

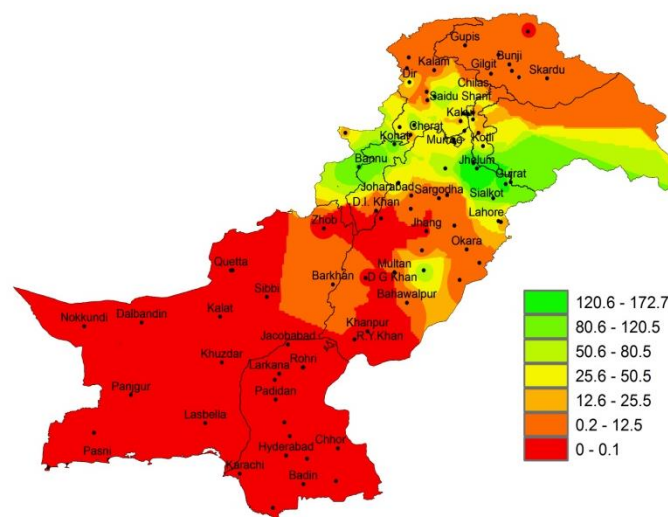
# Weekly Weather and Crop Bulletin for Pakistan

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**Rainfall Distribution (mm) during the  
previous Week (31st July to 6th August, 2017)**



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## Highlights of Past Weather (31<sup>st</sup> July to 6<sup>th</sup> August, 2017)

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

Province wise distribution of rainfall reported as follows:

- Light to moderate rainfall (with isolated heavy fall) reported from most parts of Punjab, Khyber Pakhtunkhwa and Kashmir during the week.
- Light rainfall occurred at scattered places of Gilgit-Baltistan, while at isolated places in Sindh, Baluchistan and FATA.

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

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

**Editor: Dr. Dildar H. Kazmi (Meteorologist)**

## **Past Weather of Provinces (31<sup>st</sup> July to 6<sup>th</sup> August, 2017)**

### **Punjab**

Light to moderate rainfall (with isolated heavyfall) reported from most part of Punjab during the week. Weekly maximum and minimum temperatures recorded as 35.8°C & 27.1°C respectively. For the recent week on average 185.1 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 72% and wind speed in the morning/evening recorded as 3.2/3.3 knots. During the previous week the highest amount of rainfall was recorded as 173.3 mm at Jhelum & highest maximum temperature was recorded as 42.5°C at Bhakkar.

### **Balochistan**

Light rainfall was reported from isolated places of Balochistan during the week. Weekly maximum and minimum temperatures recorded as 37.8°C & 23.8°C respectively. For the recent week on average 171.8 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 2.6/6.5 knots. During the previous week the highest amount of rainfall was recorded as 2.0 mm at Barkhan & highest maximum temperature was recorded as 45.5°C at Turbat.

### **Khyber Pakhtunkhwa**

Light to moderate rainfall (with isolated heavyfall) reported from most part of Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 33.8°C & 22.7°C respectively. For the recent week on average 162.9 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 68% and wind speed in the morning/evening recorded as 0.7/3.5 knots. During the previous week the highest amount of rainfall was recorded as 122.0 mm at Bannu & highest maximum temperature was recorded as 41.0 °C at D.I. Khan.

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

Light to moderate rainfall reported from most part of Kashmir, while light rainfall observed at scattered places in Gilgit-Baltistan during the week. Weekly maximum and minimum temperatures recorded as 34.4°C & 21.1°C respectively. For the recent week on average 150.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 58% and wind speed in the morning/evening recorded as 0.9/2.8 knots. During the previous week the highest amount of rainfall was recorded as 80.0 mm at Muzaffarabad & highest maximum temperature was recorded as 45.5°C at Chilas.

### **Sindh**

Light rainfall reported from isolated places of Sindh during the week. Weekly maximum and minimum temperatures recorded as 37.1°C & 27.2°C respectively. For the recent week, on average 193.0 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 66% and wind speed in the morning/evening recorded as 6.0/7.4 knots. During the previous week the highest amount of rainfall was recorded as Trace (0.03mm) at Karachi, highest maximum temperature was recorded as 44.0°C at Dadu.

**Past Weather for Major Agricultural Plains**  
**(31<sup>st</sup> July to 6<sup>th</sup> August, 2017)****Rawalpindi (Potohar region)**

Rainfall reported as 56.4 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 4.9/4.7 Oktas while, average relative humidity observed as 84%. Mean day time temperature recorded as 32.9°C & for the recent week 164.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.0/1.4 knots.

**Faisalabad (Central Punjab)**

Rainfall reported as 37.0 mm from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.6/3.1 Oktas while, average relative humidity observed as 70%. Mean day time temperature recorded as 37.4°C & for the recent week 191.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/1.8 knots.

**Tandojam (Lower Sindh)**

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 3.0/1.3 Oktas while, average relative humidity observed as 71%. Mean day time temperature recorded as 36.1°C & for the recent week 179.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.4/4.5 knots.

**Usta Muhammad (Eastern Balochistan)**

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.0/0.2 Oktas while, average relative humidity observed as 66%. Mean day time temperature recorded as 37.8°C & for the recent week 197.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.5/9.3 knots.

**Quetta (Northern Baluchistan)**

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.8/2.1 Oktas while, average relative humidity observed as 19.0%. Mean day time temperature recorded as 34.8°C & for the recent

week 159.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.1/3.6 knots.

**Past Weather for Sub-Regional Agricultural Plains (31<sup>st</sup> July to 6<sup>th</sup> August, 2017)****Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.8/1.9 Oktas while, average relative humidity observed as 64%. Mean day time temperature recorded as 37.2°C & for the recent week 198.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 10.7/9.1 knots.

**Lahore**

Rainfall reported as 15.03 mm from Lahore during the week; however, cloudiness in the morning/evening recorded as 3.8/5.4 Oktas while, average relative humidity observed as 74%. Mean day time temperature recorded as 34.8°C & for the recent week 182.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.3/1.4 knots.

**Zhob**

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 1.3/2.0 Oktas while, average relative humidity observed as 53%. Mean day time temperature recorded as 39.8°C & for the recent week 183.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.2/6.4 knots.

**Murree**

Rainfall reported as 47.02 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 6.3/8.0 Oktas while, average relative humidity observed as 86%. Mean day time temperature recorded as 22.5°C & for the recent week 101.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.6 knots.

**D.I. Khan**

Dry weather reported from D.I.Khan during the week; however, cloudiness in the morning/evening recorded as 2.2/1.9 Oktas while, average relative humidity observed as 69%. Mean day time temperature recorded as 39.6°C & for the recent week 203.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.0/1.4 knots.

**Peshawar**

Rainfall reported as 43.02 mm from Peshawar during the week; however, cloudiness in the morning/evening recorded as 6.5/6.7 Oktas while, average relative humidity observed as 83%. Mean day time temperature recorded as 2.3°C & for the recent week 172.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.0/2.3 knots.

**Kalam**

Rainfall reported as 3.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 5.3/5.0 Oktas while, average relative humidity observed as 71%. Mean day time temperature recorded as 27.8°C & for the recent week 120.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.9 knots.

**Gilgit**

Rainfall reported as *Trace* (0.02 mm) from Gilgit during the week; However, cloudiness in the morning/evening recorded as 2.1/5.1 Oktas while, average relative humidity observed as 57%. Mean day time temperature recorded as 37.1°C & for the recent week 167.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 knots.

**Skardu**

Rainfall reported as 6.02 mm from Skardu during the week; However, cloudiness in the morning/evening recorded as 3.3/5.0 Oktas while, average relative humidity observed as 50%. Mean day time temperature recorded as 34.1°C & for the recent week 144.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.9 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 (Cotton) grown in the fields of RAMC Faisalabad.

**Cotton:** Good condition, *flowering* stage completed.

**Lower Sindh (Tandojam)**

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

**Cotton (HH-906):** *Boll opening* stage (40%).

**Northern Baluchistan (Quetta)**

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

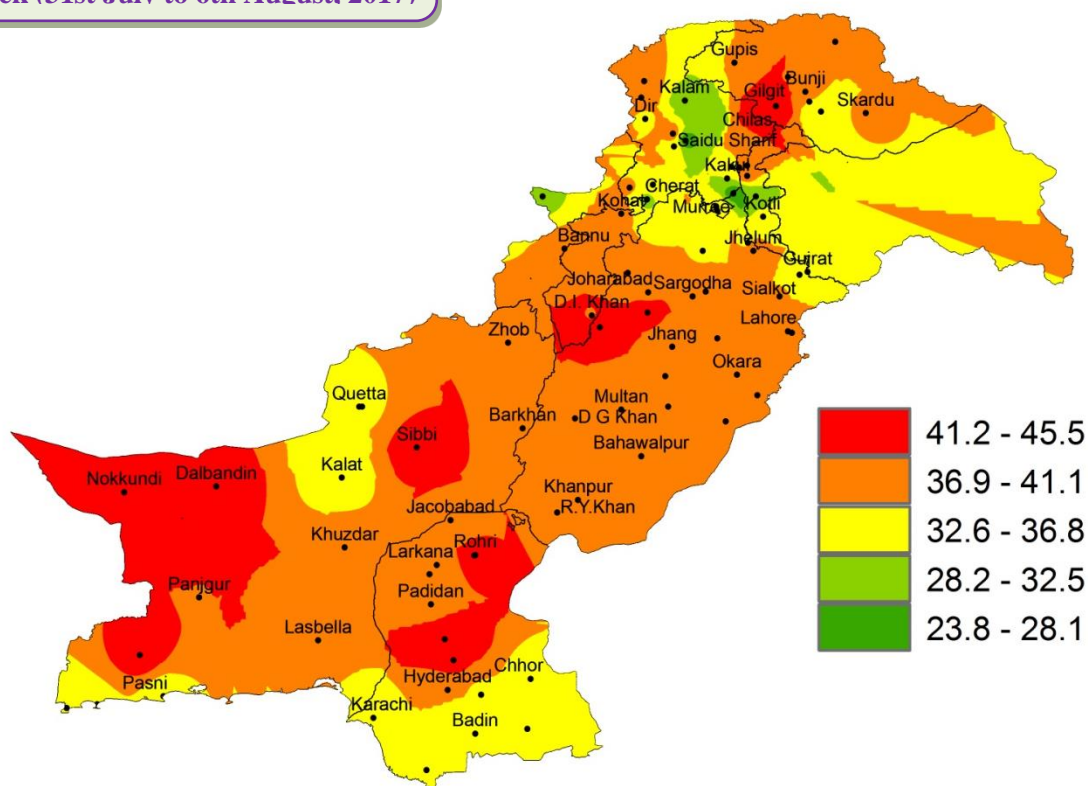
**Eastern Baluchistan (Usta Muhammad)**

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

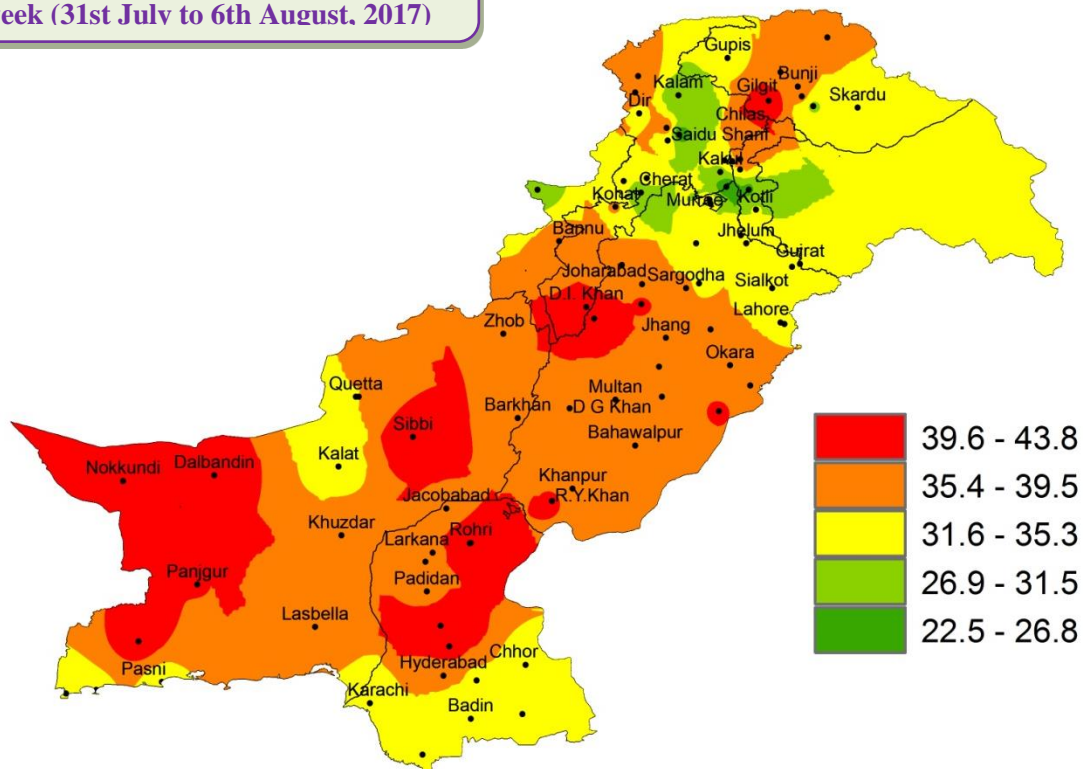
**Rice:** *Third Leave Stage*



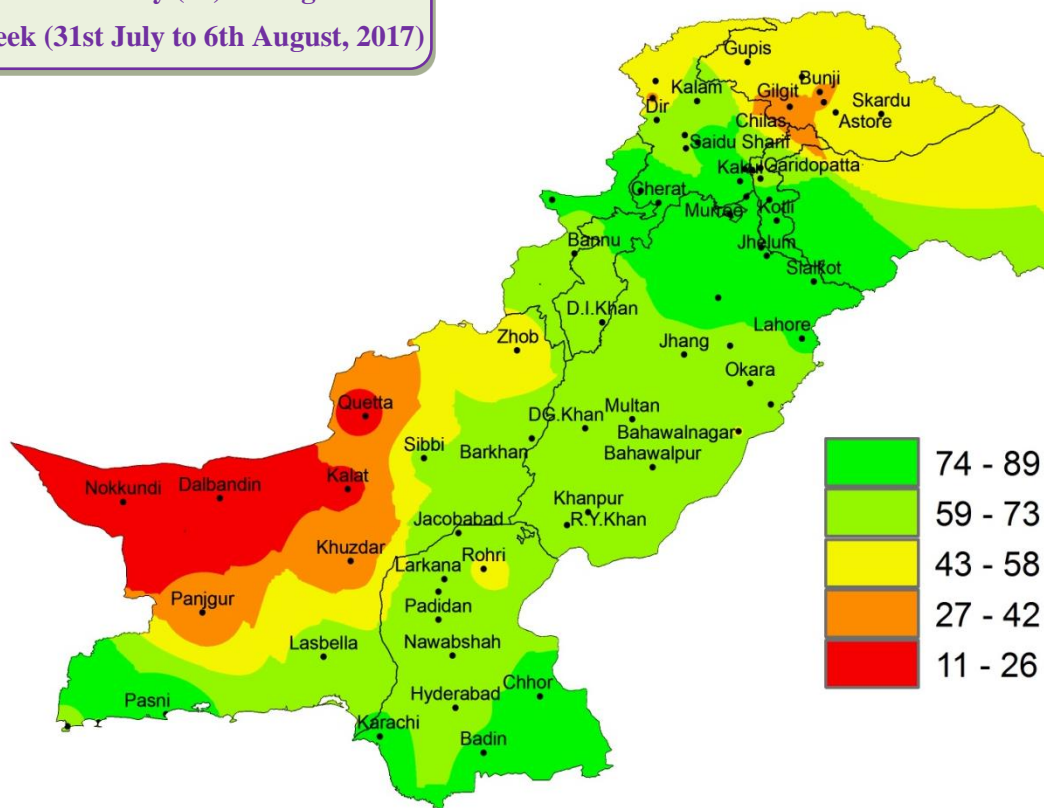
**Mean Maximum Temperature (°C) during the  
Previous week (31st July to 6th August, 2017)**



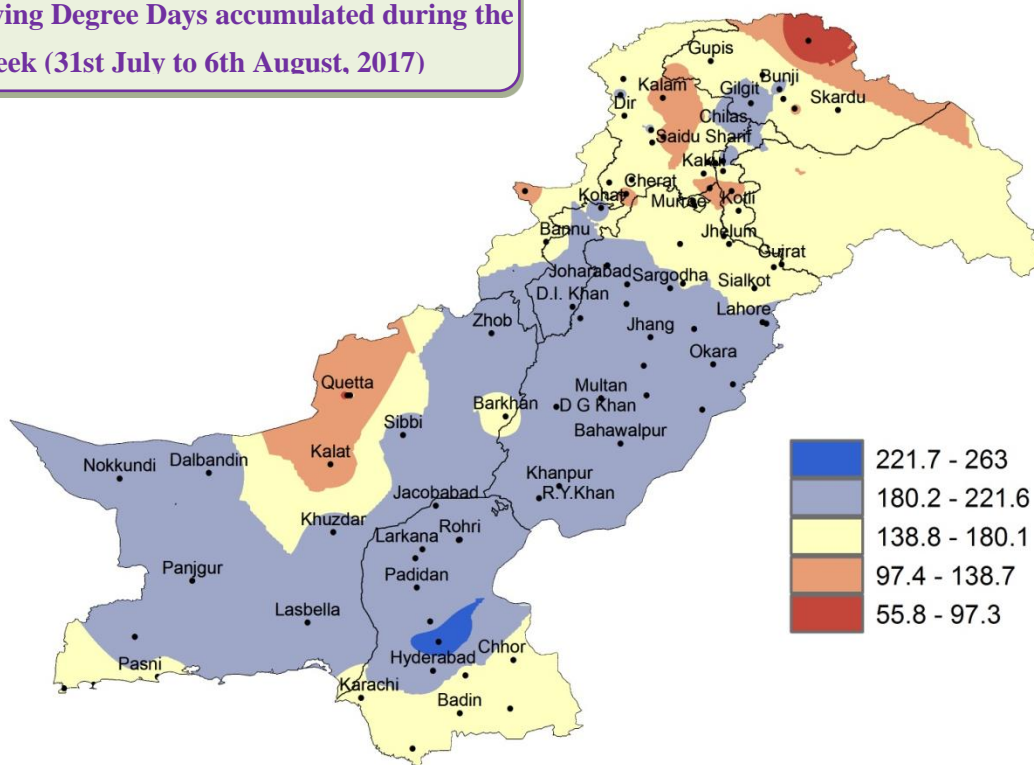
**Highest maximum Temperature (°C) during the  
Previous week (31st July to 6th August, 2017)**



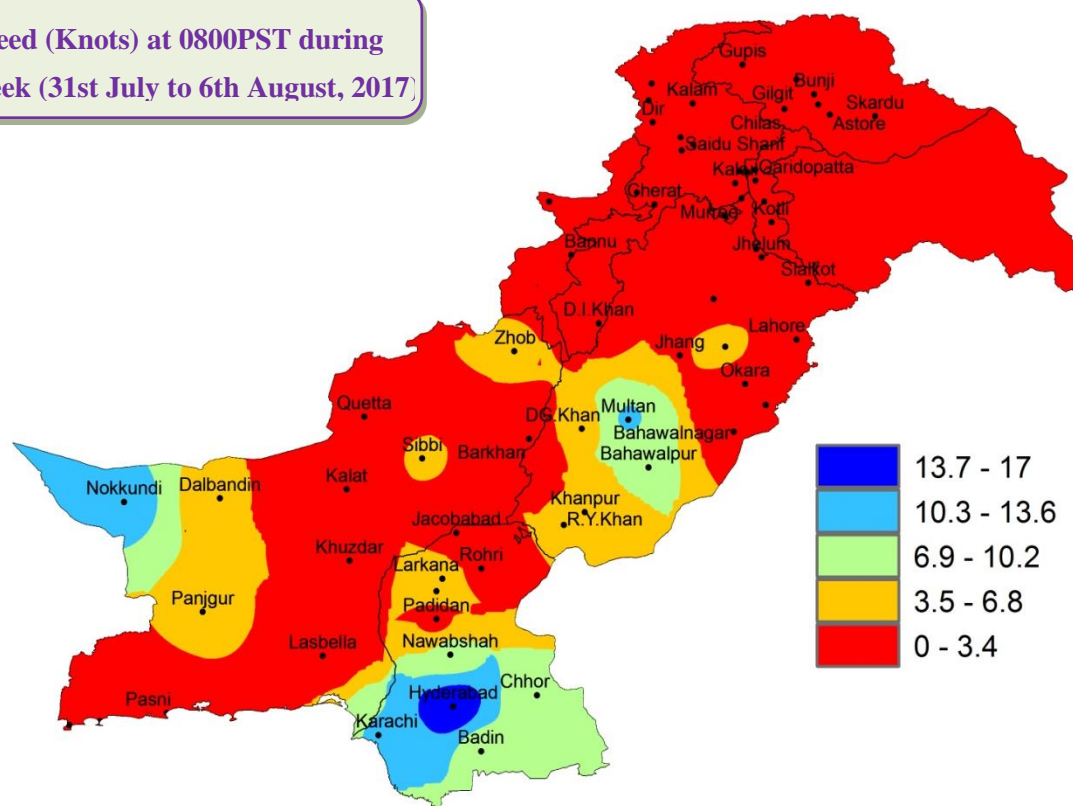
**Mean Relative Humidity (%) during the  
previous week (31st July to 6th August, 2017)**



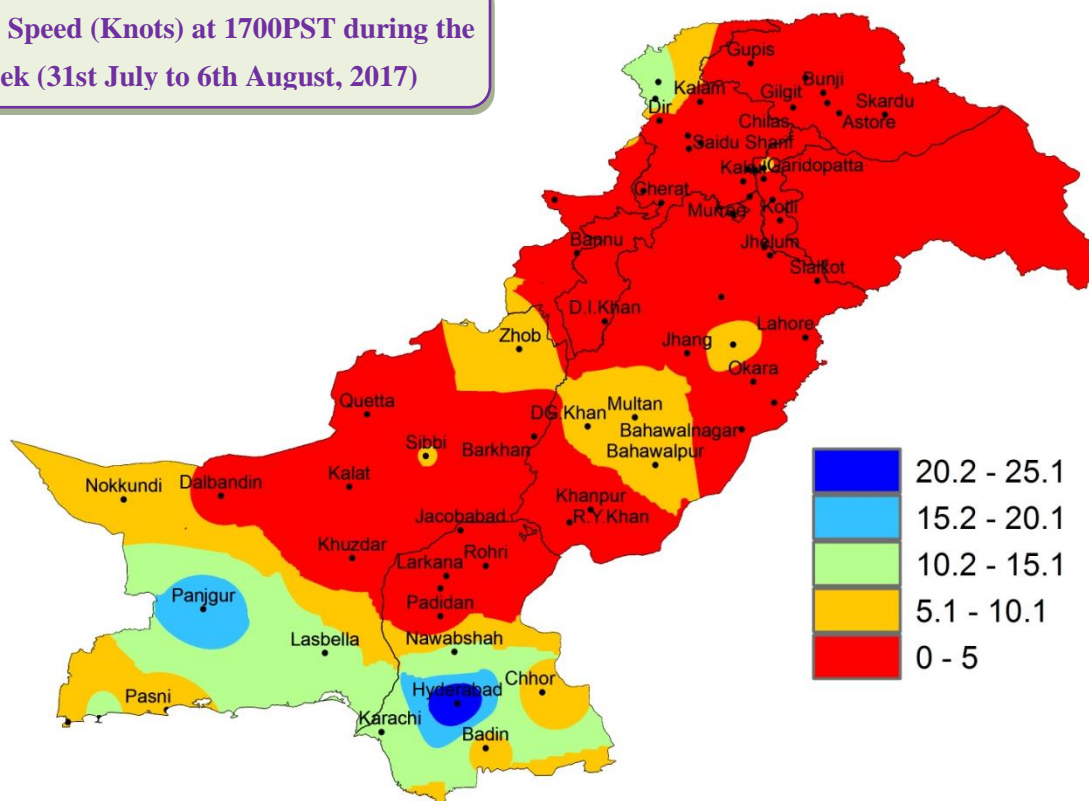
**Total Growing Degree Days accumulated during the  
previous week (31st July to 6th August, 2017)**



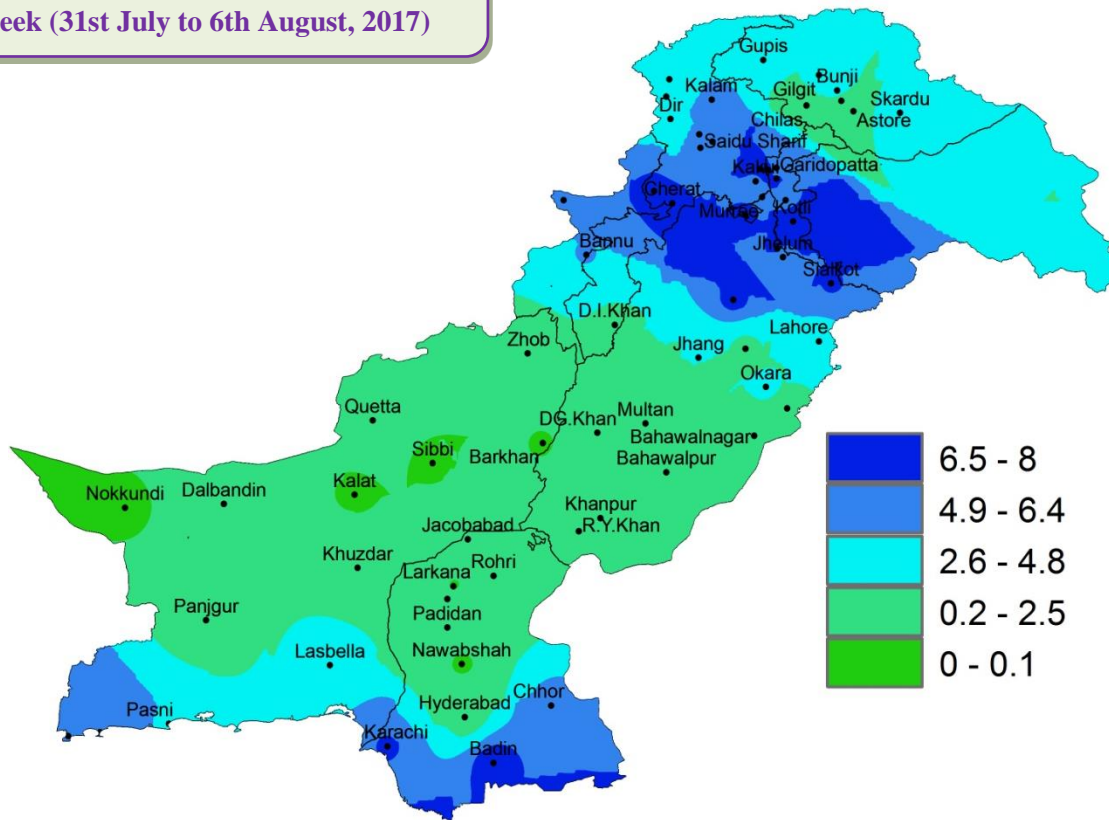
Mean Wind Speed (Knots) at 0800PST during  
the previous week (31st July to 6th August, 2017)



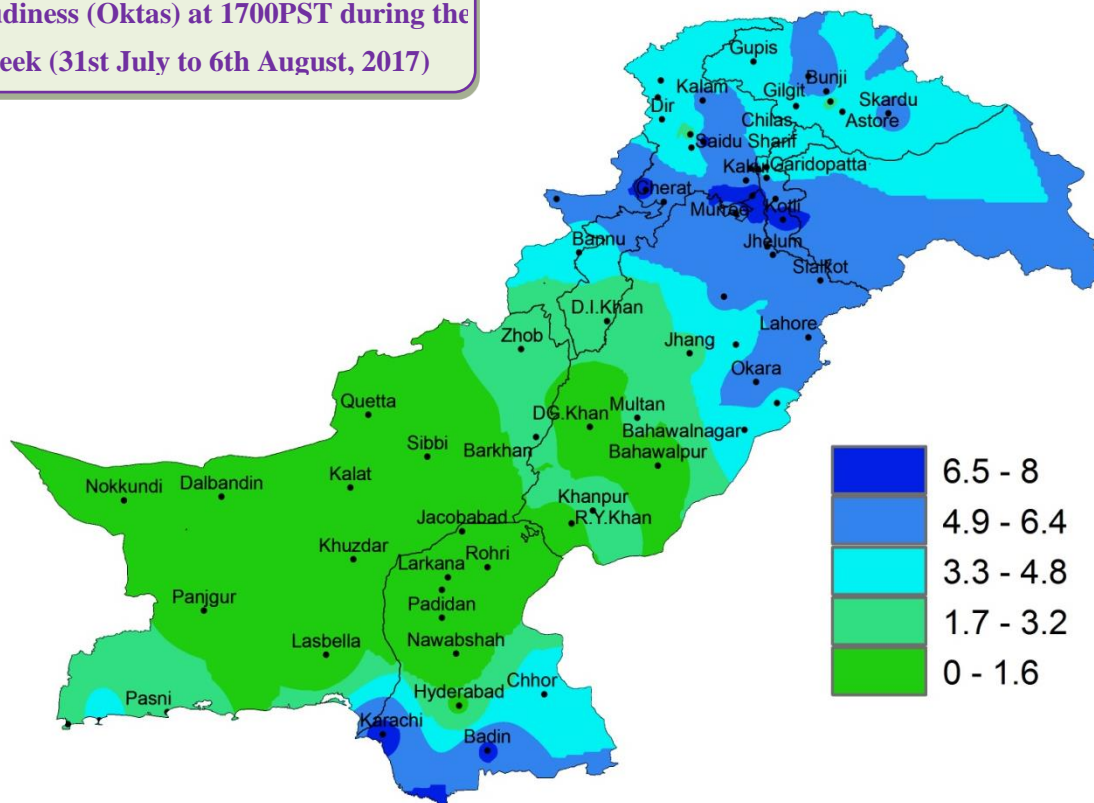
Mean Wind Speed (Knots) at 1700PST during the  
previous week (31st July to 6th August, 2017)



Mean Cloudiness (Oktas) at 0800PST during the previous week (31st July to 6th August, 2017)



Mean Cloudiness (Oktas) at 1700PST during the previous week (31st July to 6th August, 2017)





**Weekly Weather Advisory for Farmers****(7<sup>th</sup> August to 13<sup>th</sup> August, 2017)**

Weak seasonal low lies over north Balochistan. Weak moist currents from Arabian sea are penetrating upper parts of country. A shallow westerly wave is affecting northern parts of the country and its adjoining areas.

**MONDAY (07-08-2017)**

Mainly hot and humid weather is expected in most parts of the country. However, rain-thunderstorm is expected at isolated places in Hazara, Peshawar, Kohat, Bannu, Mardan, D.I khan, Rawalpindi, Gujranwala, Lahore divisions, upper FATA, Islamabad and Kashmir.

**TUESDAY (08-08-2017)**

Rain-thunderstorm (with few heavy falls) is expected at scattered places in Hazara, Peshawar, Kohat, Mardan, Bannu, Rawalpindi, Gujranwala divisions, FATA, Islamabad and Kashmir. Rain-thunderstorm is expected at isolated places in Lahore, Malakand divisions & Gilgit-Baltistan. while light rain/drizzle in coastal areas of Sindh. Hot and humid weather is expected elsewhere in the country.

**WEDNESDAY (09-08-2017)**

Rain-thunderstorm (with few heavy falls) is expected at scattered places in Hazara, Peshawar, Mardan, Rawalpindi, Gujranwala divisions, FATA, Islamabad and Kashmir. Rain-thunderstorm is expected at isolated places in Lahore, Sargodha, D.G Khan, Malakand, Kohat, Bannu, D.I.Khan, Kalat divisions and Gilgit-Baltistan, while light rain/drizzle in Makran division and coastal areas of Sindh. Hot and humid weather is expected elsewhere in the country.

**THURSDAY (10-08-2017)**

Rain-thunderstorm (with few heavy falls) is expected at scattered places in Hazara, Peshawar, Mardan, Rawalpindi, Gujranwala divisions, FATA, Islamabad and Kashmir. Rain-thunderstorm is expected at isolated places in Lahore, Sargodha, D.G Khan, Malakand, Kohat, Bannu, D.I.Khan, Kalat divisions and Gilgit-Baltistan, while light rain/drizzle in Makran division and coastal areas of Sindh. Hot and humid weather is expected elsewhere in the country.

**FRIDAY (11-08-2017)**

Rain-thunderstorm (with few heavy falls) is expected at scattered places in upper Punjab (Rawalpindi, Faisalabad, Gujranwala, Lahore, Sargodha divisions), Khyber Pakhtunkhwa, Gilgit-Baltistan and Kashmir. Hot and humid weather is expected in other parts of the country.

**SATURDAY (12-08-2017)**

Rain-thunderstorm (with isolated heavy falls) is expected at scattered places in upper Punjab (Rawalpindi, Faisalabad, Gujranwala, Lahore, Sargodha divisions), KP, FATA and Kashmir while at isolated places in Zhob, D.G Khan & Gilgit-Baltistan. Hot and humid weather is expected in other parts of the country.

**SUNDAY (13-08-2017)**

Rain-thunderstorm is expected at isolated places in upper Punjab (Rawalpindi, Faisalabad, Gujranwala, Lahore, Sargodha divisions), Hazara, Peshawar, D.I.Khan, D.G Khan, Zhob, Kalat divisions, upper FATA, Islamabad and Kashmir. Hot and humid weather is expected in other parts of the country.

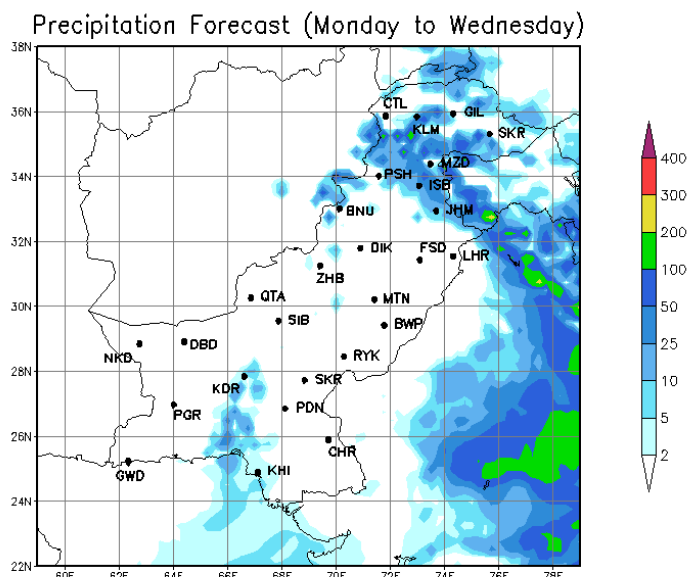
**ADVISES FOR FARMERS**

During the last week, light to moderate rainfall occurred in most of the agricultural plains in most parts of the country except Baluchistan. This may continue with almost the same pattern over upper half of the country in coming days as well. Keeping in view the expected weather conditions following advises are suggested for farming community.

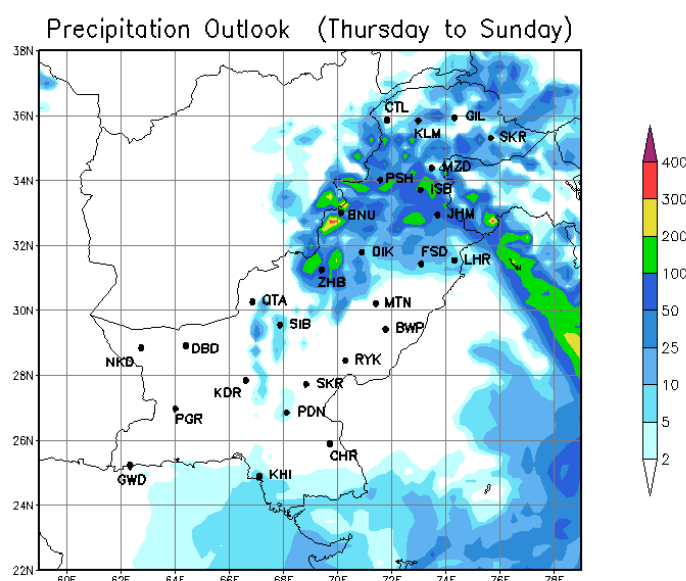
- Pest/viral attacks and more weeds growth are expected after consistent rains in standing crops. Farmers are therefore advised to take in time precautionary measures in this regard.
- Farmers of irrigated areas may irrigate the standing crops as per requirement in accordance with the expected weather conditions.
- In case of any virus/pest attack on Cotton or other standing crops, recommended pesticide spray may be applied immediately.

## Weather Outlook from 7<sup>th</sup> August to 13<sup>th</sup> August, 2017

The outlook from 7<sup>th</sup> to 9<sup>th</sup> August, 2017 shows that light to moderate rainfall is expected at scattered places of Gilgit-Baltistan, Kashmir, and Upper Punjab and at isolated places of Khyber Pakhtunkhwa. Light rainfall is expected at isolated places of coastal areas in Sindh/Balochistan.



The outlook from 10<sup>th</sup> to 13<sup>th</sup> August, 2017 shows that light to moderate rainfall (with isolated heavyfall spells) is expected at scattered places of KP, upper and central Punjab, Gilgit-Baltistan and Kashmir, while at isolated places of Baluchistan and along the coasts of Sindh.



**National Weather Data of Selected Cities (from 31<sup>th</sup> July to 6<sup>th</sup> August, 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	30.6	33.0	132.8	48	13.50	2.5	4.7	1.7	3.4
Badin	32.9	34.0	175.4	74	0.00	7.3	6.6	7.7	8.3
Bahawalnagar	39.8	41.0	206.8	57	0.01	1.3	4.0	1.3	1.7
Bahawalpur	38.0	38.5	197.4	63	0.00	0.8	1.0	7.3	5.4
Balakot	33.2	35.0	164.5	77	18.00	6.8	5.6	0.0	1.0
Bannu	37.0	39.5	175.4	66	122.00	4.8	3.9	0.0	4.9
Barkhan	37.1	38.0	176.3	60	2.00	0.0	1.9	0.0	2.9
Bunji	37.7	40.3	186.0	40	2.82	3.7	6.1	2.0	4.0
Cherat	26.6	31.0	120.5	89	11.00	6.7	5.4	2.3	3.7
Chhor	33.6	35.3	174.6	80	0.00	5.5	4.3	7.3	8.3
Chilas	41.9	45.5	208.8	33	7.01	1.7	3.9	3.0	3.4
Chitral	37.7	39.0	173.7	52	0.01	3.0	3.7	0.0	10.3
D.G.Khan	37.8	39.0	199.3	62	0.00	1.7	0.7	5.3	6.0
D.I.Khan	39.6	41.0	203.2	69	0.00	2.2	1.9	1.0	1.4
Dalbandin	42.4	45.0	189.0	14	0.00	0.7	0.0	4.0	3.1
Dir	33.9	35.5	150.3	69	30.00	4.5	4.4	0.0	2.0
Drosh	39.0	40.5	183.7	39	0.00	3.2	3.3	0.7	14.4
Faisalabad	37.4	39.0	191.9	70	37.00	1.6	3.1	1.4	1.8
Garidopatta	34.8	38.2	167.9	67	25.90	6.7	5.0	0.0	1.7
Gawader	34.4	35.0	151.8	73	0.00	6.0	3.7	0.0	11.1
Gilgit	37.1	41.0	167.3	57	0.02	2.7	5.1	0.0	0.0
Gupis	32.9	37.0	141.8	44	1.00	3.0	3.7	1.3	4.0

Hyderabad	35.9	37.0	183.8	69	0.00	1.5	1.4	17.0	25.1
Islamabad	32.3	37.0	164.1	83	38.81	6.5	6.0	0.7	0.6
Jacobabad	38.2	39.0	198.8	63	0.00	1.2	0.6	1.0	2.9
Jhang	37.5	38.0	197.8	69	0.00	2.5	2.7	3.3	4.0
Jhelum	33.8	38.0	175.4	83	173.30	5.8	4.9	1.0	0.9
Jiwani	32.6	33.5	171.3	73	0.00	5.2	2.4	2.8	8.0
Kakul	30.1	32.5	145.9	80	20.52	6.0	5.9	0.7	1.4
Kalam	27.8	29.0	120.0	71	3.00	5.3	5.0	0.0	2.9
Kalat	32.9	33.0	120.0	24	0.00	0.0	0.0	0.0	0.0
Karachi	32.6	34.0	176.6	75	0.03	6.5	6.7	10.3	10.6
Khanpur	37.9	38.6	196.6	64	0.00	1.8	2.1	4.0	3.7
Khuzdar	37.9	40.0	189.3	36	0.00	1.0	0.0	0.7	3.4
Kotli	31.8	34.7	165.4	83	48.00	8.0	6.9	0.0	2.0
Lahore	34.8	37.2	182.8	74	15.03	3.8	5.4	1.3	1.4
Larkana	39.2	40.0	201.0	61	0.00	0.0	0.0	5.0	4.0
Lasbella	38.8	39.5	191.7	64	0.00	3.8	0.6	0.3	11.4
Lower Dir	38.3	40.5	188.8	64	0.00	4.8	2.6	0.3	2.6
M.B Din	34.3	39.0	178.3	85	5.40	6.8	5.0	1.3	1.1
Malam Jabba	22.6	23.5	93.8	79	103.00	5.5	7.1	0.0	0.0
Mangla	33.1	36.5	171.6	80	130.80	6.5	5.6	1.3	2.3
Mir Khani	36.2	36.6	172.8	40	0.00	1.0	2.0	1.5	3.0
Moinjodaro	39.5	40.5	200.8	61	0.00	1.0	0.8	4.4	5.0
Multan(PBO)	37.2	38.4	198.1	64	0.00	1.8	1.9	10.7	9.1
Murree	22.5	24.0	101.4	86	47.02	6.3	8.0	0.3	0.6
Muzafarabad	34.2	37.0	165.1	76	80.00	7.3	5.3	0.0	2.0
Nawabshah	40.6	42.5	202.8	59	0.00	0.0	1.3	8.7	10.9



Nokkundi	41.9	44.0	211.3	11	0.00	0.0	0.3	12.3	9.7
Okara	37.8	40.0	198.0	64	7.30	2.8	6.3	1.0	2.0
Padidan	39.1	40.0	198.0	67	0.00	0.8	1.1	2.0	2.0
Panjgur	39.6	41.0	187.3	32	0.00	0.7	0.9	5.3	17.7
Parachinar	28.7	30.0	130.8	75	23.00	5.0	5.4	3.0	3.3
Pasni	32.9	33.0	171.8	86	0.00	4.7	2.3	0.3	7.9
Pattan	39.2	40.5	193.8	53	0.00	4.5	3.1	1.7	7.3
Peshawar	33.9	37.5	172.7	83	43.02	6.5	6.7	1.0	2.3
Quetta	34.8	36.5	159.3	19	0.00	0.8	2.1	1.1	3.6
Rahim Yar Khan	39.9	40.5	200.8	63	0.00	1.0	1.3	3.7	3.1
Rawalakot	26.1	28.3	122.0	88	20.81	5.7	5.9	0.0	1.7
Rawalpindi	32.9	37.0	164.9	84	56.40	4.9	4.7	1.0	1.4
Rohri	40.3	41.5	194.8	56	0.00	0.5	0.0	2.0	1.7
Sahiwal	37.9	39.2	194.3	65	8.00	1.8	4.3	2.7	2.3
Saidu Sharif	34.9	36.5	173.8	71	0.01	4.8	3.4	0.0	0.0
Sialkot	33.0	36.1	169.2	81	148.60	6.5	5.4	2.3	2.7
Sibbi	43.8	45.0	197.0	60	0.00	0.0	0.0	4.0	5.1
Skardu	34.1	37.8	144.4	50	6.20	3.3	5.0	0.3	0.9
Tandojam	36.1	37.5	179.5	71	0.00	3.0	1.3	3.4	4.5
Usta. M	37.8	38.4	197.9	66	0.00	0.0	0.2	2.5	9.3
Zhob	38.9	40.0	183.5	53	0.00	1.3	2.0	4.2	6.4

\*\*\* 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 سدباب (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)