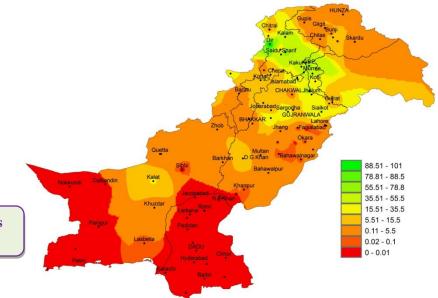
Weekly Weather and Crop Bulletin for Pakistan

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 (2nd April to 8th April, 2018)

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Patron-in-Chief: Dr. Ghulam Rasul (Director General) Editor-in-Chief: Asma Jawad Hashmi (Director) Editor: Khalida Noureen (Meteorologist)

Highlights of Past Weather (2nd April to 8th April, 2018)

Above normal night temperatures were observed all over the country.

Province wise rainfall distribution reported as follows:

- Light to moderate rainfall observed at most • places in Punjab, Gilgit-Baltistan, Azad Jammu & Kashmir and Khyber Pakhtunkhwa during the previous week.
- Light rainfall observed at scattered places in Balochistan during the previous week.
- Dry weather was observed in Sindh.

Past Weather of Provinces (2nd April to 8th April, 2018)

Punjab

Light to moderate rainfall observed at most places in Punjab during the previous week. Weekly maximum and minimum temperatures recorded as 35.4°C & 20.1°C respectively. For the recent week on average 159.3 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 51% and wind speed in the morning/evening recorded as 1.5/2.8 knots. During the previous week, highest amount of rainfall was reported as 52.7 mm at Murree & lowest minimum temperature was recorded as 8.0°C at Murree.

Balochistan

Light rainfall observed at scattered places in Balochistan during the previous week. Weekly maximum and minimum temperatures recorded as 33.8°C & 18.6°C respectively. For the recent week on average 147.3 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 42% and wind speed in the morning/evening recorded as 1.6/6.5 knots. During the previous week, highest amount of rainfall was reported as 16.0 mm at Kalat & lowest minimum temperature was recorded as 6.0°C at Panjgur.

Khyber Pakhtunkhwa

Light to moderate rainfall observed at most places in Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 29.7°C & 14.2°C respectively. For the recent week on average 122.0 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 0.8/3.4 knots. During the previous week highest amount of rainfall was reported as 101.0 mm at Dir & lowest minimum temperature was recorded as 4.0°C at Kalam.

Gilgit-Baltistan and Azad Jammu & Kashmir

Light to moderate rainfall observed at most places in Gilgit-Baltistan and Azad Jammu & Kashmir during the week. Weekly maximum and minimum temperatures recorded as 27.8°C & 11.5°C respectively. For the recent week on average 118.8 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 47% and wind speed in the morning/evening recorded as 1.0/2.9 knots. During the previous week highest amount of rainfall was reported as 62.01 mm at Garhi Dopatta and lowest minimum temperature was recorded as 2.6°C at Skardu.

Sindh

Dry weather was observed in Sindh during the previous week. Weekly maximum and minimum temperatures recorded as 39.8°C & 22.4°C respectively. For the recent week, on average 183.8 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 46% and wind speed in the morning/evening recorded as 4.8/7.1 knots. During the previous week lowest minimum temperature was recorded as 19.5°C at Mirpur Khas.

Past Weather for Major Agricultural Plains (2nd April to 8th April, 2018)

Rawalpindi (Potohar region)

Rainfall reported as 23.3 mm from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 2.3/4.0 Oktas while average relative humidity observed as 60%. Mean night time temperature recorded as 17.5°C & for the recent week 138.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.5/3.7 knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 1.6/0.3 Oktas while average relative humidity observed as 53%. Mean night time temperature recorded as 22.3°C & for the recent week 169.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.4/2.0 knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.4/0.4 Oktas while average relative humidity observed as 52%. Mean night time temperature recorded as 19.4°C & for the recent week 172.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.2/2.6 knots.

Usta Muhammad (Eastern Balochistan)

Rainfall reported as 1.0 mm from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.5/2.1 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as 22.2°C & for the recent week 180.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/2.0 knots.

Quetta (Northern Baluchistan)

Rainfall reported as Trace (not measurable) from Quetta during the week; however, cloudiness in the morning/evening recorded as 3.4/5.4 Oktas while average relative humidity observed as 29%. Mean night time temperature recorded as 16.0°C & for

the recent week 117.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.1/2.9 knots.

Past Weather for Sub-Regional Agricultural Plains (2nd April to 8th April, 2018)

Multan

Rainfall reported as 1.02 mm from Multan during week: however. cloudiness the in the morning/evening recorded as 2.2/4.3 Oktas while average relative humidity observed as 41%. Mean night time temperature recorded as 23.1°C & for the recent week 175.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.0/4.0 knots.

Lahore

Rainfall reported as 0.01 mm from Lahore during the week: however. cloudiness in the morning/evening recorded as 2.2/2.4 Oktas while average relative humidity observed as 48%. Mean night time temperature recorded as 22.7°C & for the recent week 166.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/2.3 knots.

Zhob

Rainfall reported as 5.0 mm from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/5.7 Oktas while average relative humidity observed as 32%. Mean night time temperature recorded as 14.5°C & for the recent week 129.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 5.0/5.0 knots.

Murree

Rainfall reported as 52.70 mm from Murree during week: however. cloudiness the in the morning/evening recorded as 1.8/4.9 Oktas while average relative humidity observed as 73% Mean night time temperature recorded as 10.6°C & for the recent week 75.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.0/4.3 knots.

D.I. Khan

Rainfall reported as 2.01 mm from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.0/2.7 Oktas while

average relative humidity observed as 67% Mean night time temperature recorded as 20.6°C & for the recent week 164.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.0/0.6 knots.

Peshawar

Rainfall reported as 2.51 from Peshawar during the week; however, cloudiness in the morning/evening recorded as 2.5/6.7 Oktas while average relative humidity observed as 66%. Mean night time temperature recorded as 19.7°C & for the recent week 144.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.3/1.4 knots.

Kalam

Rainfall reported as 48.0 mm from Kalam during week: however, cloudiness in the the morning/evening recorded as 2.2/5.4 Oktas while average relative humidity observed as 55%. Mean night time temperature recorded as 4.9°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 0.0/0.9 knots.

Gilgit

Rainfall reported as 5.42 mm from Gilgit during the week; However, cloudiness in the morning/evening recorded as 3.5/4.9 Oktas while average relative humidity observed as 41%. Mean night time temperature recorded as 9.9°C & for the recent week 103.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.3/6.6 knots.

Skardu

Dry weather reported from Skardu during the week; However, cloudiness in the morning/evening recorded as 3.2/4.3 Oktas while average relative humidity observed as 31%. Mean night time temperature recorded as 5.7°C. Wind speed recorded in the morning/evening as 0.0/1.7 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 in the fields of RAMC Faisalabad.

Wheat (Galaxy); Very Good, Wax Maturity stage completed in irrigated Conditions.

Lower Sindh (Tandojam)

There is presently no crop in the fields of RAMC Tandojam.

Land is being prepared for new crop.

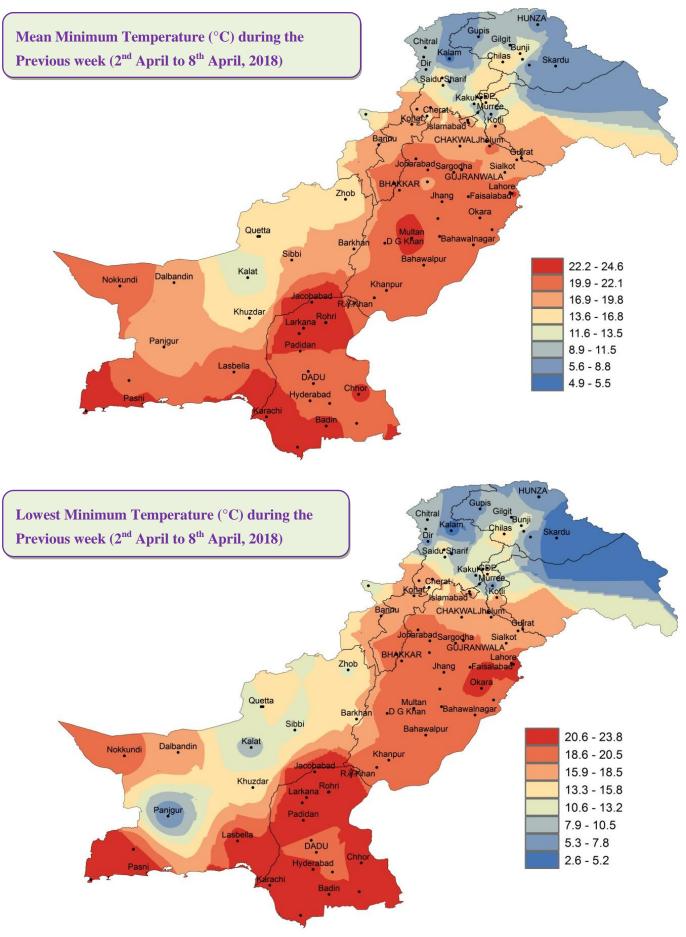
Northern Baluchistan (Quetta)

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

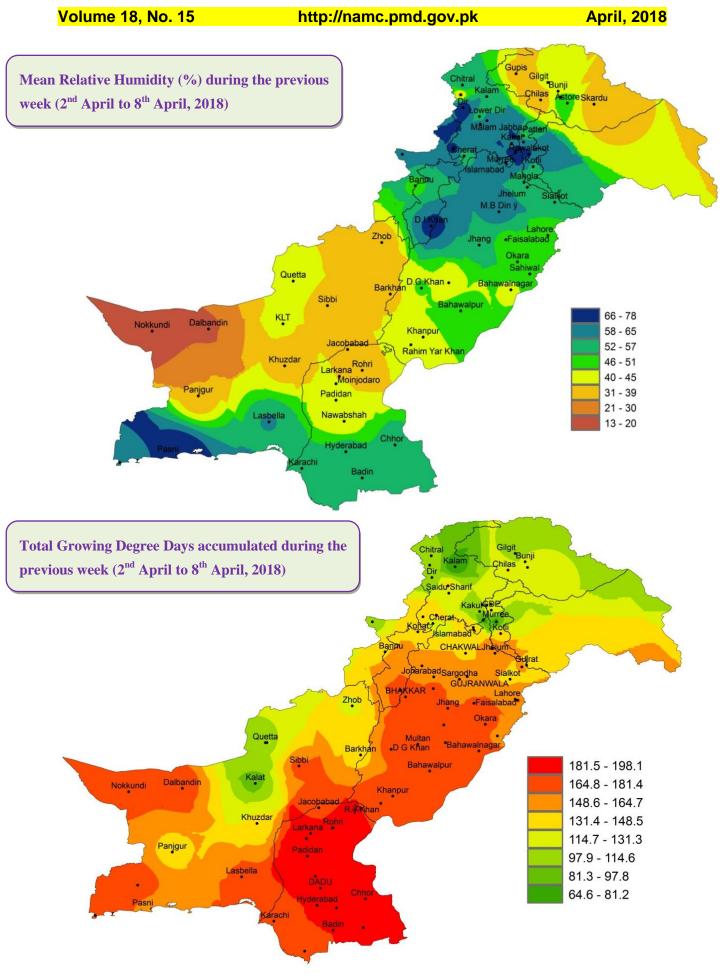
Eastern Baluchistan (Usta Muhammad)

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

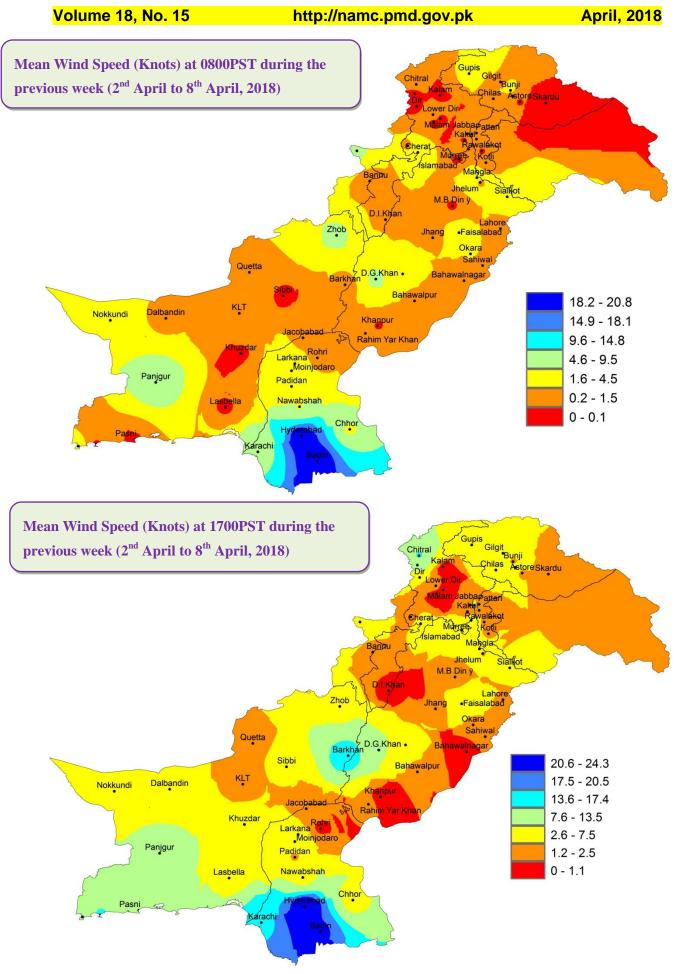
Wheat (Galaxy); Crop has been harvested.



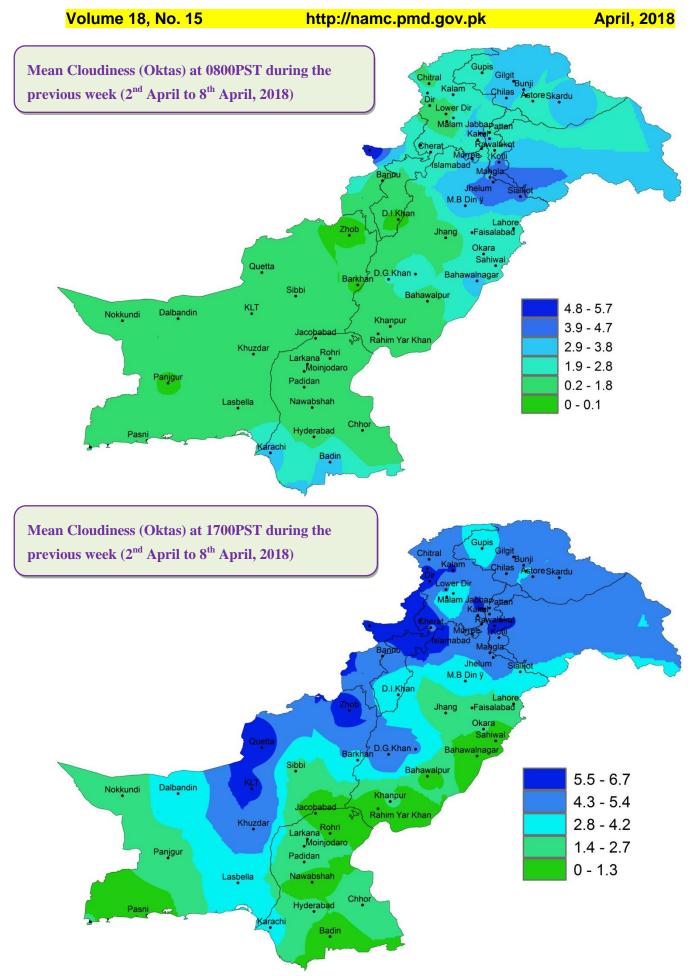
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Weekly Weather Advisory for Farmers (9th April to 15th April, 2018)

A moderate westerly wave is affecting upper and central parts of the country and likely to persist till Wednesday.

MONDAY (09-04-2018)

Rain-thunderstorm with gusty winds is expected at scattered places in upper Punjab, Islamabad, KP, FATA, Kashmir and Gilgit-Baltistan, while at Balochistan. isolated places in northeast central/southern Punjab and upper Sindh.

TUESDAY (10-04-2018)

Rain-thunderstorm with gusty winds is expected at scattered places in Rawalpindi, Lahore, Gujranwala divisions, Islamabad, upper KP, FATA, Kashmir and Gilgit-Baltistan, while at isolated places in Bannu, D.I.Khan, Sargodha, Faisalabad, Multan, D.G.Khan and Sahiwal divisions. Hot and dry weather is expected elsewhere in the country.

WEDNESDAY (11-04-2018)

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm with gusty winds is expected at isolated places in Hazara, Rawalpindi, Lahore, Gujranwala divisions, Islamabad, upper FATA, Gilgit-Baltistan and Kashmir.

THURSDAY (12-04-2018)

Mainly hot and dry weather is expected in most parts of the country. However, light rainthunderstorm is expected at isolated places in Kashmir and its adjoining hilly areas.

FRIDAY (13-04-2018)

Mainly hot and dry weather is expected in most parts of the country. However, light rainthunderstorm is expected at isolated places in Quetta, Kalat and Sibbi divisions.

SATURDAY (14-04-2018)

Mainly hot and dry weather is expected in most parts of the country. However, light rainthunderstorm is expected at isolated places in Zhob, D.I khan divisions and upper FATA.

SUNDAY (15-04-2018)

Mainly hot and dry weather is expected in most parts of the country. However, rain-thunderstorm is expected at isolated places in Kalat, Quetta, Zhob, Malakand, D.I Khan divisions, upper FATA and Gilgit-Baltistan.

ADVISES FOR FARMERS

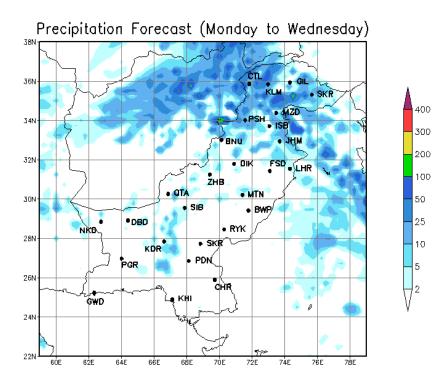
During the last week, light to moderate rainfall was observed in most of the agricultural plains of the country. In the next week Rain-thunderstorm with gusty winds may occur in the agricultural plains of the country. Accordingly, following advises are suggested for the farming community.

- Dust/sand storm may occur in areas of matured wheat crop, accordingly measures may be taken to preserve the grains and residue after harvesting.
- Wheat crop is at maturity stages in the upper half of the country, while it has been harvested in the Sindh province. Farmers are advised to schedule their harvesting by keeping in view the weather forecast.
- Crops/Nurseries may be irrigated according to the rainfall prediction.

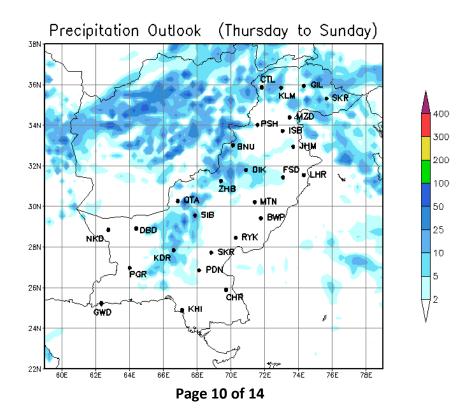
http://namc.pmd.gov.pk April, 2018

Weather Outlook from 9th April to 15th April, 2018

The outlook for the period 9th April to 11th April, 2018 shows that light to moderate rainfall is expected at scattered places in northern Punjab, GB, Kashmir and KP/FATA. Light rainfall may occur at isolated places in northern and eastern Balochistan. Dry weather is expected in the rest of the country.



The outlook for the period 12th April to 15th April, 2018 shows that light to moderate rainfall at scattered places may occur in north-eastern and eastern Balochistan, GB and KP/FATA.



National Weather Data of Selected Cities (2nd April to 8th April, 2018)

Stations	Minimum Night time Temperature (°C)		Growing Degree Days	Relative Humidity (%)	Rainfall (mm)	Cloudiness (`) 0800	Cloudiness (Oktas) 1700	Wind Speed (Knots)	Wind Speed (Knots)
	Mean	Lowest				PST	PST	0800 PST	1700 PST
Astore	6.1	5.0	***	46	5.01	2.4	4.9	0.0	2.3
Badin	23.2	23.0	181.5	52	0.00	3.2	0.3	20.8	21.2
Bahawalnagar	21.0	19.5	173.8	43	0.03	3.0	0.6	0.3	0.0
Bahawalpur	21.4	19.4	171.7	49	2.01	1.5	1.0	0.3	1.4
Balakot	13.6	12.2	110.2	68	39.40	3.5	5.9	0.0	2.0
Bannu	18.4	17.0	148.6	48	0.00	1.0	5.0	0.3	1.7
Barkhan	18.4	15.5	142.3	37	3.01	0.0	4.0	0.4	16.1
Bunji	15.2	13.3	119.2	39	1.51	3.7	5.4	2.3	2.0
Cherat	16.5	15.0	119.1	55	7.00	2.3	5.3	3.0	3.7
Chhor	22.3	21.5	184.5	53	0.00	0.7	2.0	4.0	4.9
Chilas	15.9	14.5	132.1	34	0.03	2.8	4.6	1.0	3.4
Chitral	10.0	8.7	102.0	57	2.60	1.7	4.4	0.3	14.0
D.G.Khan	21.3	20.2	169.6	46	9.90	1.8	5.3	5.0	8.4
D.I.Khan	20.6	19.5	164.8	67	2.01	0.0	2.7	1.0	0.6
Dalbandin	19.6	18.0	172.0	19	0.00	1.8	3.1	0.8	4.0
Dir	9.6	7.0	97.8	75	101.00	1.5	5.7	0.0	2.6
Drosh	11.5	10.4	112.2	36	17.90	2.2	5.6	0.0	10.6
Faisalabad	22.3	20.5	169.0	53	0.00	1.6	0.3	1.4	2.0
Garidopatta	15.6	15.0	131.3	63	62.01	3.2	4.9	1.3	2.0
Gawader	23.6	22.5	168.5	62	0.00	0.5	0.0	0.0	14.0
Gilgit	9.9	8.0	103.4	41	5.42	3.5	4.9	1.3	6.6
Gupis	8.6	7.5	***	37	1.00	2.7	3.6	2.0	4.3
Hyderabad	21.9	21.0	181.8	55	0.00	1.5	1.7	20.0	24.3

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Islamabad	16.7	15.3	136.6	59	23.00	3.3	4.9	0.0	3.1
Jacobabad	22.9	21.0	174.3	38	0.00	1.0	0.9	0.7	1.4
Jhang	20.8	18.8	165.0	54	2.80	1.0	2.0	1.0	1.1
Jhelum	20.6	18.0	161.4	54	22.82	4.2	4.6	1.0	2.3
Jiwani	24.6	23.5	167.0	63	0.00	1.0	1.6	2.3	9.4
Kakul	11.3	9.5	100.4	60	39.00	2.3	4.4	0.0	1.4
Kalam	4.9	4.0	64.5	55	48.00	2.2	5.4	0.0	0.9
Kalat	11.6	10.0	94.3	40	16.00	1.3	5.6	0.7	1.7
Karachi	24.5	23.8	170.9	54	0.00	3.0	3.1	5.0	16.0
Khanpur	20.6	19.0	175.0	45	0.01	0.8	1.6	0.0	0.6
Khuzdar	16.4	14.5	133.4	35	1.30	0.3	5.1	0.0	3.7
Kotli	18.5	17.0	144.4	56	16.00	4.0	5.0	0.3	2.3
Lahore	22.7	21.7	166.4	48	0.01	2.2	2.4	0.3	2.3
Larkana	23.6	21.0	190.1	38	0.00	1.0	2.0	3.3	3.1
Lasbella	21.8	21.0	167.8	58	0.02	1.0	3.5	0.0	6.0
Lower Dir	16.2	15.0	137.6	54	18.00	0.8	4.6	0.7	2.0
M.B Din	20.2	18.5	159.8	62	13.01	3.7	3.3	0.0	1.4
Malam Jabba	8.7	7.0	***	59	63.00	2.3	3.1	0.0	0.0
Mangla	18.4	17.2	147.9	57	45.60	3.7	4.4	4.0	4.3
Mir Khani	13.0	10.0	117.4	48	14.00	2.2	3.3	0.0	3.7
Moinjodaro	20.2	19.5	182.0	40	0.00	0.8	2.4	2.7	4.6
Multan(PBO)	23.1	20.5	175.9	41	1.02	2.2	4.3	3.0	4.0
Murree	10.6	8.0	75.9	73	52.70	1.8	4.9	1.0	4.3
Muzaffarabad	14.2	13.2	125.7	61	61.00	3.2	5.3	1.3	3.1
Nawabshah	21.4	20.5	189.0	39	0.00	0.5	0.7	4.3	5.4
Nokkundi	21.0	20.0	169.8	13	0.00	1.3	2.3	2.3	3.1

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Okara	22.1	21.5	168.5	50	0.00	2.5	1.4	1.7	1.7
Padidan	22.1	21.0	198.1	45	0.00	1.5	1.6	2.3	2.3
Panjgur	17.7	6.0	142.0	32	0.00	0.0	2.4	7.0	11.1
Parachinar	13.2	11.0	103.0	63	19.00	5.7	5.9	5.2	5.6
Pasni	22.3	21.0	154.4	78	0.00	1.4	0.7	0.0	9.0
Pattan	14.0	11.0	124.5	47	36.00	1.3	4.6	1.0	2.0
Peshawar	19.7	18.5	144.6	66	2.51	2.5	6.7	1.3	1.4
Quetta	16.0	14.8	117.6	29	0.01	3.4	5.4	3.1	2.9
Rahim Yar Khan	21.3	19.8	181.0	41	0.00	0.2	0.3	1.3	1.4
Rawalakot	8.5	6.0	75.2	65	45.80	2.2	6.0	0.0	2.3
Rawalpindi	17.5	16.0	138.3	60	23.30	2.3	4.0	0.5	3.7
Rohri	21.6	21.0	182.9	37	0.00	1.2	1.0	0.7	0.9
Sahiwal	20.6	18.5	161.8	51	2.00	2.2	0.4	0.7	2.3
Saidu Sharif	13.7	12.1	117.5	60	57.00	1.5	3.6	0.0	0.9
Sialkot	19.1	17.2	149.3	52	12.00	3.8	4.1	3.8	2.9
Sibbi	17.5	13.0	170.0	35	0.00	0.7	2.3	0.0	3.1
Skardu	5.7	2.6	***	31	0.00	3.2	4.3	0.0	1.7
Tandojam	19.4	17.0	172.5	52	0.00	0.4	0.4	1.2	2.6
Usta.M	22.2	21.0	180.2	67	1.00	0.5	2.1	0.8	2.0
Zhob	14.5	13.0	129.0	32	5.00	0.0	5.7	5.0	5.0

*** Shows that data was not available.

*Trace shows not-measurable data

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 1. the 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).
- 3. Climate Change will affect the crop yields negatively (about 17% for rice and 14 % for 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 دقت c 2.8° 2.2° 2.2° تک ہوگا۔
 - 2۔ گرمیوں کی بارش میں 25 فیصد اضافہ اور سردیوں کی بارش میں 12 فیصد تک کمی کا امکان ہے۔
 - 3۔ مندرجہ بالاموسی تغیرات کی دجہ سے دھان کی پیدادار میں 17 فیصد اور گندم کی پیدادار میں 14 فیصد تک کمی ہوسکتی ہے۔
 - 4۔ اگرموسی تغیرات کامناسب بندوبست نہ کیا گیا۔ نو کسانوں کی اکثریت کومعاشی نقصان کا سامنا کرنا پڑے گا۔

5۔ موسی تغیرات کے سدّیاب (بذریعہ نی ٹیکنالوجی کا استعال اور بہترنظم ونسق) سے غربت میں کمی اور کسانوں کی زندگی میں خوشحالی لائی جاسکتی ہے۔