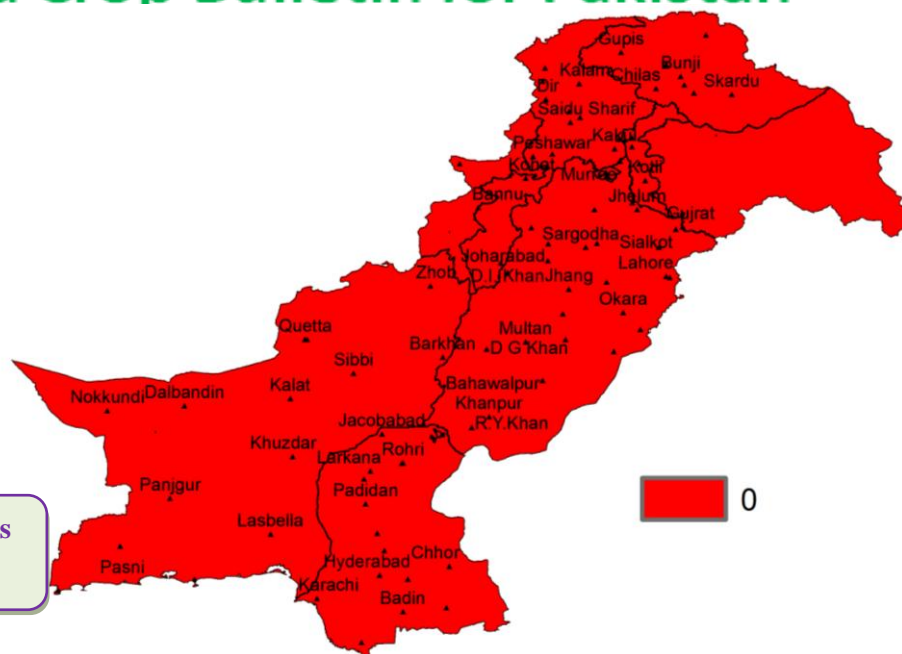


Weekly Weather and Crop Bulletin for Pakistan

**NATIONAL AGROMET
CENTRE PAKISTAN
METEOROLOGICAL
DEPARTMENT SECTOR H-8/2,
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**Rainfall Distribution (mm) during the previous
Week (8th to 14th January, 2018)**

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Highlights of Past Weather (8th to 14th January, 2018)

Below normal night time temperatures were observed in most parts of KP, Gilgit-Baltistan and Kashmir, while above in Sindh. Mix trend was observed in Punjab and Baluchistan during the previous week.

Rainfall distribution reported as follows:

- Dry weather reported from most parts of the country during the previous week.

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

Editor-in-Chief: Asma Jawad Hashmi (Deputy Director)

Editor: Dr. Dildar H. Kazmi (Meteorologist)

Past Weather of Provinces (8th to 14th January, 2018)

Punjab

Dry weather reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 22.4°C & 4.5°C respectively. For the recent week on average 59.2 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 63% and wind speed in the morning/evening recorded as 0.4/0.7 knots. During the previous week, lowest minimum temperature was recorded as -1.0°C at Murree.

Balochistan

Dry weather reported from Balochistan during the week. Weekly maximum and minimum temperatures recorded as 21.2°C & 4.8°C respectively. For the recent week on average 60.9 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 1.8/3.2 knots. During the previous week lowest minimum temperature was recorded as -7.5°C at Quetta.

Khyber Pakhtunkhwa

Dry weather reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 17.6°C & 0.7°C respectively. For the recent week on average 32.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 54% and wind speed in the morning/evening recorded as 0.6/2.2 knots. During the previous week lowest minimum temperature was recorded as -6.5°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 12.4°C & -3.0°C respectively. For the recent week on average

27.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 54% and wind speed in the morning/evening recorded as 2.0/1.3 knots. During the previous week lowest minimum temperature was recorded as -13.0°C at Skardu.

Sindh

Dry weather reported from single place of Sindh during the week. Weekly maximum and minimum temperatures recorded as 26.2°C & 9.5°C respectively. For the recent week, on average 90.1 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 57% and wind speed in the morning/evening recorded as 0.8/2.0 knots. . During the previous week lowest minimum temperature was recorded as 4.2°C at Mithi.

**Past Weather for Major Agricultural Plains
(8th to 14th January, 2018)****Rawalpindi (Potohar region)**

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 1.0/1.0 Oktas while average relative humidity observed as 70%. Mean night time temperature recorded as 1.5°C & for the recent week 46.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.6 knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.9/1.1 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as 3.7°C & for the recent week 59.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.4 knots.

Tandojam (Lower Sindh)

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 1.7/0.0 Oktas while average relative humidity observed as 57%. Mean night time temperature recorded as 7.7°C & for the recent week 82.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/1.2 knots.

Usta Muhammad (Eastern Balochistan)

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.2/0.4 Oktas while average relative humidity observed as 80%. Mean night time temperature recorded as 6.8°C & for the recent week 68.6 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.6 knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 1.0/1.1 Oktas while average relative humidity observed as 36%. Mean night time temperature recorded as -0.7°C & for the recent

week 8.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.2/2.9 knots.

**Past Weather for Sub-Regional Agricultural
Plains (8th to 14th January, 2018)****Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 1.2/1.4 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as 6.2°C & for the recent week 67.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.0 knots.

Lahore

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.8/1.6 Oktas while average relative humidity observed as 61%. Mean night time temperature recorded as 7.9°C & for the recent week 69.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.9 knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.4/0.6 Oktas while average relative humidity observed as 34%. Mean night time temperature recorded as 0.9°C & for the recent week 24.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 5.0/5.0 knots.

Murree

Dry weather reported from Murree during the week; however, cloudiness in the morning/evening recorded as 0.6/1.3 Oktas while average relative humidity observed as 41%. Mean night time temperature recorded as -0.6°C & for the recent week 9.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.0/0.9 knots.

D.I. Khan

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 0.0/0.4 Oktas while average relative

humidity observed as 65%. Mean night time temperature recorded as 4.8°C & for the recent week 56.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.9 knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.4/1.9 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as 2.0°C & for the recent week 48.8 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.1 knots.

Kalam

Dry weather reported from Kalam during the week; however, cloudiness in the morning/evening recorded as 0.8/2.7 Oktas while average relative humidity observed as 64%. Mean night time temperature recorded as -5.1°C. Wind speed recorded in the morning/evening as 0.0/0.6 knots.

Gilgit

Dry weather reported from Gilgit during the week; However, cloudiness in the morning/evening recorded as 1.0/2.9 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as -6.7°C. Wind speed recorded in the morning/evening as 0.0/0.3 knots.

Skardu

Dry weather reported from Skardu during the week; However, cloudiness in the morning/evening recorded as 4.2/4.3 Oktas while average relative humidity observed as 70%. Mean night time temperature recorded as -10.0°C. 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 in the fields of RAMC Faisalabad.

Wheat (*Galaxy*); Very Good, Tillering completed in irrigated Conditions

Lower Sindh (Tandojam)

There is presently one crop in the fields of RAMC Tandojam.

Wheat (*Sindh*); Good, at Shooting stage in irrigated Conditions

Northern Baluchistan (Quetta)

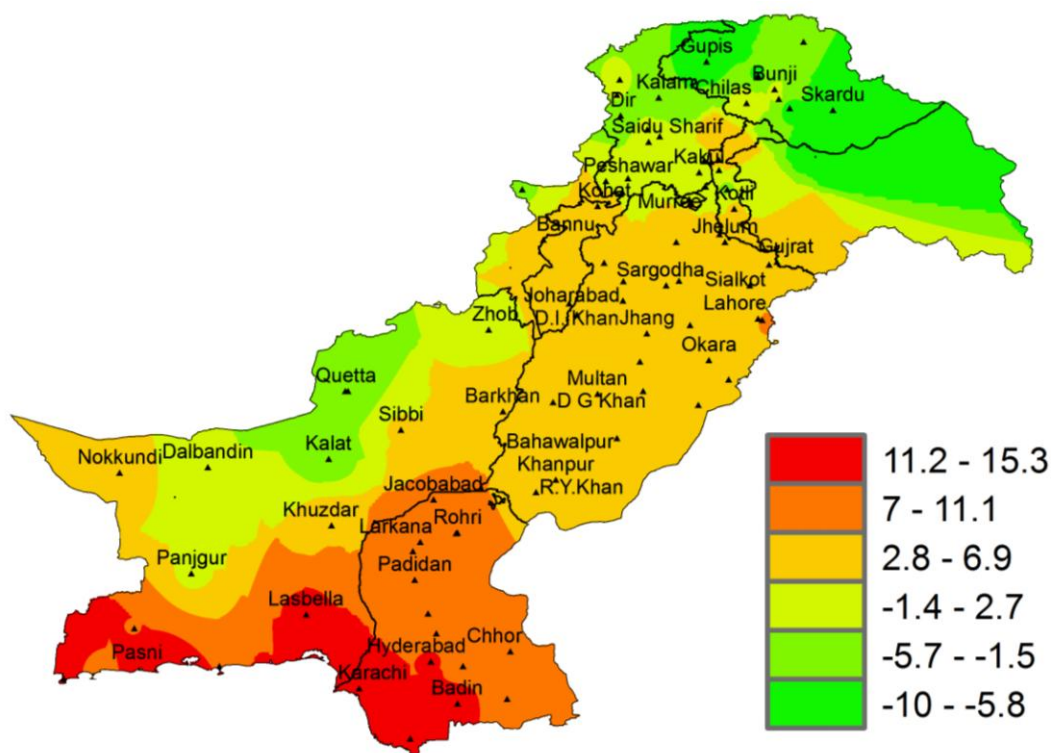
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

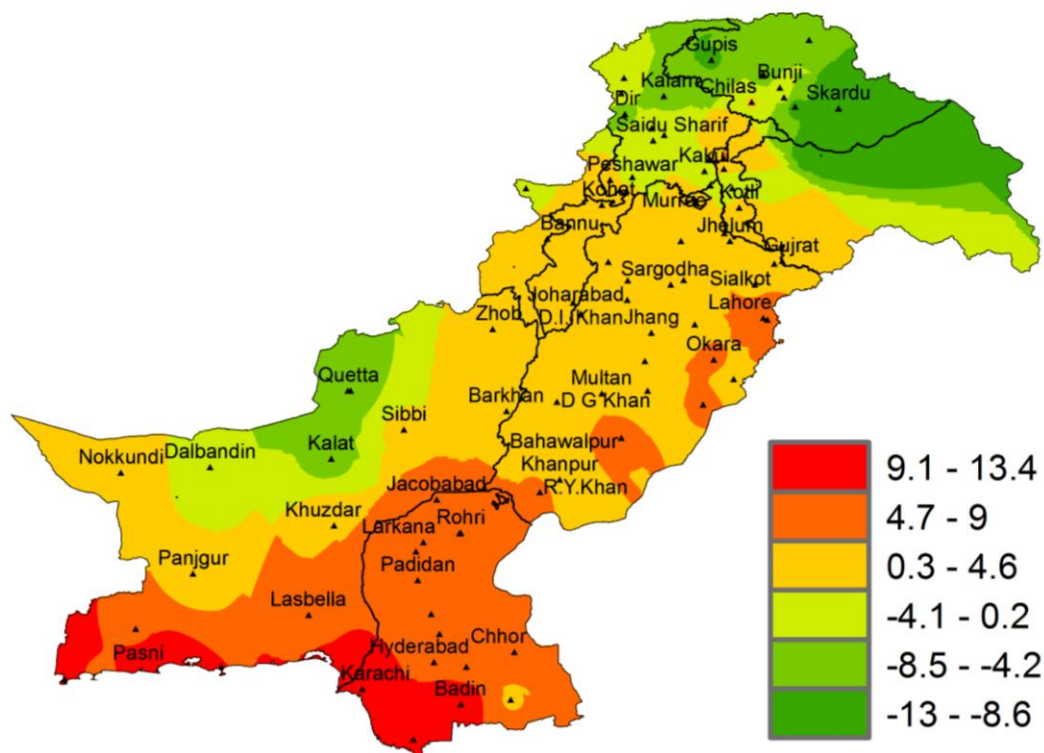
There is presently one crop grown in the fields of RAMC Usta Muhammad.

Wheat (*Galaxy*); Good, at Tillering stage in irrigated Conditions

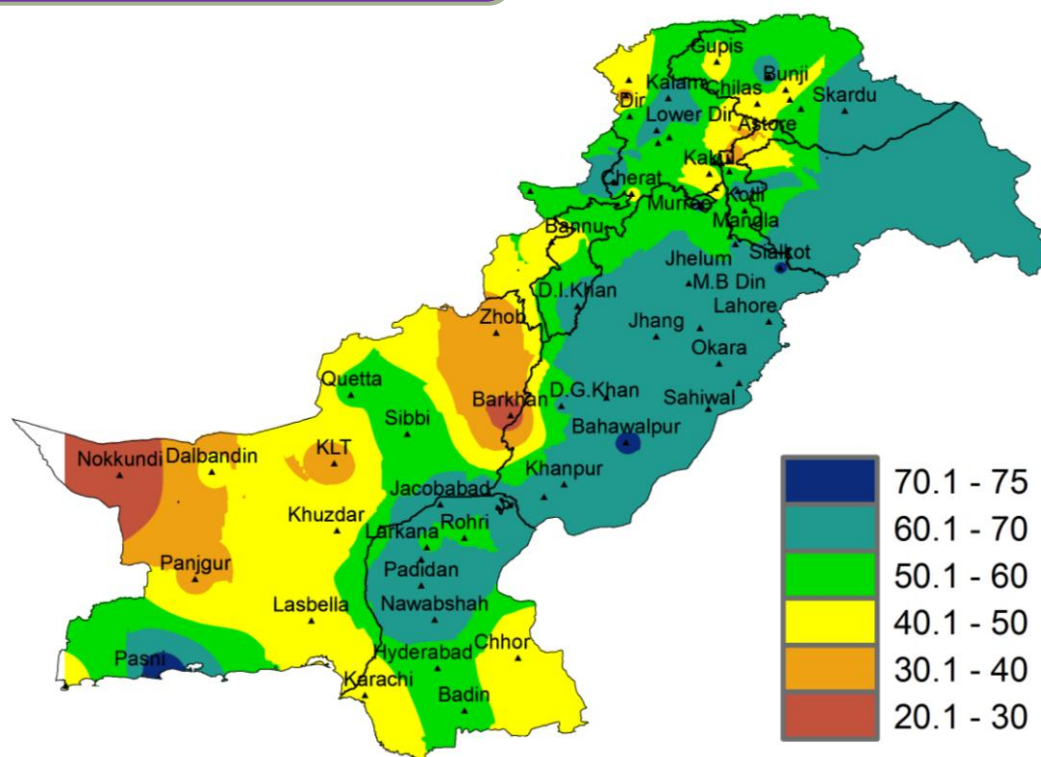
**Mean Minimum Temperature (°C) during the
Previous week (8th to 14th January, 2018)**



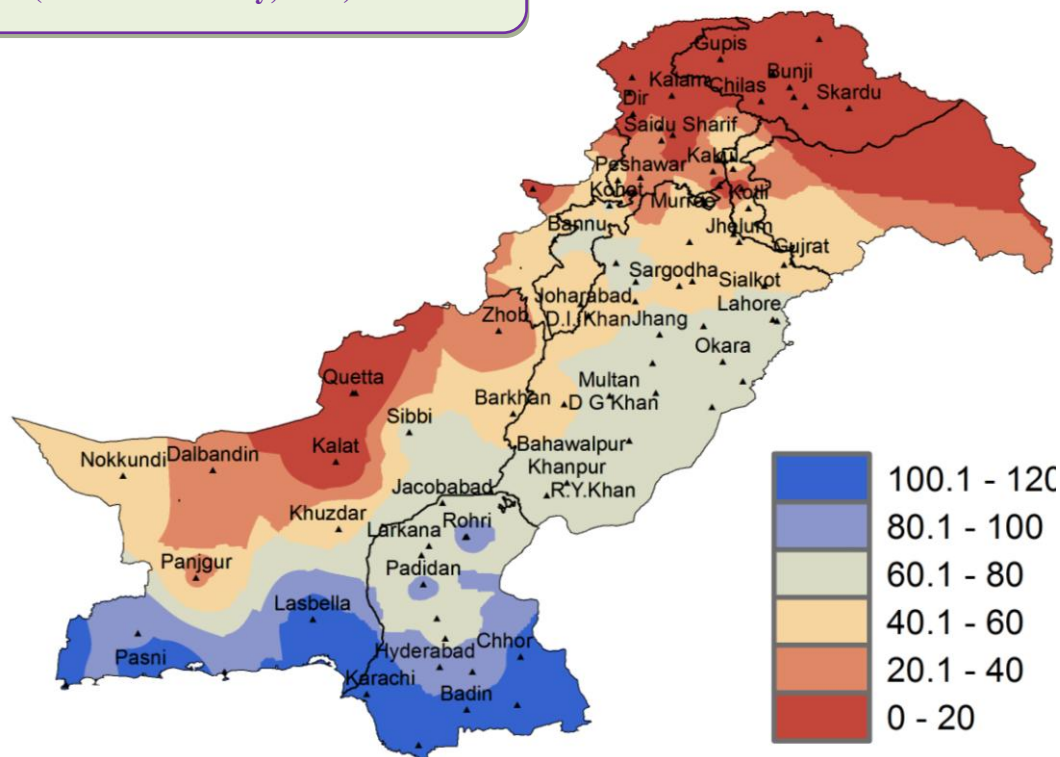
**Lowest Minimum Temperature (°C) during the
Previous week (8th to 14th January, 2018)**



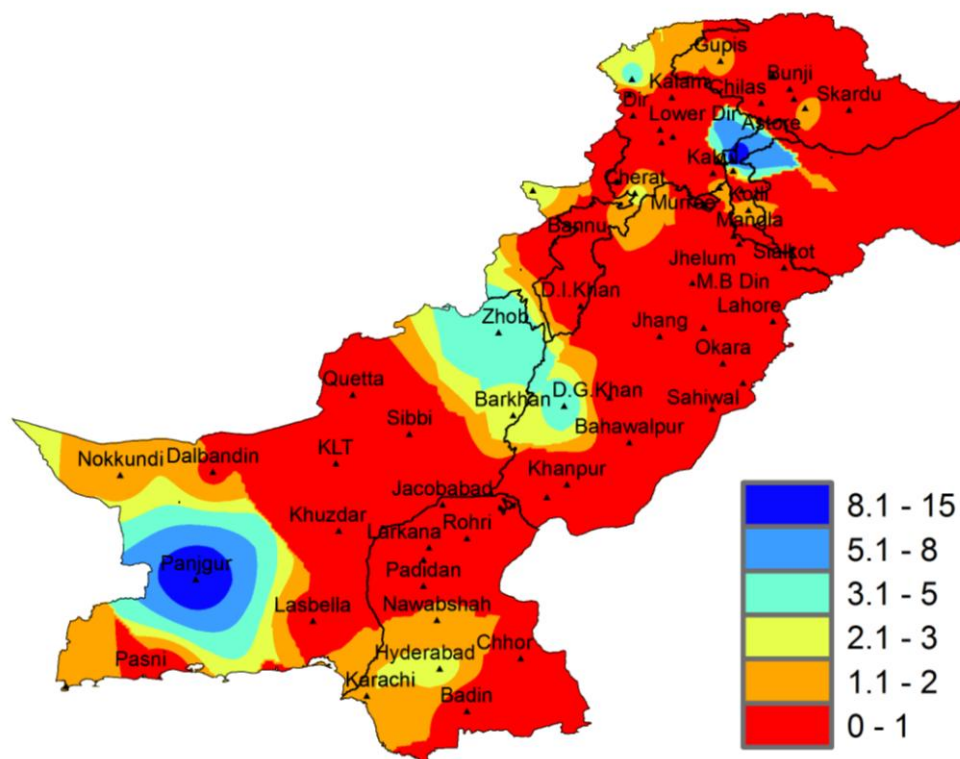
Mean Relative Humidity (%) during the previous week (8th to 14th January, 2018)



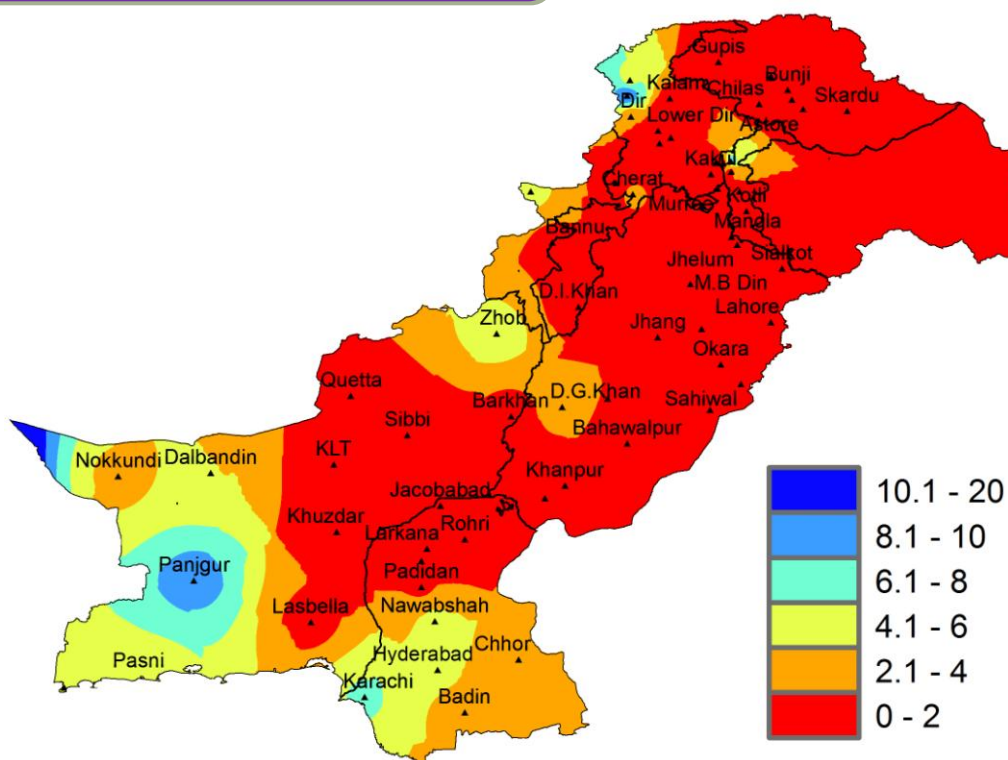
Total Growing Degree Days accumulated during the previous week (8th to 14th January, 2018)



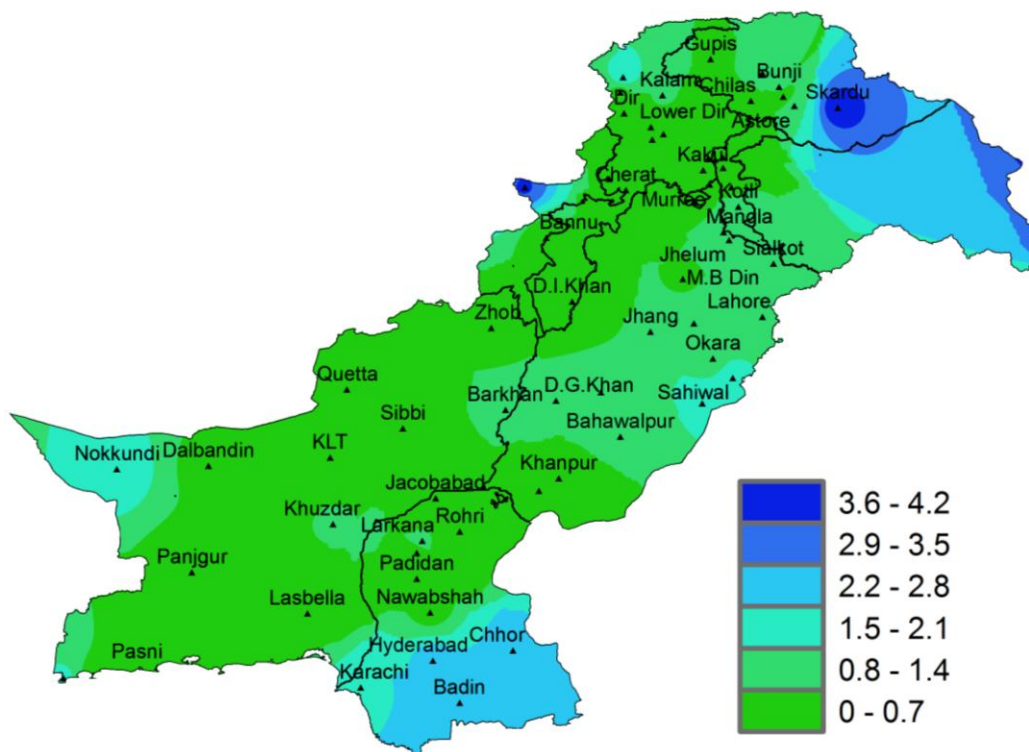
Mean Wind Speed (Knots) at 0800PST during the previous week (8th to 14th January, 2018)



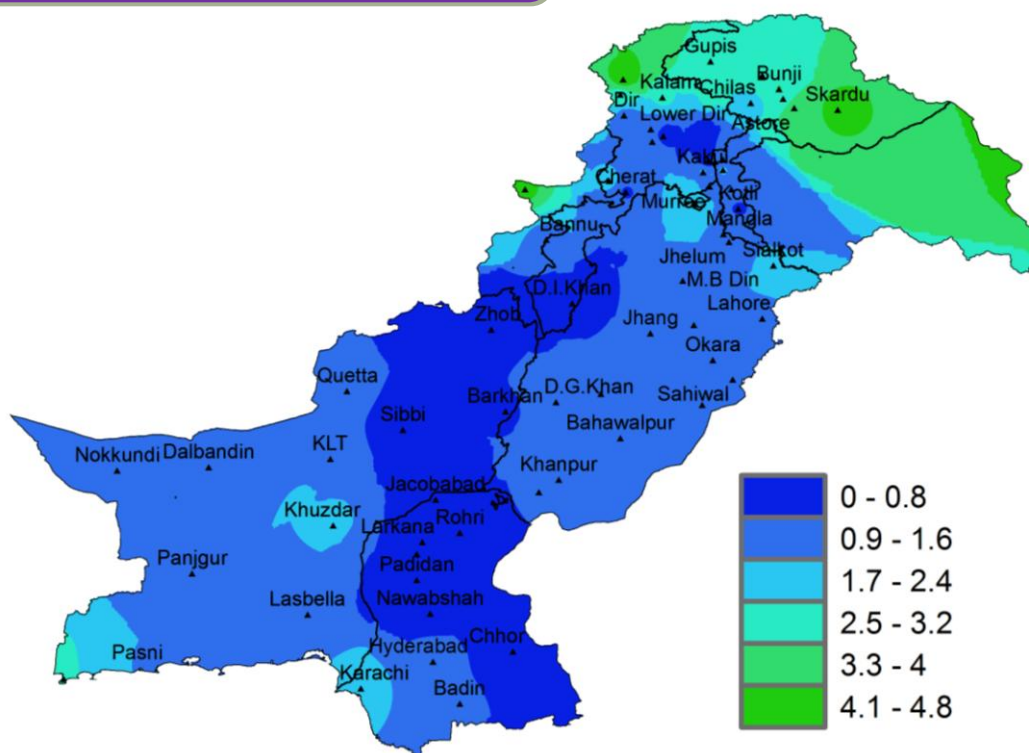
Mean Wind Speed (Knots) at 1700PST during the previous week (8th to 14th January, 2018)



Mean Cloudiness (Oktas) at 0800PST during the previous week (8th to 14th January, 2018)



Mean Cloudiness (Oktas) at 1700PST during the previous week (8th to 14th January, 2018)



Weekly Weather Advisory for Farmers
(15th to 21st January, 2018)

Continental air is prevailing over most parts of the country.

MONDAY
15-01-2018

Mainly cold and dry weather is expected in most parts of the country. However, light rain (with light snowfall over the hills) is expected at a few places in Gilgit-Baltistan. Foggy conditions are likely to prevail over few plain areas of Punjab and upper Sindh during morning hours.

TUESDAY
16-01-2018

Mainly cold and dry weather is expected in most parts of the country, while very cold weather in Northern areas including Quetta division. Foggy conditions are likely over few plain areas of Punjab and upper Sindh during morning hours.

WEDNESDAY
17-01-2018

Mainly cold and dry weather is expected in most parts of the country. However, light rain-thunderstorm (with snowfall over the hills) is expected at a isolated places in Malakand, Hazara, Mardan divisions and Gilgit Baltistan. Foggy conditions are likely over few plain areas of Punjab and upper Sindh during morning hours.

THURSDAY
18-01-2018

Mainly cold and dry weather is expected in most parts of the country. However, light rain-thunderstorm (with snowfall over the hills) is expected at a few places in Malakand division and

Gilgit-Baltistan. Foggy conditions are likely over few plain areas of Punjab and upper Sindh during morning hours.

FRIDAY
19-01-2018

Mainly cold and dry weather is expected in most parts of the country. Foggy conditions are likely over few plain areas of Punjab and upper Sindh during morning hours.

SATURDAY
20-01-2018

Mainly cold and dry weather is expected in most parts of the country, while very cold weather in Northern areas including Quetta division.

SUNDAY
21-01-2018

Mainly cold and dry weather is expected in most parts of the country. Shallow foggy conditions are likely over few plain areas of Punjab and upper Sindh during morning hours.

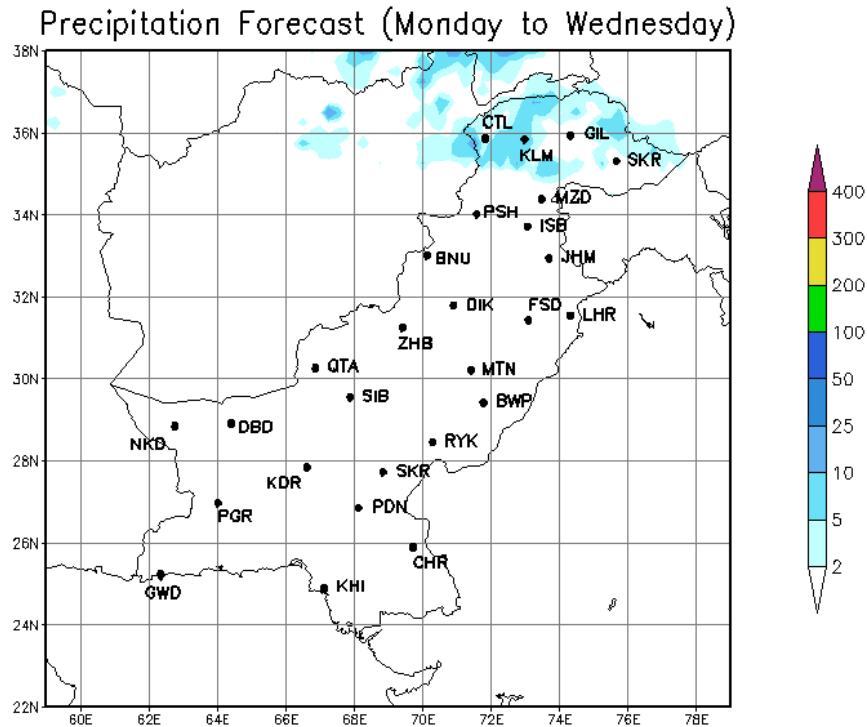
ADVISES FOR FARMERS

During the last week, no rainfall occurred at isolated parts of the country. In next week light rainfall is expected in northern parts of the country. Accordingly, following advises are suggested for the farming community.

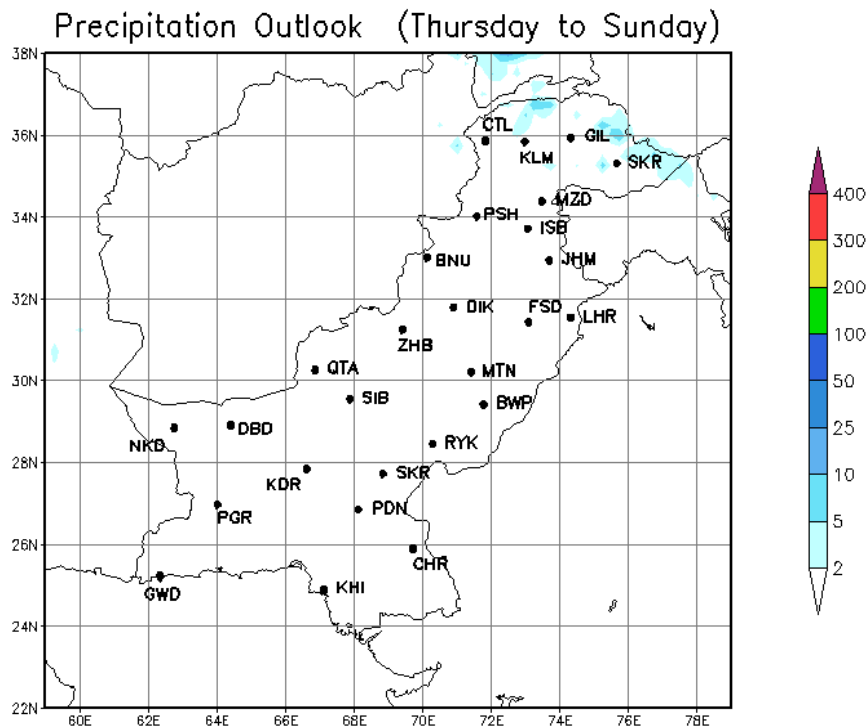
- Necessary precautionary measures may be taken to protect crops/nurseries from effects of extreme weather.
- Removal of weeds from the fields may be ensured.

Weather Outlook from 15th to 21st January, 2018

The outlook for the period 15th to 17th January, 2018 shows that dry weather may prevail in most parts of the country however light rainfall is expected at a few places in upper KP and Gilgit-Baltistan.



The outlook for the period 18th to 21st January, 2018 shows that dry weather is expected to prevail in most parts of the country however light rainfall is expected at isolated places in upper KP and Gilgit-Baltistan.



National Weather Data of Selected Cities (8th to 14th January, 2018)

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	-8.4	-11.0	***	58	0.00	1.4	3.9	1.6	0.9
Badin	13.9	12.5	108.3	51	0.00	2.8	0.9	0.0	2.9
Bahawalnagar	6.2	5.0	70.0	66	0.00	1.5	0.9	0.0	0.0
Bahawalpur	6.4	5.2	68.5	70	0.00	0.8	0.9	0.0	0.3
Balakot	0.7	0.0	37.5	53	0.00	0.0	0.0	0.0	0.0
Bannu	4.9	3.4	60.6	45	0.00	0.0	1.1	0.0	1.4
Barkhan	5.1	2.5	53.3	26	0.00	1.0	0.7	2.0	1.1
Bunji	-0.9	-2.2	0.9	43	0.00	1.0	3.3	0.4	0.6
Cherat	2.2	1.5	17.5	48	0.00	0.6	0.7	2.4	2.3
Chhor	9.1	5.5	100.8	44	0.00	2.6	0.4	0.4	2.6
Chilas	0.9	0.5	15.3	44	0.00	0.4	2.1	0.0	0.3
Chitral	-1.2	-3.2	10.7	49	0.00	2.0	4.9	4.0	5.1
D.G.Khan	4.4	3.3	57.9	61	0.00	0.8	1.3	4.0	2.9
D.I.Khan	4.8	4.0	56.1	65	0.00	0.0	0.4	0.0	0.9
Dalbandin	-0.8	-2.5	29.0	41	0.00	0.4	1.4	0.8	4.0
Dir	-4.9	-5.5	12.8	54	0.00	0.0	1.3	0.0	2.0
Drosh	-1.1	-2.7	5.0	36	0.00	0.4	2.9	0.0	10.3
Faisalabad	3.7	3.0	60.0	67	0.00	0.9	1.1	0.0	1.4
Gari dopatta	1.7	0.0	38.6	62	0.00	0.0	1.7	0.0	1.4
Gawader	9.7	8.0	95.5	50	0.00	0.4	1.9	1.2	4.6
Gilgit	-6.7	-7.5	***	67	0.00	1.0	2.9	0.0	0.3
Gupis	-8.1	-9.0	***	49	0.00	0.6	3.0	1.2	1.1

Hyderabad	12.1	8.5	99.3	55	0.00	2.5	1.0	2.5	4.6
Islamabad	1.4	0.5	44.4	62	0.00	0.4	2.3	0.0	0.3
Jacobabad	7.8	6.5	77.2	61	0.00	0.0	0.3	0.0	0.0
Jhang	4.4	2.5	63.6	69	0.00	0.8	1.0	0.0	0.0
Jhelum	2.9	1.7	57.0	64	0.00	0.8	1.4	0.0	1.1
Jiwani	15.3	13.5	110.3	47	0.00	1.6	3.1	2.0	5.7
Kakul	-0.2	-1.8	24.0	44	0.00	0.0	1.7	0.0	1.1
Kalam	-5.1	-6.5	***	64	0.00	0.8	2.7	0.0	0.6
Kalat	-4.3	-6.0	****	37	0.00	0.0	1.6	0.0	1.1
Karachi	14.2	12.2	116.2	43	0.00	1.8	2.0	2.0	6.3
Khanpur	4.5	3.5	68.9	63	0.00	0.6	1.1	0.0	0.3
Khuzdar	6.4	4.5	59.0	48	0.00	0.8	1.7	0.8	1.4
Kotli	3.5	2.0	58.5	54	0.00	1.2	0.7	1.6	0.6
Lahore	7.9	6.8	69.9	61	0.00	0.8	1.6	0.0	0.9
Larkana	7.5	6.0	75.5	58	0.00	0.8	0.6	0.0	1.1
Lasbella	12.0	8.0	106.3	47	0.00	0.0	1.1	0.4	1.4
Lower Dir	-0.8	-1.5	25.8	68	0.00	0.6	1.3	0.0	2.0
M.B Din	4.5	3.0	59.7	68	0.00	0.6	1.1	0.0	0.3
Malam Jabba	-1.0	-2.0	***	54	0.00	0.0	0.4	0.0	0.0
Mangla	3.0	1.3	57.6	51	0.00	1.0	1.4	0.8	0.0
Mir Khani	-0.9	-3.0	16.0	49	0.00	0.0	2.4	0.0	0.9
Moinjodaro	7.4	5.0	74.0	67	0.00	0.6	0.3	0.4	1.1
Multan(PBO)	6.2	4.5	67.3	67	0.00	1.2	1.4	0.0	2.0
Murree	-0.6	-1.0	9.5	41	0.00	0.6	1.3	2.0	0.9
Muzaffarabad	2.7	1.5	40.0	56	0.00	0.0	1.1	1.2	0.3
Nawabshah	7.1	6.0	79.5	63	0.00	0.4	0.7	1.2	4.6

Nokkundi	4.8	3.5	52.3	20	0.00	2.0	0.9	1.6	3.4
Okara	6.9	5.0	68.3	70	0.00	1.2	1.3	0.8	0.3
Padidan	8.3	6.5	81.3	67	0.00	0.6	0.3	0.8	1.7
Panjgur	1.8	1.0	37.8	39	0.00	0.0	1.1	10.0	8.9
Parachinar	-2.6	-3.0	6.4	58	0.00	3.6	4.3	3.0	4.7
Pasni	14.1	13.5	117.8	74	0.00	0.0	1.3	0.0	5.3
Pattan	6.6	6.0	55.3	22	0.00	0.0	1.1	15.6	8.1
Peshawar	2.0	1.0	48.8	67	0.00	0.4	1.9	0.0	1.1
Quetta	-0.7	-3.0	8.4	36	0.00	0.2	0.4	0.0	0.6
Rahim Yar Khan	5.6	5.1	73.3	63	0.00	0.0	0.9	0.0	0.3
Rawalakot	-2.5	-3.7	12.6	64	0.00	0.4	1.3	0.0	0.9
Rawalpindi	1.5	0.5	46.2	70	0.00	1.0	1.0	0.0	0.6
Rohri	7.9	7.0	79.8	60	0.00	0.0	0.0	0.0	0.0
Sahiwal	5.0	3.6	61.1	67	0.00	1.6	1.6	0.0	0.9
Saidu Sharif	0.1	-1.5	25.4	58	0.00	0.0	1.3	0.0	0.0
Sialkot	4.4	2.9	52.0	70	0.00	1.0	1.7	0.0	0.3
Sibbi	3.4	2.0	64.5	56	0.00	0.0	0.0	0.0	0.0
Skardu	-10.0	-13.0	***	70	0.00	4.2	4.3	0.0	0.0
Tandojam	7.7	5.0	82.8	57	0.00	1.7	0.0	0.8	1.2
Usta. M	6.8	6.5	69.0	80	0.00	0.2	0.4	0.0	0.6
Zhob	0.9	0.5	24.5	34	0.00	0.4	0.6	5.0	5.0

*** Shows that data was not available.

*Trace shows not-measurable data

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)