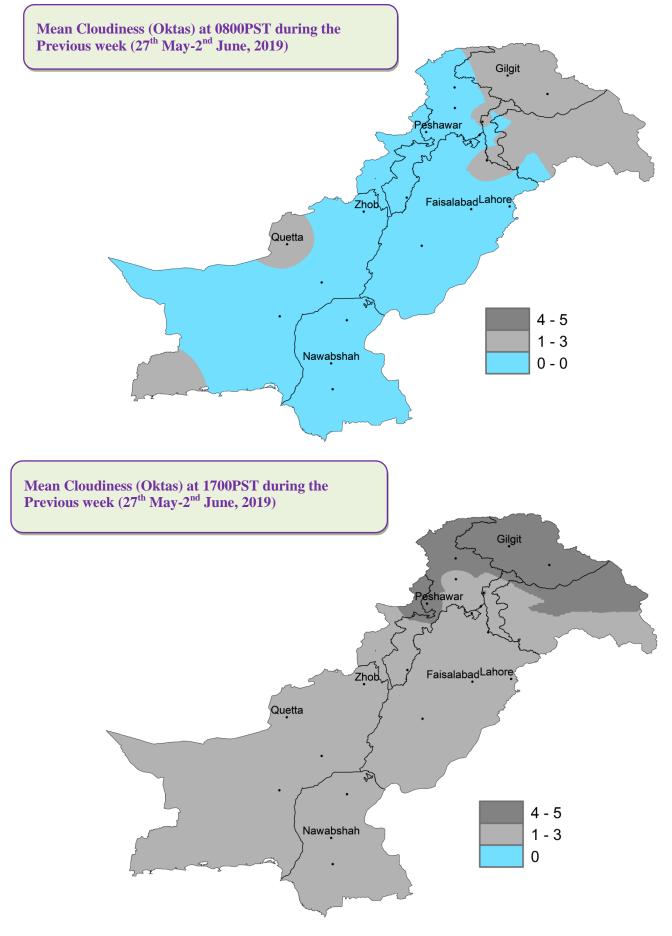
Rice: Good, Paneri in process.



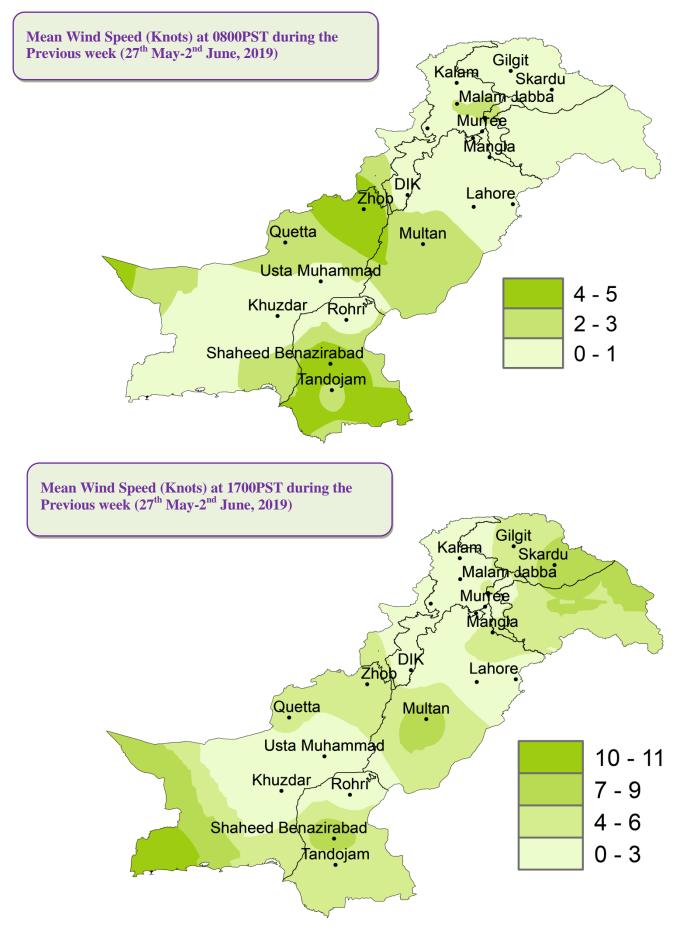
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## Weekly Weather Advisory for Farmers (3<sup>rd</sup> June to 9<sup>th</sup> June, 2019)

Continental air is prevailing over most parts of the country. A westerly wave is expected to affect upper parts of the country from Friday.

#### MONDAY 03-06-2019

Mainly hot and dry weather is expected in most parts of the country. However, dust-thunderstorm/rain is expected at isolated places in Malakand, Hazara, Mardan, Peshawar, Kohat, Rawalpindi, Sargodha, Gujranwala, Lahore divisions, Islamabad, Gilgit-Baltistan and Kashmir.

## **TUESDAY** 04-06-2019

Mainly hot and dry weather is expected in most parts of the country. However, dust-thunderstorm/rain is expected at isolated places in Malakand, Hazara, Mardan, Peshawar, Kohat, Rawalpindi, Sargodha, Gujranwala, Lahore divisions, Islamabad, Gilgit-Baltistan and Kashmir.

## WEDNESDAY 05-06-2019

Scattered dust-thunderstorm/rain is expected in Khyber Pakhtunkhwa (Malakand, Hazara, Peshawar, Kohat, Bannu, D.I Khan, Mardan divisions), Punjab (Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad, Sahiwal, Multan, D.G Khan divisions), Islamabad, Kashmir and Gilgit Baltistan. Hot and Dry weather elsewhere in the country.

## THURSDAY 06-06-2019

Mainly hot and dry weather is expected in most parts, while very hot in southern parts of the country. However, dust-thunderstorm/rain is expected at isolated places in upper Khyber Pakhtunkhwa, upper Punjab, Islamabad, Kashmir and Gilgit-Baltistan.

## FRIDAY 07-06-2019

Mainly hot and dry weather is expected in most parts, while very hot in plain areas of Punjab and Sindh. However, dust-thunderstorm/rain is

expected at isolated places in Malakand, Hazara, Peshawar, Kohat, Rawalpindi divisions, Kashmir and Gilgit-Baltistan.

## **SATURDAY 08-06-2019**

Mainly hot and dry weather is expected in most parts, while very hot in plain areas of Punjab, Khyber Pakhtunkhwa, eastern Balochistan and Sindh. However, dust-thunderstorm/rain is expected at isolated places in Malakand, Hazara divisions, Kashmir and Gilgit-Baltistan.

#### SUNDAY 09-06-2019

Mainly hot and dry weather is expected in most parts, while very hot in plain areas of Punjab, Khyber Pakhtunkhwa, eastern Balochistan and Sindh. However, dust-thunderstorm/rain is expected at isolated places in Malakand, Hazara, Peshawar, Kohat divisions, Kashmir and Gilgit-Baltistan.

#### **ADVISORY FOR FARMERS**

During the last week, light rainfall occurred at scattered places in Punjab, GB and KPK, while dry weather prevailed over Sindh and Balochistan. Keeping in view the above expected weather conditions following advisories are suggested for farming community.

- 1. Rice growers are advised to sow the crop "paneeri" in accordance with the recommendations by the agriculture experts.
- Farmers of southern Punjab and Sindh are advised to complete the sowing of cotton and other Kharif crops to utilize the maximum soil moisture.
- 3. In the upper half of the country where the fields which are just vacated after the recent wheat crops, the fields may be ploughed and "Suhaga" applied to conserve the soil moisture for the upcoming Kharif crops.
- 4. Farmers of upper Sindh and southern Punjab are advised to complete the sowing of cotton crop.

## National Weather Data of Selected Cities Weekly Data from (27<sup>th</sup> May-2<sup>nd</sup> June, 2019)

Stations	Minimum/Night time Temperature (°C)		Growing Degree Days	Relative Humidity (%)	Rainfall (mm)	Cloudiness (Oktas) 0800	Cloudiness (Oktas) 1700	Wind Speed (Knots)	Wind Speed (Knots)
Stations	Mean	highest	Days	(70)		PST	PST	0800 PST	1700 PST
D.I.Khan	38.9	45.5	189.3	37	0.00	0.3	0.0	0.6	1.1
Faisalabad	44.0	46.5	207.2	29	0.00	0.0	0.0	0.9	1.6
Gawadar	35.1	41.0	158.0	72	0.00	0.7	0.0	0.0	11.1
Gilgit	27.9	36.5	105.3	38	0.00	1.4	4.6	0.0	3.1
Kalam	22.0	28.5	68.2	44	7.00	0.0	4.1	0.0	1.7
Khuzdar	33.8	39.0	162.8	16	0.00	0.0	1.3	0.0	0.6
Lahore	38.6	44.8	197.9	27	0.01	0.0	0.9	0.9	1.7
Malam Jabba	21.6	27.5	86.8	47	0.00	0.4	2.4	1.4	2.6
Mangla	36.6	43.5	172.8	33	0.00	0.9	3.0	0.0	5.7
Multan (PBO)	40.0	45.4	207.9	28	0.00	0.0	0.1	2.7	6.6
Murree	24.1	29.5	104.5	38	1.00	0.3	1.1	0.3	0.9
Muzaffarabad	30.7	37.0	131.7	41	0.00	0.6	3.1	2.0	3.3
Nawabshah	39.7	45.0	199.3	47	0.00	0.0	1.6	3.7	7.7
Peshawar	35.9	41.6	167.7	41	3.00	0.1	3.9	0.3	1.4
Quetta	31.9	33.6	135.0	20	0.00	0.7	2.4	2.4	3.3
Rawalpindi	39.5	41.5	170.5	46	0.00	0.0	0.6	0.0	0.2
Rohri	46.8	47.5	209.0	36	0.00	0.0	0.0	0.9	1.7
Skardu	22.5	29.3	74.5	27	0.01	1.4	3.3	0.0	6.7
Tandojam	42.6	43.5	204.3	58	0.00	0.0	1.4	2.5	2.9
Usta.M	43.5	44.0	208.0	34	0.00	0.2	0.4	1.1	0.0
Zhob	32.6	37.5	153.3	37	0.00	0.0	1.7	4.0	5.6

<sup>\*\*\*</sup> 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 قابل ذکراضافہ ہوسکتا ہے۔
  - 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 ہے 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۔ موسی تغیرات کے سدّیاب (بذریعینی ٹیکنالوجی کا استعال اور بہترنظم ونسق) ہے غربت میں کمی اور کسانوں کی زندگی میں خوشحالی لائی جاسکتی ہے۔

(الگمپ یا کتان 2012-2014)