

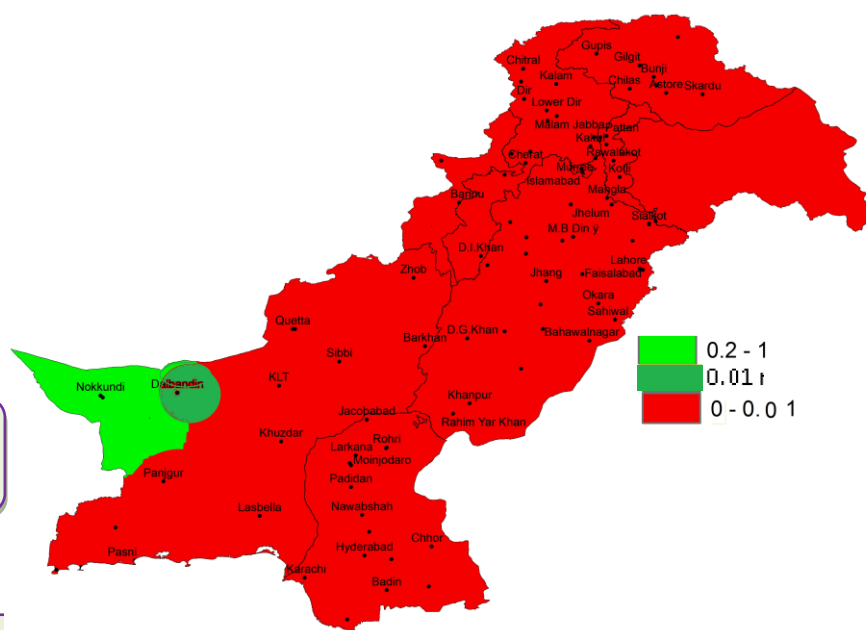
Weekly Weather and Crop Bulletin for Pakistan

**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 (06th to 12th November, 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

Highlights of Past Weather (06th to 12th November, 2017)

Mix trend observed in Punjab while above normal night time temperatures reported from rest parts of the country during this week.

Province wise distribution of rainfall reported as follows:

- Light rainfall (including traces) observed at isolated places in western Baluchistan during this week.
- Dry weather (no rainfall) reported from other parts of the country.

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 (06th to 12th November, 2017)

Punjab

Dry weather reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 24.3°C & 13.1°C respectively. For the recent week on average 95.7 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 82% and wind speed in the morning/evening recorded as 1.1/0.6 knots. During the previous lowest minimum temperature was recorded as 8.4°C at Murree.

Balochistan

Light rainfall reported from isolated places of Balochistan province during the week. Weekly maximum and minimum temperatures recorded as 29.1°C & 11.9°C respectively. For the recent week on average 105.6 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 1.5/4.4 knots. During the previous week highest amount of rainfall reported as 1 mm at Nokundi while lowest minimum temperature was recorded as 0°C at Kalat.

Khyber Pakhtunkhwa

Dry weather reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 23.7°C & 8.4°C respectively. For the recent week on average 77.5 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 0.4/1.9 knots. During the previous week the lowest minimum temperature was recorded as 0°C at Kalam.

Gilgit-Baltistan and Azad Jammu & Kashmir

Dry weather reported from Kashmir and Gilgit-Baltistan during the week. Weekly maximum and minimum temperatures recorded as 22.0°C & 5.2°C respectively. For the recent week on average 56.8 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 53% and wind speed in the morning/evening recorded as 0.3/0.8 knots. During the previous week the lowest minimum temperature was recorded as -3.8°C at Skardu.

Sindh

Dry weather reported from Sindh province during the week. Weekly maximum and minimum temperatures recorded as 33.1°C & 17.0°C respectively. For the recent week, on average 137.2 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 65% and wind speed in the morning/evening recorded as 0.8/1.5 knots. During the previous week, lowest minimum temperature was recorded as 12.3°C at Mithi.

**Past Weather for Major Agricultural Plains
(06th to 12th November, 2017)****Rawalpindi (Potohar region)**

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 0.6/1.0 Oktas while average relative humidity observed as 78%. Mean night time temperature recorded as 10.8°C & for the recent week 96.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.6 knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while average relative humidity observed as 86%. Mean night time temperature recorded as 13.9°C & for the recent week 90.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/0.0 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 62%. Mean night time temperature recorded as 14.8°C & for the recent week 137.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 knots.

Usta Muhammad (Eastern Balochistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.0/0.0 Oktas while average relative humidity observed as 83.5%. Mean night time temperature recorded as 16.2°C & for the recent week 122.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.9 knots.

Quetta (Northern Baluchistan)

Light rainfall (trace 0.01 mm) reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 1.1/1.3 Oktas while average relative humidity observed as 22%. Mean night time temperature recorded as 6.5°C & for the

recent week 64.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/2.4 knots.

**Past Weather for Sub-Regional Agricultural
Plains (06th to 12th November, 2017)****Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.0/0.0 Oktas while average relative humidity observed as 88%. Mean night time temperature recorded as 14.8°C & for the recent week 97.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 9.0/0.8 knots.

Lahore

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as **/0.0 Oktas while average relative humidity observed as 79%. Mean night time temperature recorded as 15°C & for the recent week 100.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/0.7 Oktas while average relative humidity observed as 39%. Mean night time temperature recorded as 8.6°C & for the recent week 82.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 4.7/4.0 knots.

Murree

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 0.5/0.8 Oktas while average relative humidity observed as 55%. Mean night time temperature recorded as 9.0°C & for the recent week 63.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.7/1.7 knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as **/** Oktas while average relative humidity observed as 87%. Mean night time temperature recorded as 14.6°C & for the recent week 100.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.3 knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.6/1.2 Oktas while average relative humidity observed as 83%. Mean night time temperature recorded as 12.8°C & for the recent week 97.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.3 knots.

Kalam

Dry weather reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while average relative humidity observed as 53%. Mean night time temperature recorded as 1.3°C & for the recent week 38.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.3 knots.

Gilgit

Dry weather reported from Gilgit during the week; However, cloudiness in the morning/evening recorded as 1.5/3.0 Oktas while average relative humidity observed as 63%. Mean night time temperature recorded as 0.8°C & for the recent week 49.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 knots.

Skardu

Dry weather reported from Skardu during the week; However, cloudiness in the morning/evening recorded as 1.5/2.7 Oktas while average relative humidity observed as 60%. Mean night time temperature recorded as -2.9°C & for the recent week 14.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 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)

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

Cotton: Good condition, *first picking started on 11th November.*

Lower Sindh (Tandojam)

There is presently no crop in the fields of RAMC Tandojam. However, land is being prepared for new crop.

Northern Baluchistan (Quetta)

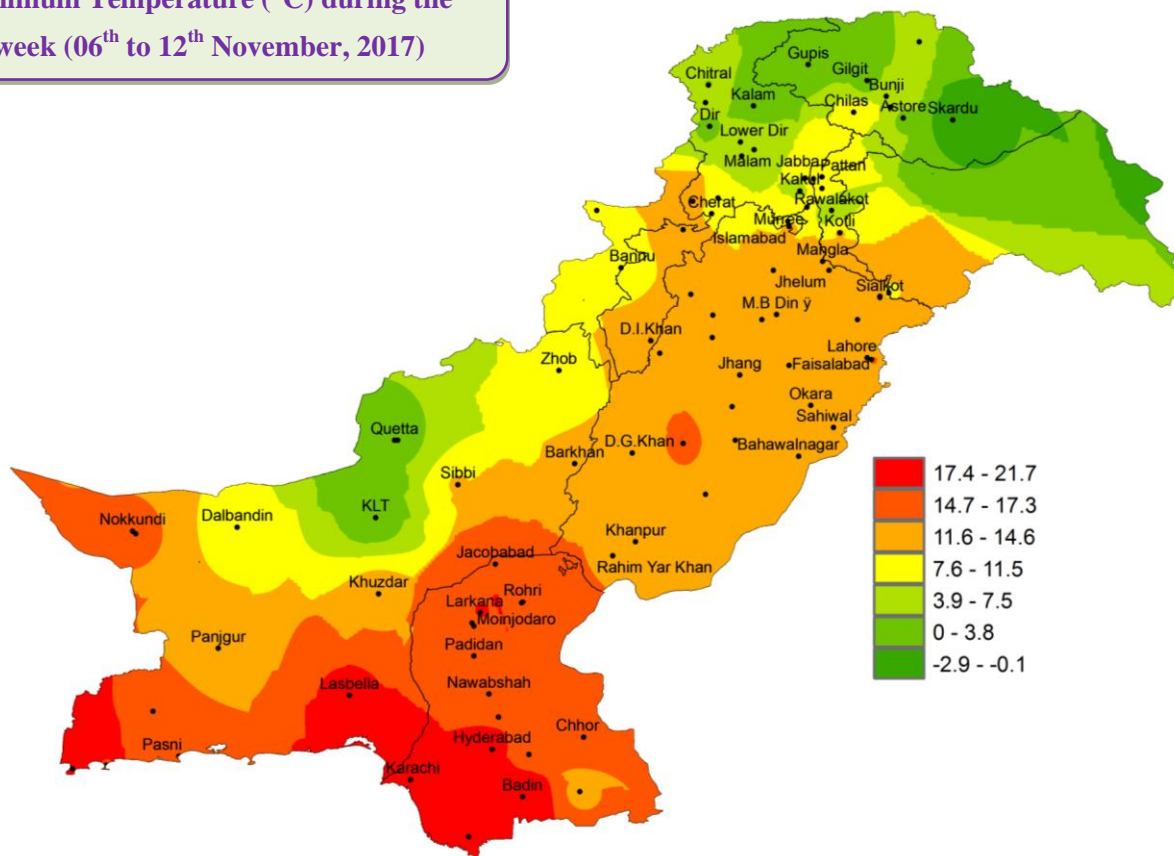
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

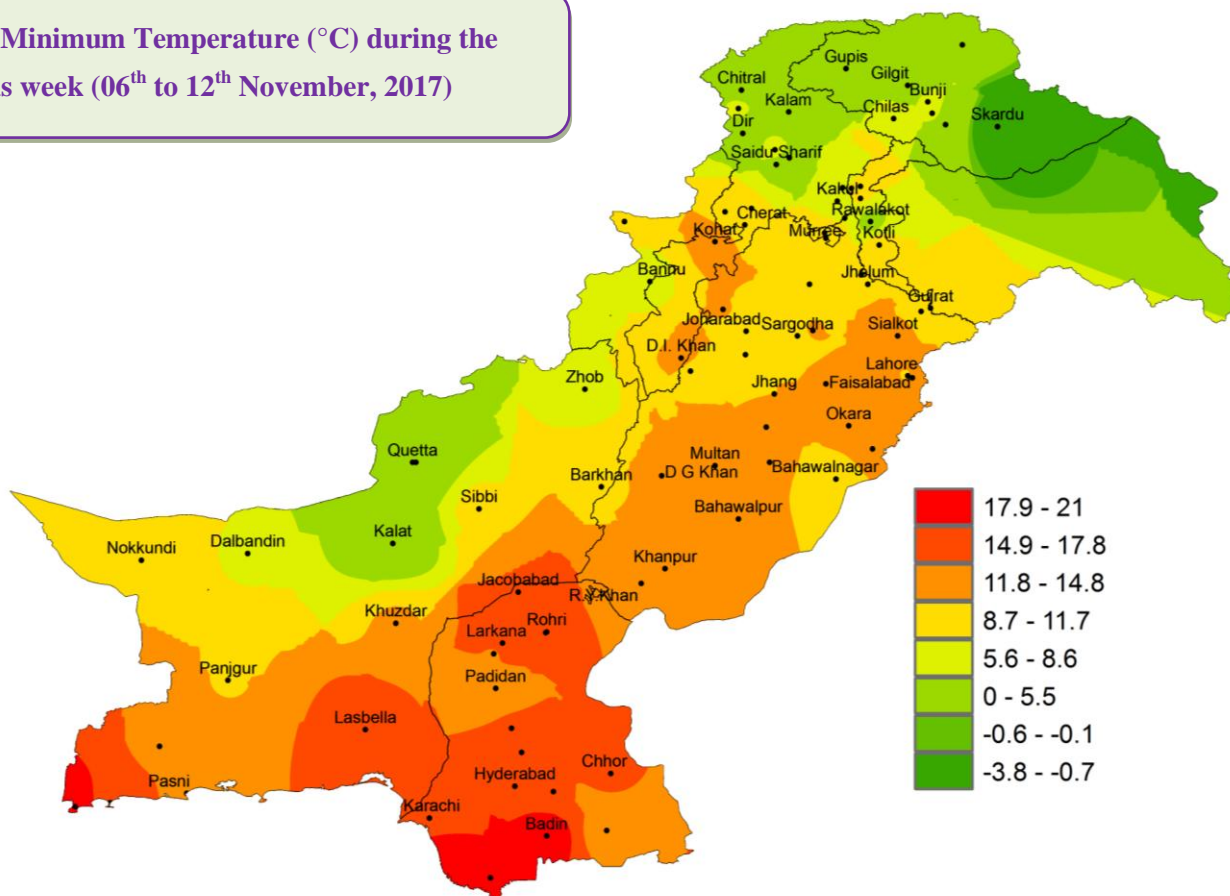
There is presently one crop (irrigated conditions) grown in the fields of RAMC Usta Muhammad.

Rice: *Harvesting in progress.*

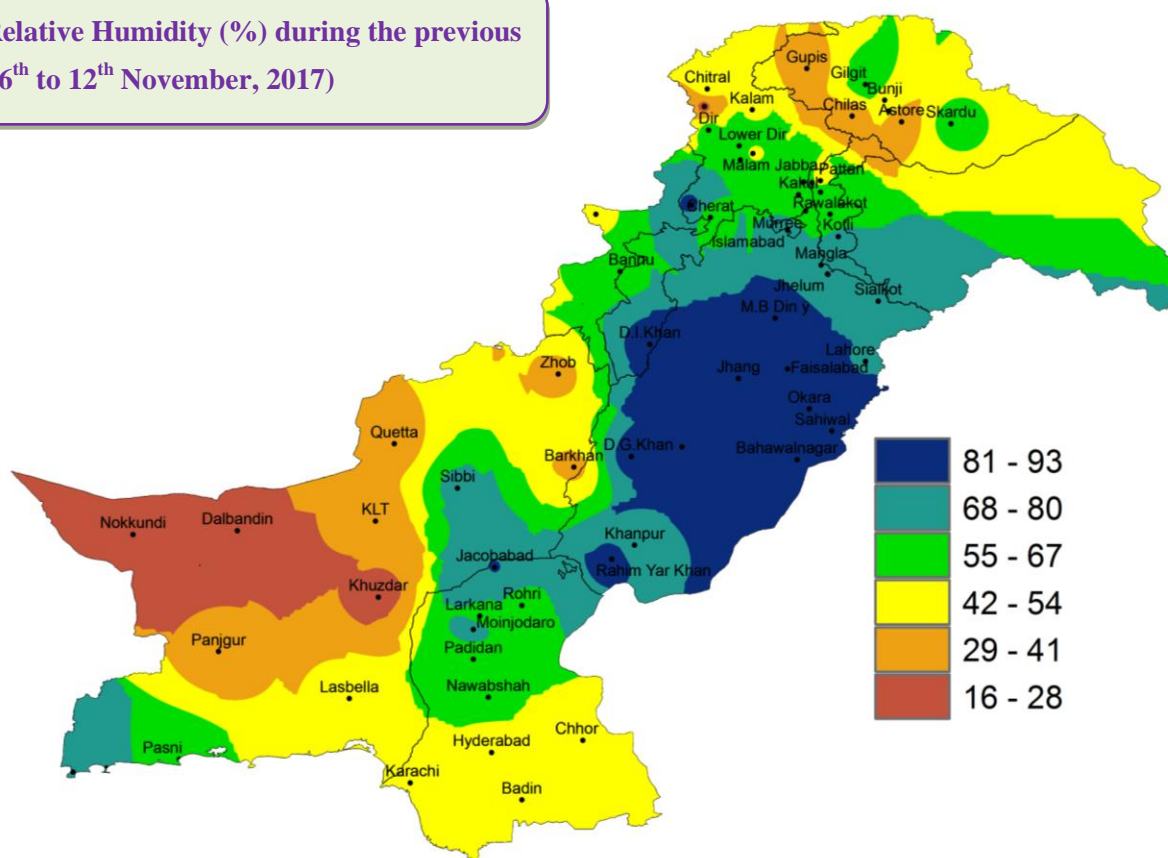
**Mean Minimum Temperature (°C) during the
Previous week (06th to 12th November, 2017)**



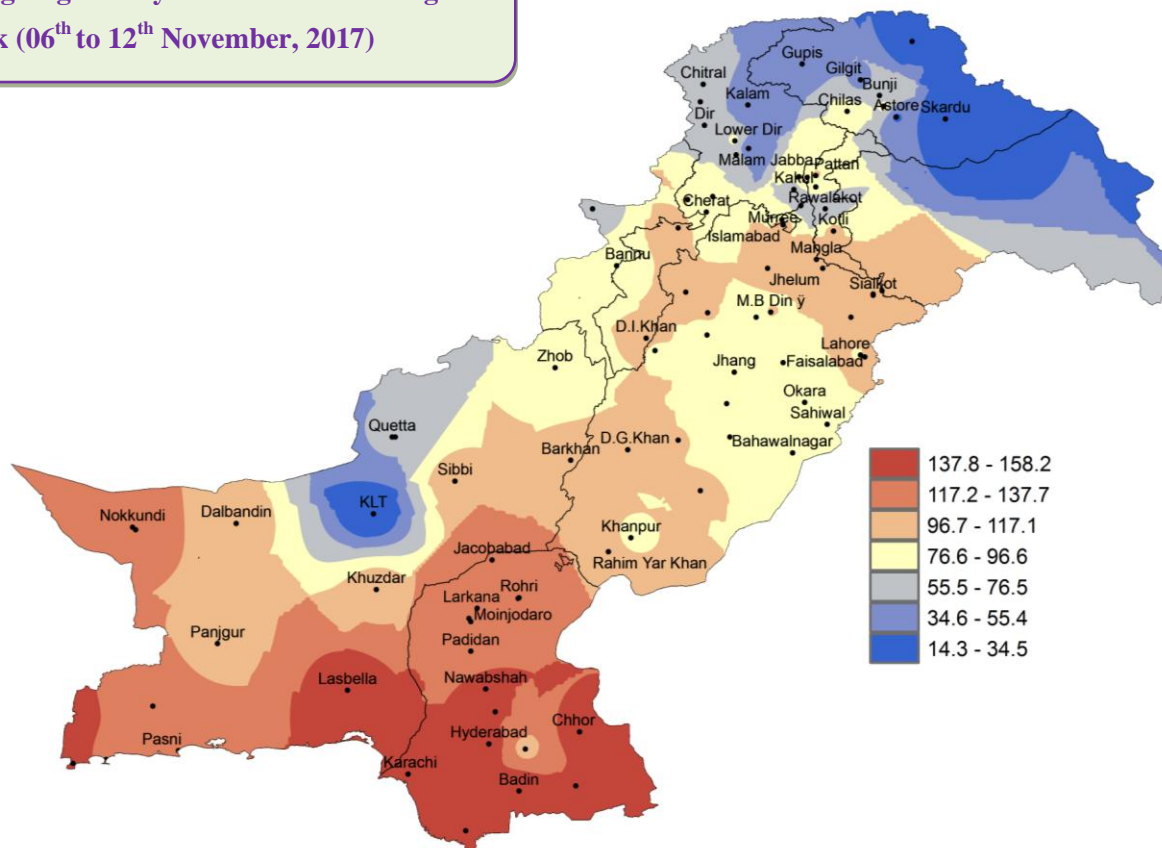
**Lowest Minimum Temperature (°C) during the
Previous week (06th to 12th November, 2017)**



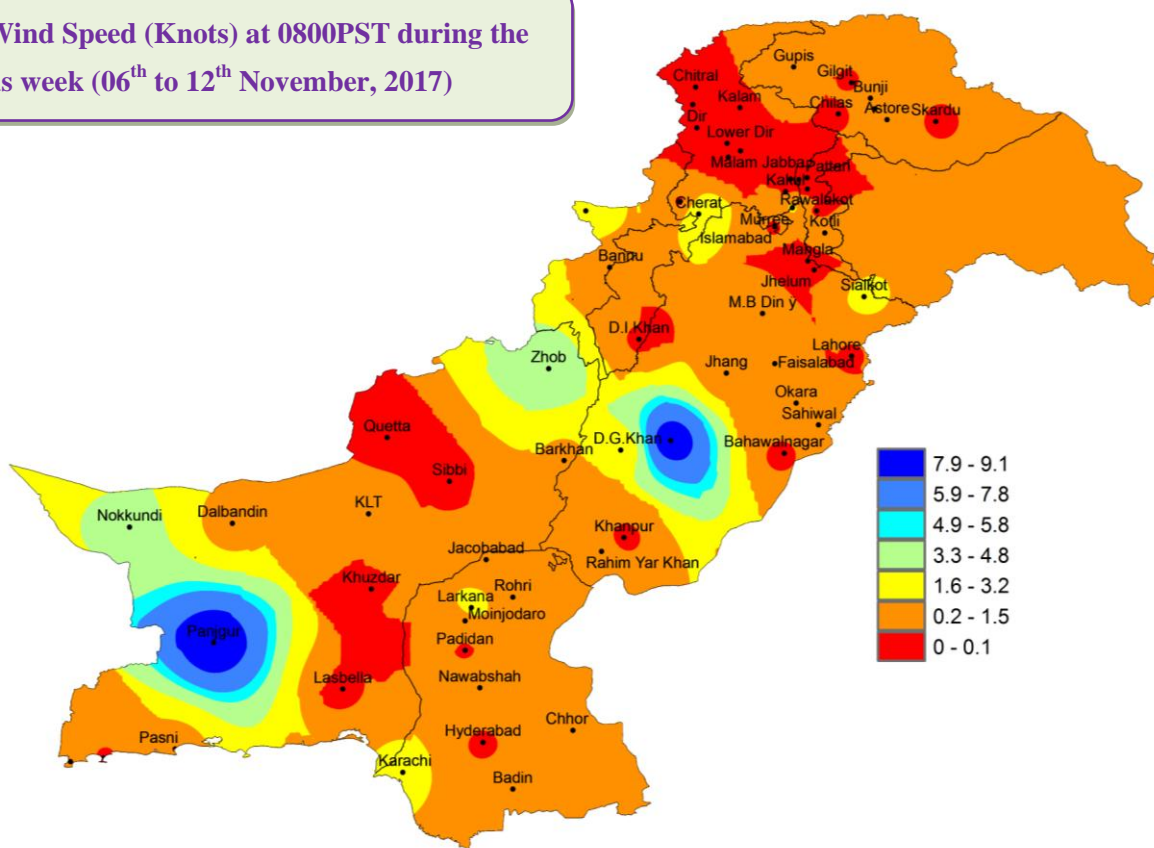
Mean Relative Humidity (%) during the previous week (06th to 12th November, 2017)



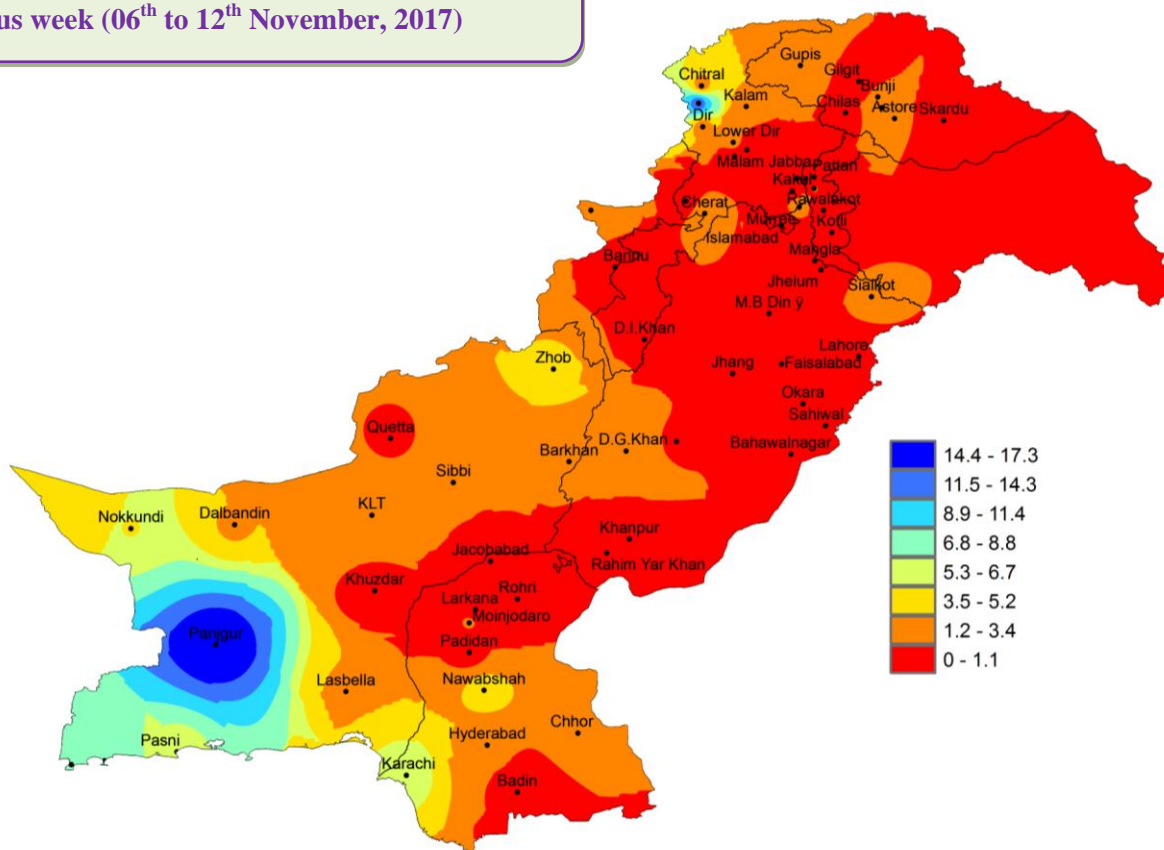
Total Growing Degree Days accumulated during the previous week (06th to 12th November, 2017)



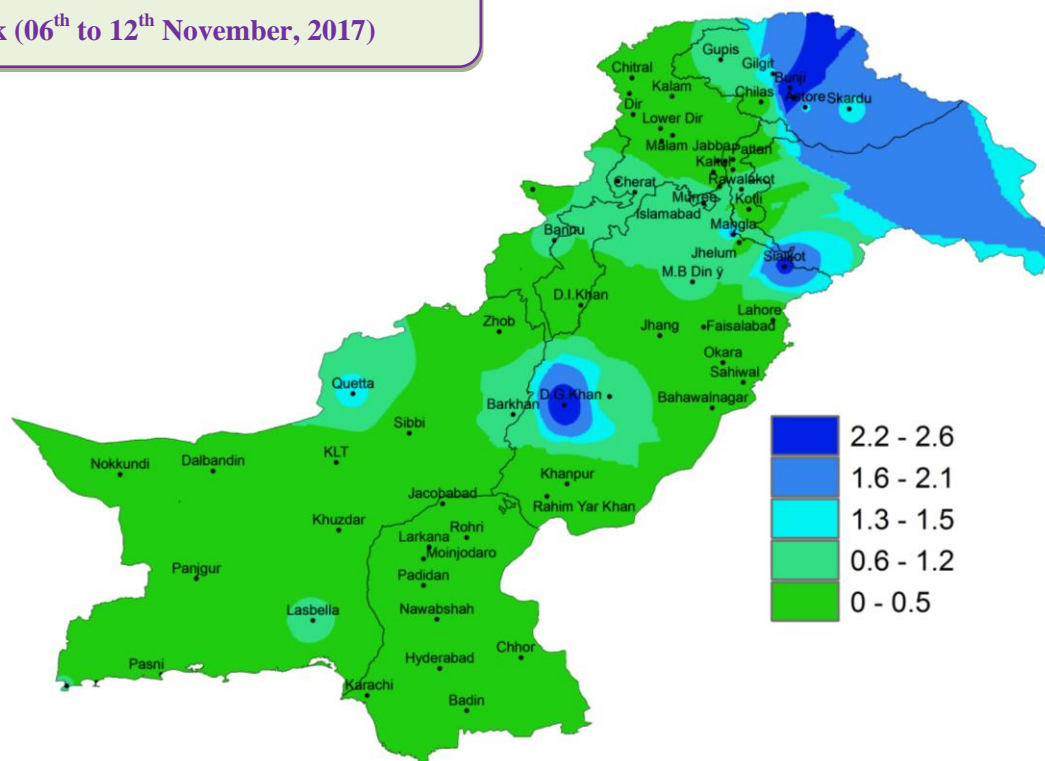
Mean Wind Speed (Knots) at 0800PST during the previous week (06th to 12th November, 2017)



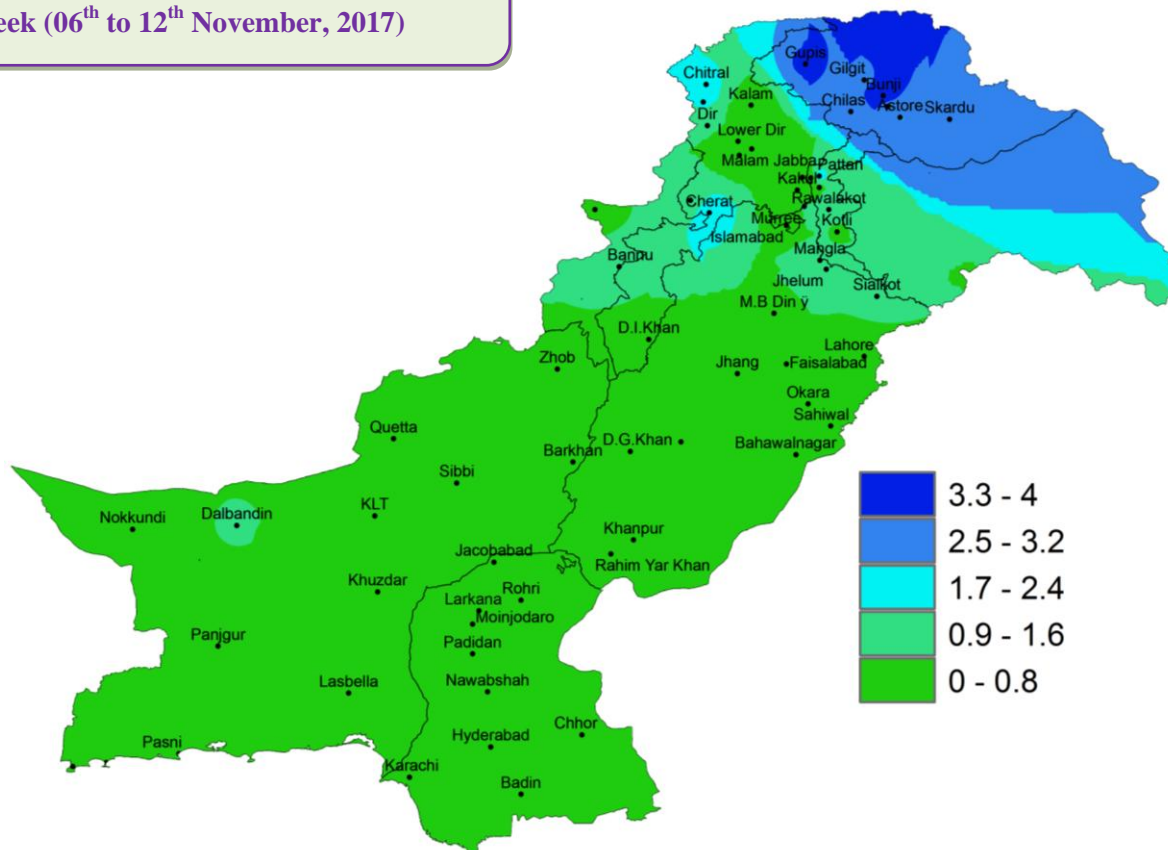
Mean Wind Speed (Knots) at 1700PST during the previous week (06th to 12th November, 2017)



Mean Cloudiness (Oktas) at 0800PST during the previous week (06th to 12th November, 2017)



Mean Cloudiness (Oktas) at 1700PST during the previous week (06th to 12th November, 2017)



Weekly Weather Advisory for Farmers **(13th to 19th November, 2017)**

A fresh westerly wave is likely to enter upper parts of the country on Sunday evening/night and likely to persist during next 3-4 days.

MONDAY

13-11-2017

Scattered rain- thunderstorm with snowfall over the hills is expected in Balochistan (Quetta, Kalat, Sibbi, Nasirabad, Zhob and Makran divisions) KP, FATA, Islamabad, upper Punjab(Rawalpindi, Lahore, Gujranwala, Faisalabad, Sahiwal divisions) Kashmir and Gilgit -Baltistan, While at isolated places in Karachi and Larkana divisions, South Punjab (Multan, D.G.Khan, Bahawalpur, divisions).Dense foggy/smoggy conditions are expected in plain areas of Punjab during Night and Morning hours.

TUESDAY

14-11-2017

Scattered rain- thunderstorm with snowfall over the hills is expected in Balochistan (Quetta , Kalat, Sibbi, Nasirabad, Zhob and Makran divisions) KP, FATA, Islamabad, upper Punjab(Rawalpindi, Lahore, Gujranwala, Faisalabad, Sahiwal divisions) Kashmir and Gilgit -Baltistan, While at isolated places in Karachi and Larkana divisions, South Punjab (Multan, D.G. Khan, Bahawalpur, divisions).

WEDNESDAY

15-11-2017

Rain-thunderstorm with snowfall over the hills is expected at scattered places in KP, FATA, upper Punjab, Gilgit-Baltistan, Kashmir and Islamabad while at isolated places in south Punjab. Foggy conditions are likely to continue over plain areas of Punjab, central and lower Khyber Pakhtunkhwa and upper Sindh.

THURSDAY

16-11-2017

Rain-thunderstorm with snowfall over the hills is expected at scattered places in KP, FATA, upper Punjab, Gilgit-Baltistan, Kashmir, and Islamabad while at isolated places in south Punjab. Foggy conditions are likely to continue over plain areas of Punjab, central and lower Khyber Pakhtunkhwa and upper Sindh.

FRIDAY

17-11-2017

Rain-thunderstorm with snowfall over the hills is expected at scattered places in upper KP, FATA, upper Punjab, Gilgit-Baltistan, Kashmir and Islamabad. Dry weather is expected in other parts of the country. Foggy conditions are likely to continue over plain areas of Punjab, central and lower Khyber Pakhtunkhwa and upper Sindh.

SATURDAY

18-11-2017

Mainly dry weather is expected in most parts of the country while rain-thunderstorm is expected at isolated places with snowfall over the hills in upper KP, Gilgit Baltistan and Kashmir. Foggy conditions are likely to continue over plain areas of Punjab, central and lower Khyber Pakhtunkhwa and upper Sindh.

SUNDAY

19-11-2017

Mainly cold and dry weather is expected in most parts of the country. However, foggy conditions are likely to continue over plain areas of Punjab, central and lower Khyber Pakhtunkhwa and upper Sindh.

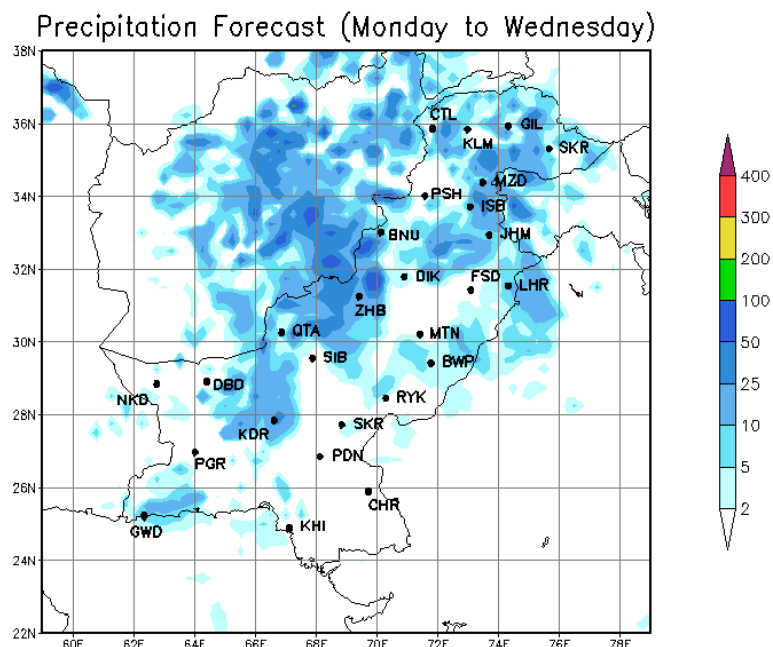
ADVISES FOR FARMERS

During the last week, mainly dry weather occurred in most parts of the agricultural plains of the country. During the next week, light to moderate rainfall is expected at most parts of the country except Sindh. Accordingly, following advises are suggested for the farming community.

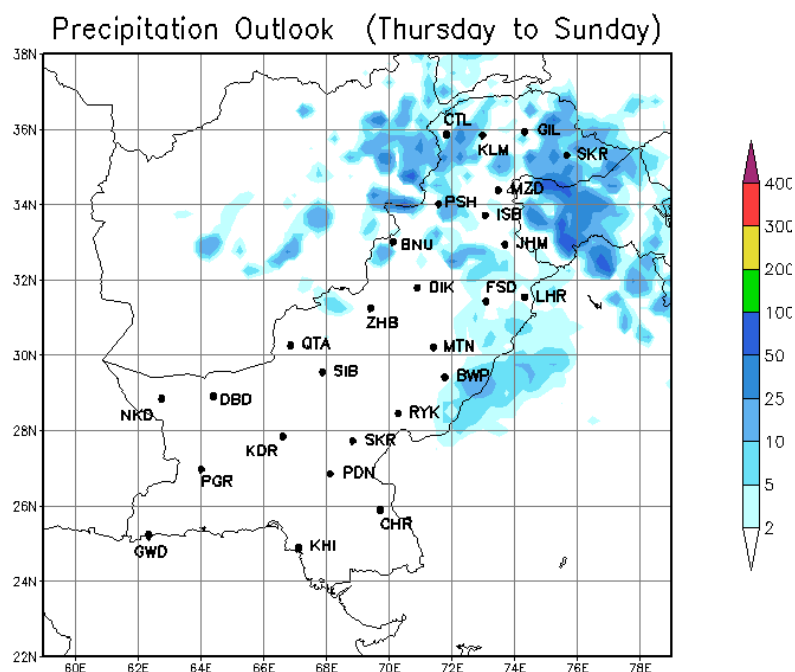
- The fields became fallow after Kharif crops may be ploughed well and *Suhaga* may better be applied to preserve the soil moisture for the upcoming Rabi crops.
- The coming rains may provide the required moisture in the field, which may be utilized to complete sowing of wheat, especially in the rain-fed areas.
- Due to expected smoggy weather conditions over the plains of upper Sindh, precautionary measures may be taken to preserve the crops and livestock.

Weather Outlook from 13th to 19th November, 2017

The outlook for the period 13th to 15th November, 2017 shows that light to moderate rainfall is expected at most parts of the country except Sindh.



The outlook for the period 16th to 19th November, 2017 shows that light rainfall is expected in Gilgit-Baltistan and Kashmir, a few places in KP while at isolated places in Punjab. Dry weather is expected to prevail in rest parts of the country.



National Weather Data of Selected Cities (06th to 12th November, 2017)

Stations	Minimum Night time 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	Lowest							
Astore	2.1	0.0	30.0	33	0.0	1.4	2.3	1.1	1.3
Badin	21.7	21.0	158.3	54	0.0	0.0	0.0	0.3	0.0
Bahawalnagar	11.6	9.5	93.3	85	0.0	0.0	0.0	0.0	0.0
Bahawalpur	14.3	12.9	99.0	89	0.0	**	0.8	0.6	0.7
Balakot	7.3	6.7	81.3	60	0.0	0.0	0.0	0.0	0.0
Bannu	8.5	7.0	86.9	63	0.0	0.6	1.2	0.3	0.0
Barkhan	11.9	11.5	102.0	38	0.0	0.6	0.7	1.1	2.0
Bunji	7.6	6.7	65.1	53	0.0	2.6	4.0	0.9	1.3
Cherat	10.9	10.0	77.5	59	0.0	1.1	2.0	2.9	2.0
Chhor	15.6	15.4	147.2	49	0.0	0.0	0.0	0.3	1.7
Chilas	9.6	8.5	85.4	32	0.0	0.0	2.5	0.0	0.7
Chitral	3.7	2.8	58.9	48	0.0	0.0	1.8	0.0	2.0
D.G.Khan	13.7	11.8	100.6	85	0.0	2.5	0.3	2.0	3.0
D.I.Khan	14.6	12.5	100.8	87	0.0	0.0	0.0	0.0	0.3
Dalbandin	9.8	8.0	108.0	25	0.0	0.3	0.8	0.7	3.0
Dir	2.6	1.5	61.5	59	0.0	0.0	0.8	0.0	2.0
Drosh	7.4	7.0	76.0	25	0.0	0.0	1.7	0.0	13.7
Faisalabad	13.9	12.5	90.4	88	0.0	**	0.0	0.6	0.0
Gari dopatta	9.0	8.6	80.0	63	0.0	0.6	0.6	0.0	1.2
Gawader	17.2	16.0	132.0	67	0.0	0.0	0.0	0.0	8.3
Gilgit	0.8	0.0	49.0	63	0.0	1.5	3.0	0.0	0.0
Gupis	1.9	1.5	39.8	36	0.0	0.8	3.3	0.7	3.0

Hyderabad	18.2	16.5	147.9	51	0.0	0.0	0.0	0.0	1.7
Islamabad	10.1	9.0	91.6	77	0.0	0.9	0.5	0.0	0.0
Jacobabad	16.3	14.9	122.5	80	0.0	0.4	0.3	0.4	0.0
Jhang	13.7	11.7	86.4	93	0.0	7.5	0.0	0.3	0.0
Jhelum	13.3	11.7	104.9	81	0.0	0.	1.0	0.0	0.0
Jiwani	21.4	20.5	150.0	74	0.0	0.6	0.5	1.1	7.7
Kakul	6.8	6.0	70.6	56	0.0	0.3	0.3	0.0	0.7
Kalam	1.3	0.0	38.8	53	0.0	0.0	0.0	0.0	1.3
Kalat	1.0	0.0	16.0	32	0.0	0.0	0.0	0.3	3.2
Karachi	18.8	17.8	150.5	52	0.0	0.0	0.3	2.0	6.3
Khanpur	13.7	13.0	91.1	76	0.0	0.0	0.3	0.0	0.0
Khuzdar	13.4	12.5	109.0	25	0.0	0.1	0.0	0.0	0.3
Kotli	11.8	11.0	101.7	68	0.0	0.0	0.7	0.3	0.0
Lahore	15.0	14.0	100.2	79	0.0	6.0	0.0	0.0	0.0
Larkana	17.6	16.5	136.4	64	0.0	0.0	0.4	2.3	0.8
Lasbella	18.0	17.0	149.8	48	0.0	0.6	0.0	0.0	3.0
Lower Dir	7.7	7.0	81.8	65	0.0	0.4	0.3	0.0	2.0
M.B Din	13.4	12.0	97.3	87	0.0	0.8	0.5	0.3	0.0
Malam Jabba	5.0	4.0	31.8	50	0.0	0.0	0.5	0.0	0.0
Mangla	12.2	11.1	103.3	71	0.0	1.8	1.2	0.0	0.7
Mir Khani	7.4	6.8	84.3	41	0.0	2.4	2.8	0.0	1.7
Moinjodaro	15.7	14.5	120.7	71	0.0	0.0	0.0	0.3	1.2
Multan(PBO)	14.8	13.0	97.5	88	0.0	1.0	0.0	9.0	0.8
Murree	9.0	8.4	63.4	55	0.0	0.5	0.8	1.7	1.7
Muzaffarabad	9.8	9.0	90.0	55	0.0	0.0	0.0	0.0	0.0
Nawabshah	16.1	15.0	141.0	55	0.0	0.0	0.0	1.4	4.7

Nokkundi	15.3	11.5	127.0	16	1.0	0.0	0.6	3.4	5.2
Okara	13.9	13.0	91.8	89	0.0	6.0	0.5	0.3	0.7
Padidan	15.1	13.0	131.8	61	0.0	0.0	0.0	0.0	0.0
Panjgur	12.4	11.5	106.3	32	0.0	0.0	0.0	9.1	17.3
Parachinar	9.7	9.0	63.5	50	0.0	0.4	0.5	3.0	3.0
Pasni	16.2	14.5	137.3	62	0.0	0.0	0.0	0.8	5.3
Pattan	10.3	9.0	99.8	50	0.0	0.0	2.2	0.0	0.8
Peshawar	12.8	11.0	97.2	83	0.0	0.6	1.2	0.0	0.3
Quetta	6.5	5.5	64.5	22	0.0	1.1	1.3	1.7	2.4
Rahim Yar Khan	14.4	12.2	114.0	83	0.0	0.0	0.0	0.3	0.0
Rawalakot	3.6	3.0	54.7	67	0.0	1.0	1.3	0.0	0.0
Rawalpindi	10.8	9.2	96.9	79	0.0	0.6	1.0	0.3	0.6
Rohri	17.6	16.5	134.8	64	0.0	0.0	0.0	0.6	0.0
Sahiwal	14.3	13.2	93.2	91	0.0	0.0	0.0	1.0	0.0
Saidu Sharif	5.2	4.7	66.6	66	0.0	0.0	0.7	0.0	0.0
Sialkot	13.2	11.5	101.7	78	0.0	3.1	1.2	1.9	1.8
Sibbi	11.8	10.5	114.3	72	0.0	0.0	0.0	0.0	2.0
Skardu	-2.9	-3.8	14.3	60	0.0	1.5	2.7	0.0	0.0
Tandojam	14.8	13.0	137.5	62	0.0	0.0	0.0	0.0	0.0
Usta. M	16.2	15.8	122.5	84	0.0	0.0	0.0	0.3	0.9
Zhob	8.6	7.0	82.3	39	0.0	0.0	0.7	4.7	4.0

*** 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)