

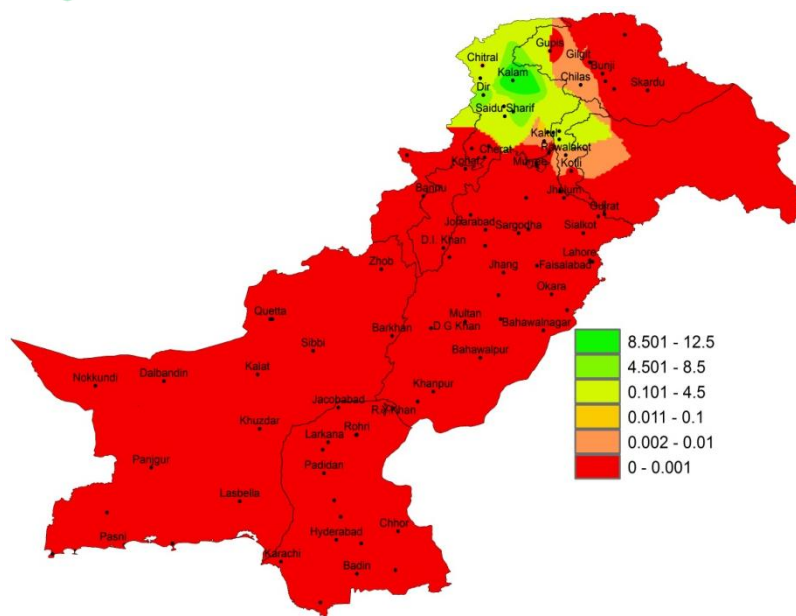
Weekly Weather and Crop Bulletin for Pakistan

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PAKISTAN METEOROLOGICAL
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**Rainfall Distribution (mm) during the previous
Week (15th to 21st January, 2018)**



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Highlights of Past Weather (15th to 21st January, 2018)

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

Province wise rainfall distribution reported as follows:

- Light rainfall observed at scattered places in Khyber Pakhtunkhwa, Gilgit-Baltistan and Azad Jammu Kashmir during the previous week.
- Dry weather reported from rest of the country during the previous week.

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

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

Editor: Khalida Noureen (Meteorologist)

Past Weather of Provinces (15th to 21st January, 2018)**Punjab**

Dry weather reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 23.3°C & 5.3°C respectively. For the recent week on average 65.1 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 61% and wind speed in the morning/evening recorded as 0.8/2.0 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 22.4°C & 4.3°C respectively. For the recent week on average 62 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 44% and wind speed in the morning/evening recorded as 1.5/4.2 knots. During the previous week lowest minimum temperature was recorded as -6.5°C at Quetta.

Khyber Pakhtunkhwa

Light rainfall reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 18.1°C & 1.3°C respectively. For the recent week on average 38.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 51% and wind speed in the morning/evening recorded as 1.3/3.3 knots. During the previous week highest amount of rainfall was reported as 13 mm at Kalam & lowest minimum temperature was recorded as -8.0°C at Kalam.

Gilgit-Baltistan and Azad Jammu & Kashmir

Traces were reported from Kashmir and Gilgit-Baltistan during the week. Weekly maximum and minimum temperatures recorded as 13.4°C & -1.9°C respectively. For the recent week on average 32.8 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 55% and wind speed in the morning/evening recorded as 1.5/1.4 knots. During the previous week highest amount of rainfall was reported as 0.01 mm at Chilas and Rawalakot & lowest minimum temperature was recorded as -9.0°C at Skardu.

Sindh

Dry weather reported from single place of Sindh during the week. Weekly maximum and minimum temperatures recorded as 27.0°C & 9.4°C respectively. For the recent week, on average 92.0 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 56% and wind speed in the morning/evening recorded as 0.8/2.4 knots. During the previous week lowest minimum temperature was recorded as 3.5°C at Moin-jo-Daro.

**Past Weather for Major Agricultural Plains
(15th to 21st January, 2018)****Rawalpindi (Potohar region)**

Dry weather reported from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 0.7/0.3 Oktas while average relative humidity observed as 68%. Mean night time temperature recorded as 2.3°C & for the recent week 61.9 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/1.7 knots.

Faisalabad (Central Punjab)

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.7/0.3 Oktas while average relative humidity observed as 63%. Mean night time temperature recorded as 4.8°C & for the recent week 66.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.2/1.1 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 59%. Mean night time temperature recorded as 9.2°C & for the recent week 89.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.2/2.2 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 56%. Mean night time temperature recorded as 7.2°C & for the recent week 80.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.0 knots.

Quetta (Northern Baluchistan)

Dry weather reported from Quetta during the week; however, cloudiness in the morning/evening recorded as 0.7/0.1 Oktas while average relative humidity observed as 22%. Mean night time temperature recorded as -0.8°C & for the recent

week 17.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.2/3.1 knots.

**Past Weather for Sub-Regional Agricultural
Plains (15th to 21st January, 2018)****Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.6/0.9 Oktas while average relative humidity observed as 61%. Mean night time temperature recorded as 6.8°C & for the recent week 72.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/4.9 knots.

Lahore

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 0.6/0.0 Oktas while average relative humidity observed as 61%. Mean night time temperature recorded as 8.3°C & for the recent week 74.4 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/2.6 knots.

Zhob

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while average relative humidity observed as 28%. Mean night time temperature recorded as 0.8°C & for the recent week 24.8 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 2.0/1.1 Oktas while average relative humidity observed as 44%. Mean night time temperature recorded as 2.8°C & for the recent week 23.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.9/2.0 knots.

D.I. Khan

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

humidity observed as 57%. Mean night time temperature recorded as 4.8°C & for the recent week 71.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.6/0.3 knots.

Peshawar

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 1.7/0.9 Oktas while average relative humidity observed as 62%. Mean night time temperature recorded as 2.8°C & for the recent week 58.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.9/2.6 knots.

Kalam

Rainfall reported as 13.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.1/3.6 Oktas while average relative humidity observed as 69%. Mean night time temperature recorded as -5.6°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 3.7/3.7 Oktas while average relative humidity observed as 64%. Mean night time temperature recorded as -4.1°C. 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 4.6/4.9 Oktas while average relative humidity observed as 66%. Mean night time temperature recorded as -7.1°C. Wind speed recorded in the morning/evening as 0.0/1.4 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 (*Sindhu*); Good, at Heading stage in irrigated Conditions

Northern Baluchistan (Quetta)

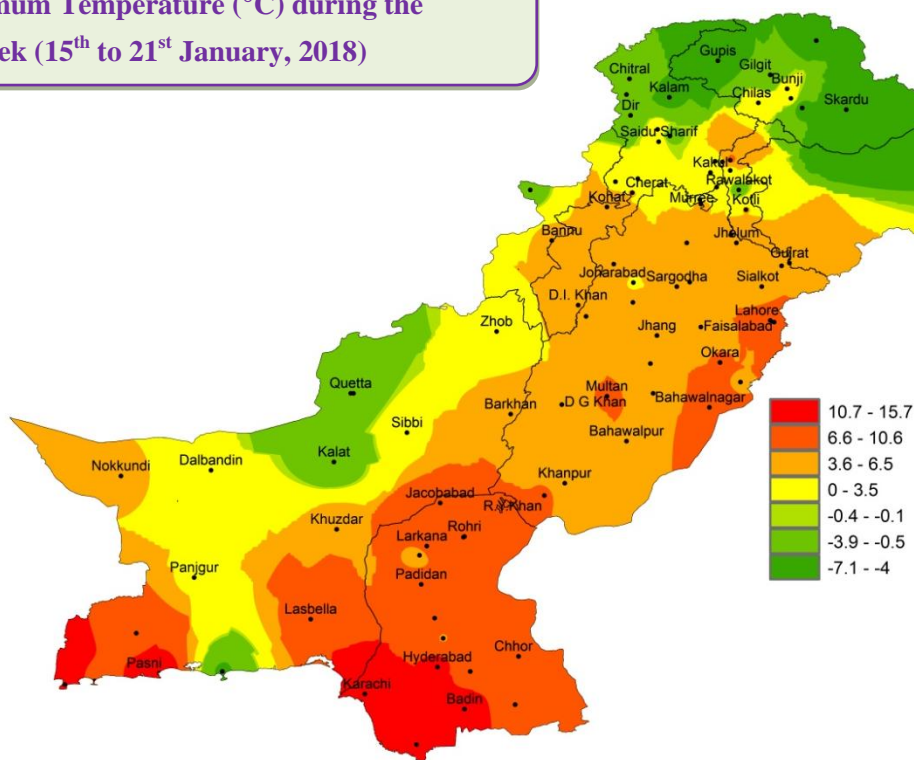
There is presently no crop grown in the fields of RAMC Quetta.

Eastern Baluchistan (Usta Muhammad)

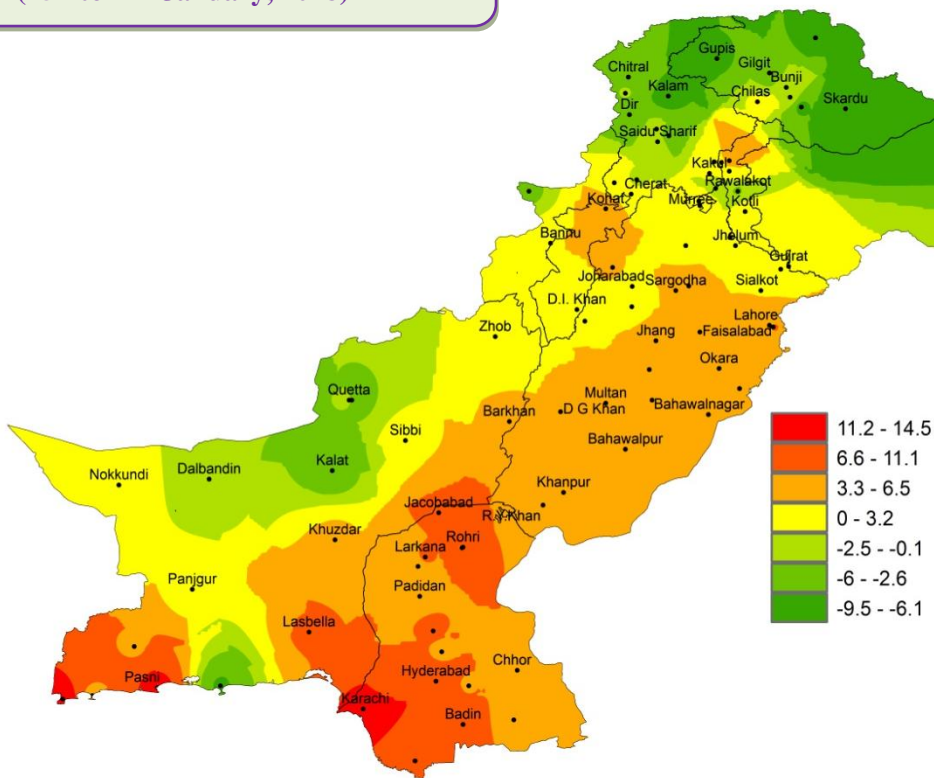
There is presently one crop grown in the fields of RAMC Usta Muhammad.

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

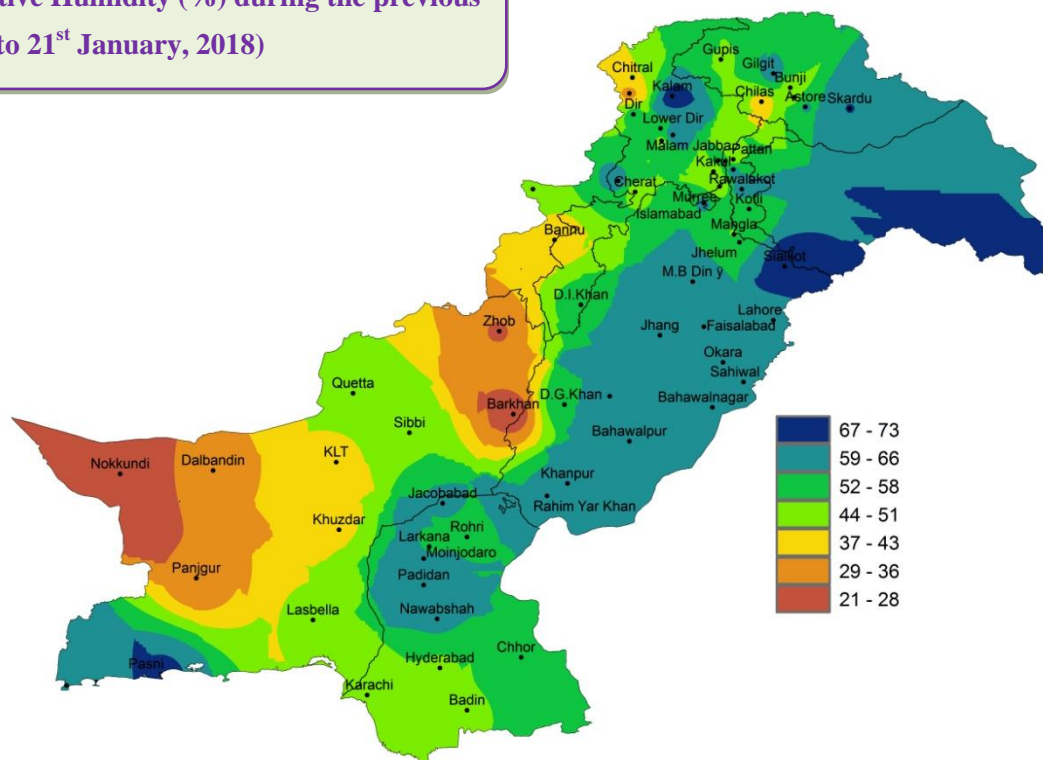
**Mean Minimum Temperature (°C) during the
Previous week (15th to 21st January, 2018)**



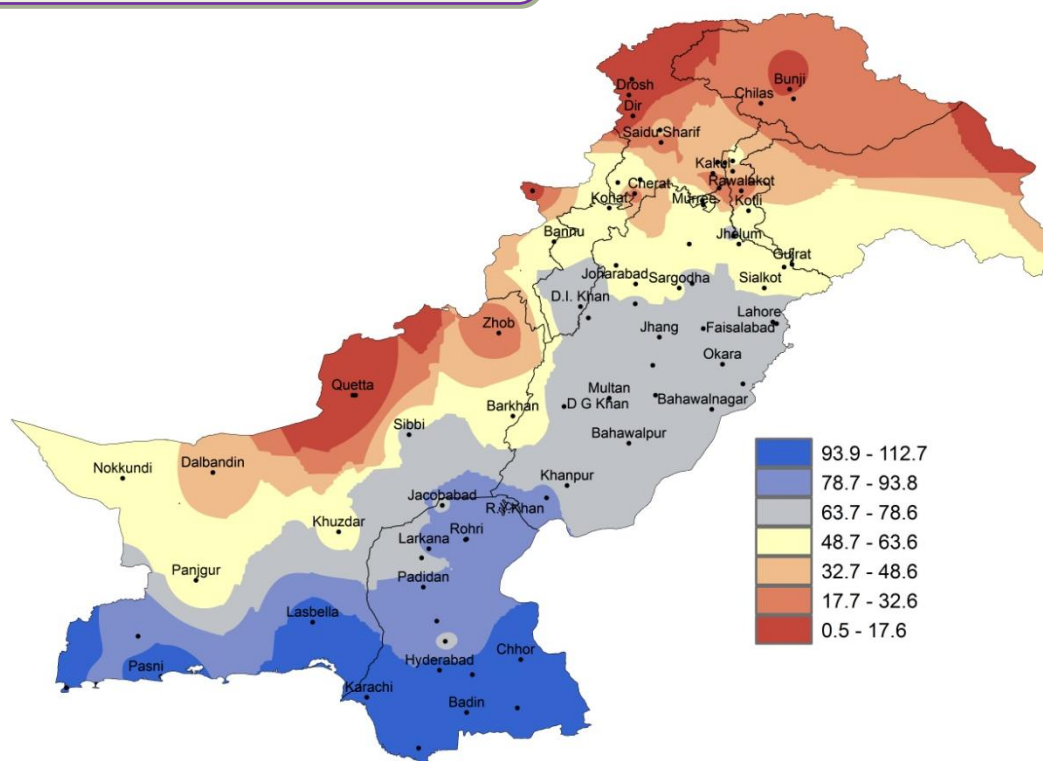
**Lowest Minimum Temperature (°C) during the
Previous week (15th to 21st January, 2018)**



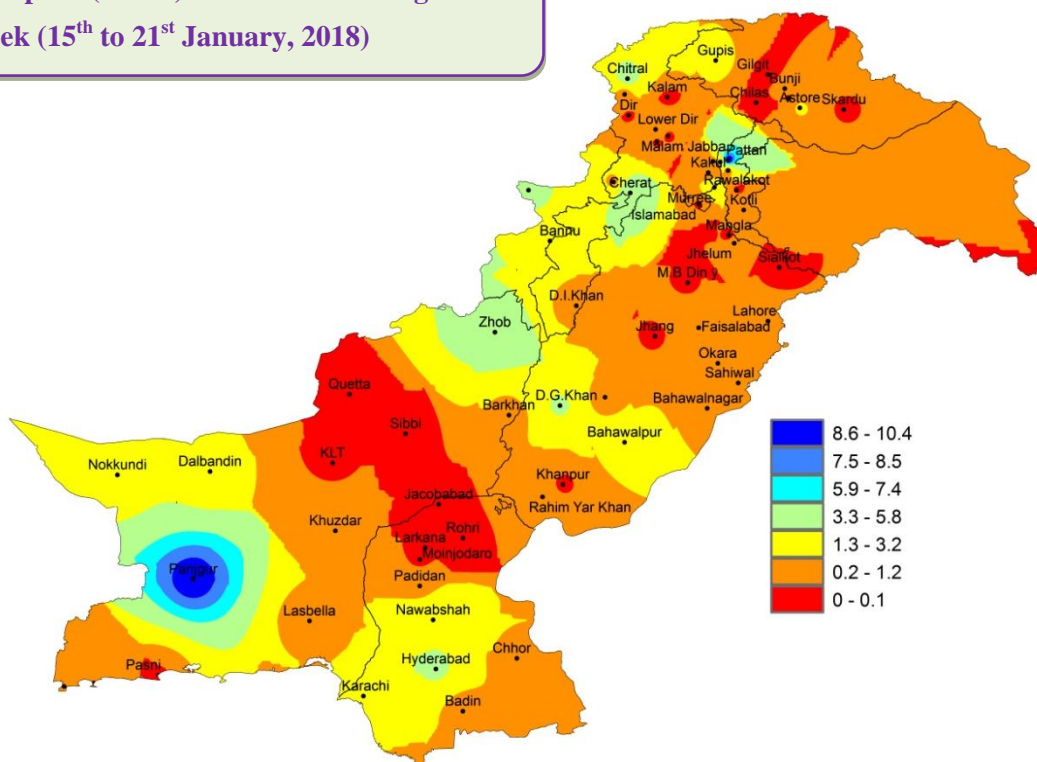
Mean Relative Humidity (%) during the previous week (15th to 21st January, 2018)



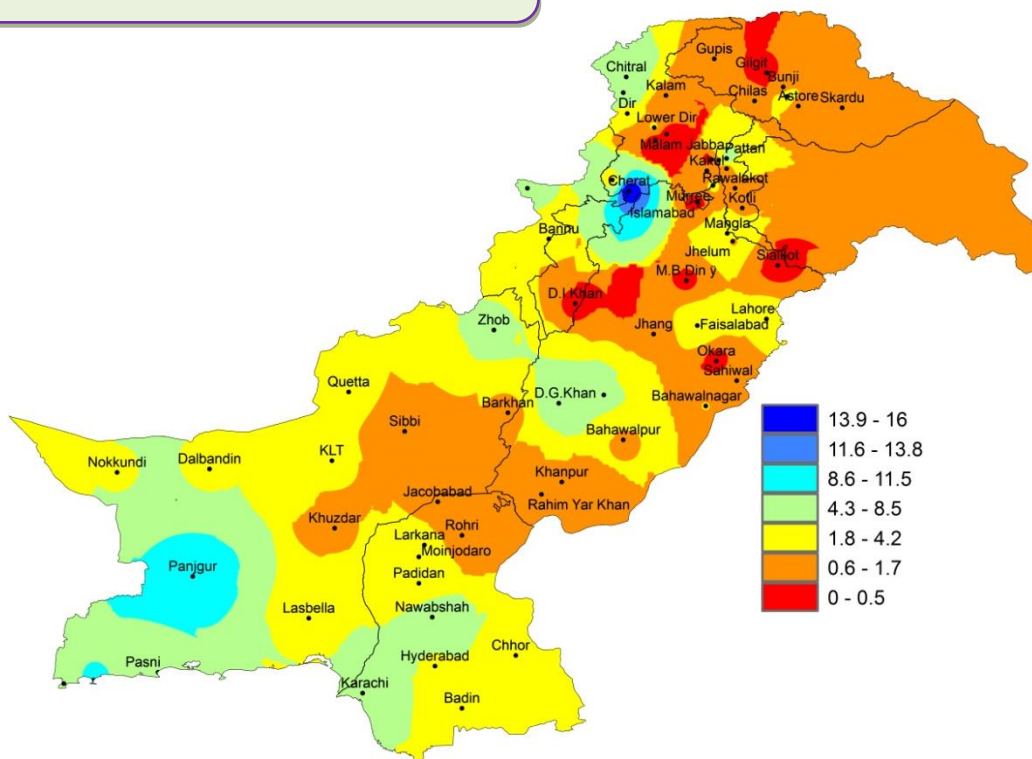
Total Growing Degree Days accumulated during the previous week (15th to 21st January, 2018)



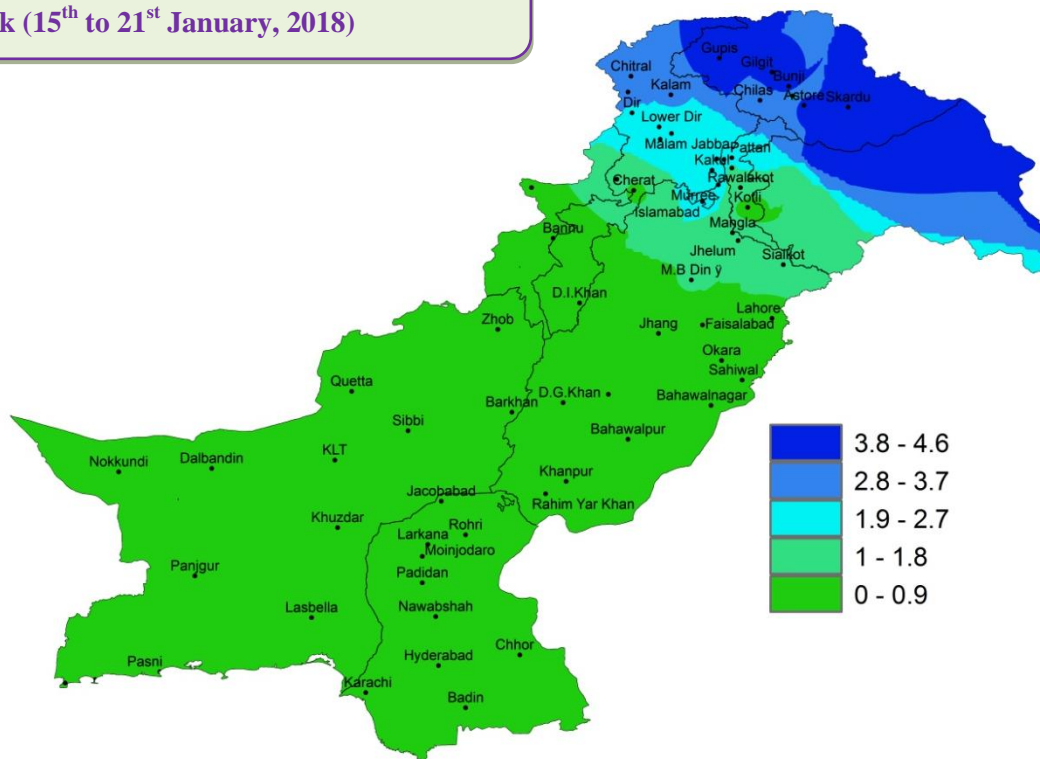
Mean Wind Speed (Knots) at 0800PST during the previous week (15th to 21st January, 2018)



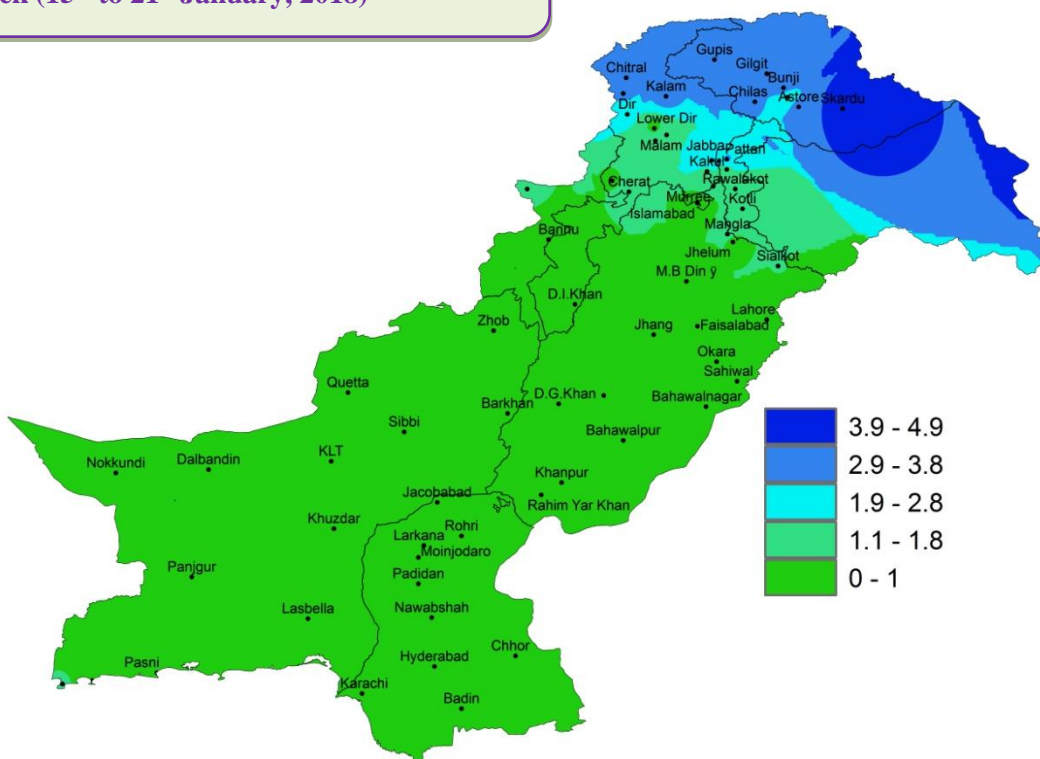
Mean Wind Speed (Knots) at 1700PST during the previous week (15th to 21st January, 2018)



Mean Cloudiness (Oktas) at 0800PST during the previous week (15th to 21st January, 2018)



Mean Cloudiness (Oktas) at 1700PST during the previous week (15th to 21st January, 2018)



Weekly Weather Advisory for Farmers
(22nd to 28th January, 2018)

Continental air is prevailing over most parts of the country. A shallow westerly wave is likely to enter in Balochistan on Monday and likely to affect during next 24 hours.

MONDAY
22-01-2018

Mainly cold and dry weather is expected in most parts of the country. However, light rain is expected at a few places in Quetta and Zhob divisions 60%.

TUESDAY
23-01-2018

Mainly cold and dry weather is expected in most parts of the country. However, light rain is expected at a few parts of the country, chances of rain in Gujranwala, Lahore divisions and Kashmir 30%, Hazara, Rawalpindi divisions, Islamabad and Gilgit-Baltistan 20%. Light snowfall over the hills is also expected in Kashmir and Gilgit-Baltistan during the period.

WEDNESDAY
24-01-2018

Mainly cold and dry weather is expected in most parts of the country. However, Balochistan and Sindh temperature is likely to decrease one to two centigrade.

THURSDAY
25-01-2018

Mainly cold and dry weather is expected in most parts of the country.

FRIDAY
26-01-2018

Mainly cold and dry weather is expected in most parts of the country.

SATURDAY
27-01-2018

Mainly cold and dry weather is expected in most parts of the country.

SUNDAY
28-01-2018

Mainly cold and dry weather is expected in most parts of the country.

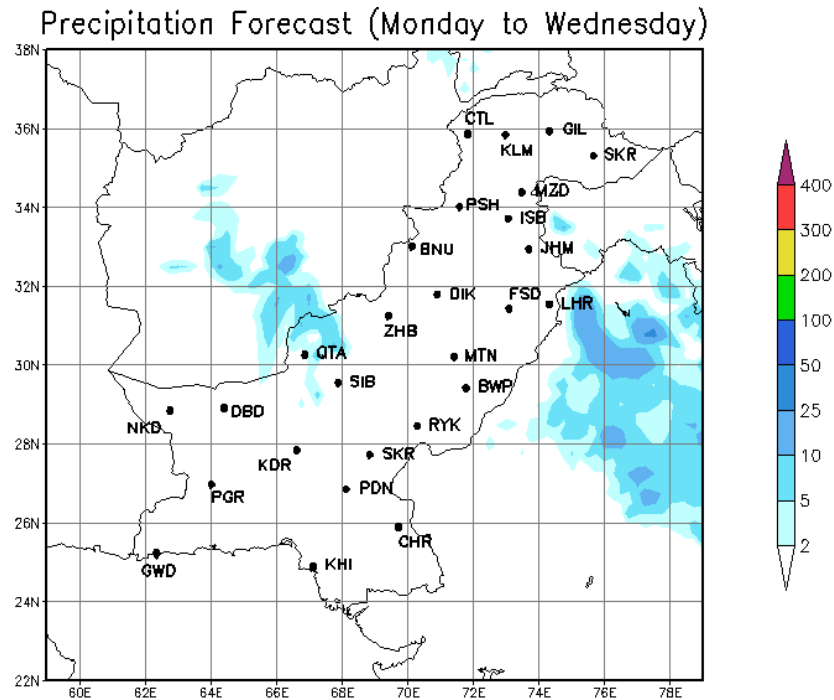
ADVISES FOR FARMERS

During the last week, dry weather was observed in most of the agricultural plains of the country. In the next week as well dry weather is likely to prevail in most parts of the country. Accordingly, following advises are suggested for the farming community.

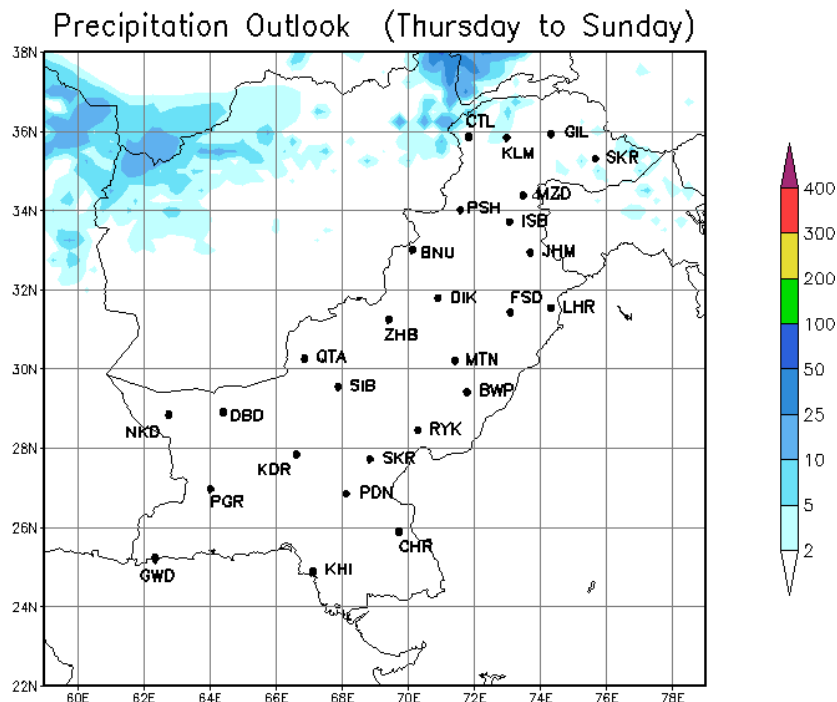
- Necessary precautionary measures may be taken to protect crops/nurseries from effects of extreme weather conditions.
- Removal of weeds from the fields may be ensured.

Weather Outlook from 22nd to 28th January, 2018

The outlook for the period 22nd to 24th January, 2018 shows that dry weather may prevail in most parts of the country, however light rainfall is expected in Quetta region.



The outlook for the period 25th to 28th January, 2018 shows that dry weather is expected to prevail in most parts of the country, however light rainfall is expected at scattered places in upper KP and Gilgit-Baltistan.



National Weather Data of Selected Cities (15th to 21st 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	-6.3	-7.5	***	60	0.00	4.0	3.3	1.4	0.9
Badin	13.6	10.5	110.5	50	0.00	0.0	0.0	0.6	2.6
Bahawalnagar	7.1	5.0	77.0	61	0.00	0.0	0.4	0.9	1.7
Bahawalpur	6.5	4.5	72.6	65	0.00	0.0	0.0	2.0	1.4
Balakot	2.0	0.9	43.6	52	0.02	2.1	2.9	0.4	0.3
Bannu	4.3	3.0	60.1	37	0.00	0.0	0.0	2.0	1.7
Barkhan	5.3	4.0	57.0	23	0.00	0.0	0.7	0.6	0.9
Bunji	1.0	-0.6	11.3	46	0.00	4.4	3.6	0.3	0.6
Cherat	3.7	2.0	25.0	47	0.00	0.7	1.3	5.7	16.1
Chhor	8.6	6.0	104.7	55	0.00	0.0	0.0	0.6	2.7
Chilas	1.4	0.5	19.8	41	0.01	3.3	2.9	0.0	1.1
Chitral	-1.7	-3.2	8.6	44	0.00	3.3	3.0	4.3	5.4
D.G.Khan	4.7	3.2	64.9	59	0.00	0.4	0.0	3.4	6.0
D.I.Khan	4.8	2.5	71.0	57	0.00	0.0	0.0	0.6	0.3
Dalbandin	0.3	-2.0	44.5	32	0.00	0.3	0.0	1.7	3.7
Dir	-3.7	-5.0	15.0	54	7.00	2.6	2.1	0.0	2.0
Drosh	-1.0	-2.4	4.1	33	0.00	3.3	3.0	0.6	8.6
Faisalabad	4.8	3.0	66.3	63	0.00	0.7	0.3	0.2	1.1
Gari dopatta	1.9	0.9	39.7	62	0.00	1.6	1.4	0.0	0.3
Gawader	9.2	5.5	89.3	62	0.00	0.0	0.0	0.6	8.9
Gilgit	-4.1	-5.5	***	64	0.00	3.7	3.7	0.0	0.0
Gupis	-6.6	-7.0	***	50	0.00	4.1	3.0	1.7	0.9

Hyderabad	12.4	11.0	102.5	50	0.00	0.0	0.0	3.4	4.0
Islamabad	2.0	0.0	50.9	60	0.00	1.9	0.7	0.0	0.3
Jacobabad	8.0	7.0	78.3	59	0.00	0.0	0.4	0.0	0.6
Jhang	5.3	4.6	69.3	64	0.00	0.0	0.4	0.0	0.6
Jhelum	3.8	2.0	62.5	59	0.00	1.0	0.9	0.3	1.4
Jiwani	15.7	14.5	110.4	66	0.00	0.9	1.1	0.6	7.7
Kakul	0.7	0.0	31.0	46	0.00	2.4	1.6	0.3	0.6
Kalam	-5.6	-8.0	***	69	13.00	3.1	3.6	0.0	0.6
Kalat	-3.3	-5.0	****	41	0.00	0.0	0.0	0.0	2.0
Karachi	13.0	11.5	112.8	44	0.00	0.4	0.0	1.7	6.3
Khanpur	5.5	4.5	75.7	64	0.00	0.0	0.0	0.0	1.4
Khuzdar	6.3	4.5	61.3	42	0.00	0.0	0.0	0.9	1.4
Kotli	3.7	2.0	62.7	54	0.00	0.6	1.1	0.9	1.4
Lahore	8.3	7.0	74.4	61	0.00	0.6	0.0	0.3	2.6
Larkana	8.6	7.5	84.0	55	0.00	0.0	0.0	0.0	2.0
Lasbella	8.9	7.0	98.5	46	0.00	0.0	0.0	0.3	2.6
Lower Dir	0.9	-2.0	36.3	56	0.00	2.0	0.7	1.1	2.0
M.B Din	6.0	4.4	67.7	65	0.00	1.0	0.0	0.0	0.3
Malam Jabba	-1.3	-4.0	***	66	9.00	1.9	1.4	0.0	0.0
Mangla	3.8	1.9	64.1	50	0.00	1.6	1.1	0.0	4.0
Mir Khani	1.4	0.0	26.2	49	0.00	2.4	1.9	0.0	3.0
Moinjodaro	5.3	3.5	69.1	66	0.00	0.0	0.0	0.0	3.4
Multan(PBO)	6.8	6.1	72.1	61	0.00	0.6	0.9	0.6	4.9
Murree	2.8	-1.0	23.1	44	0.00	2.0	1.1	2.9	2.0
Muzaffarabad	3.1	2.0	43.6	54	0.00	2.3	1.6	0.9	1.1
Nawabshah	8.4	7.0	88.8	60	0.00	0.0	0.0	3.1	6.3

Nokkundi	4.3	1.5	57.3	21	0.00	0.3	0.0	2.0	4.0
Okara	6.6	6.0	71.0	65	0.00	0.0	0.0	0.6	0.0
Padidan	7.5	6.0	83.8	63	0.00	0.0	0.0	0.9	1.7
Panjgur	2.6	1.0	53.5	29	0.00	0.0	0.0	9.1	11.4
Parachinar	-1.9	-3.5	14.3	50	0.00	0.9	1.3	3.9	5.9
Pasni	13.8	13.0	105.5	68	0.00	0.0	0.0	0.0	6.3
Pattan	7.9	7.0	54.3	44	4.00	2.7	3.1	10.9	7.0
Peshawar	2.8	1.5	58.2	62	0.00	1.7	0.9	0.9	2.6
Quetta	-0.8	-3.0	17.4	22	0.00	0.7	0.1	2.2	3.1
Rahim Yar Khan	6.7	5.2	80.3	62	0.00	0.0	0.0	0.6	0.6
Rawalakot	-1.8	-3.0	19.5	63	0.01	1.4	1.0	0.0	0.9
Rawalpindi	2.3	1.0	61.9	68	0.00	0.7	0.3	0.3	1.7
Rohri	9.1	7.5	85.8	57	0.00	0.0	0.0	0.0	0.6
Sahiwal	6.4	5.5	67.2	62	0.00	0.3	0.3	1.1	1.7
Saidu Sharif	0.7	-1.5	28.8	48	1.00	2.7	1.9	0.0	0.0
Sialkot	4.3	1.7	56.9	74	0.00	1.6	1.0	0.0	0.0
Sibbi	2.8	2.0	68.0	49	0.00	0.0	0.0	0.0	0.6
Skardu	-7.1	-9.5	***	66	0.00	4.6	4.9	0.0	1.4
Tandojam	9.2	7.5	89.0	59	0.00	0.0	0.0	0.2	2.2
Usta. M	7.2	7.0	80.0	56	0.00	0.0	0.0	0.0	0.0
Zhob	0.8	0.5	24.8	28	0.00	0.0	0.0	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 سبب باب (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)