



# Pakistan's Monthly Climate Summary January, 2021

## Overview

- National rainfall for the month of January 2021 was 59% below normal.
- January 2021 was 17<sup>th</sup> driest month since 1961.
- AJ&K (0%), GB (1%) & Punjab (6%) recorded close to normal rain.
- Balochistan (-100%), KP (-73%) & Sindh (-100%) observed extreme deficient rainfall.
- January 2021 ranked as 1<sup>st</sup> driest month together with 2018 for Balochistan while for Sindh it ranked as 1<sup>st</sup> lowest along with 14 other years.
- The wettest place of the month in the country was Garhi Dupatta, Kashmir (131 mm).
- The wettest day of the month in country was 6<sup>th</sup>, when Sialkot (Punjab) recorded 77.7 mm of rain.
- Pakistan January 2021 mean temperature was 10.72 °C being -0.26 °C lower-than average.
- Pakistan mean maximum temperature was 0.62 °C warmer than average.
- National mean minimum temperature was 1.18 °C lower than average.
- 21<sup>st</sup>, 30<sup>th</sup> and 31<sup>st</sup> January were the hottest days of the month (Mithi-Sindh 31.5 °C).
- Coldest temperature of -15.6 °C was recorded at Skardu (GB) on 13<sup>th</sup> and 14<sup>th</sup>.

## National weather extremes

Hottest day	31.5 °C	at Mithi (Sindh) on the 21 <sup>st</sup> , 30 <sup>th</sup> & 31 <sup>st</sup>
Coldest day	-1.5 °C	at Astore (GB) on the 5 <sup>th</sup>
Coldest night	-15.6 °C	at Skardu (GB) on the 13 <sup>th</sup> & 14 <sup>th</sup>
Warmest night	19.0 °C	at Karachi Airport (Sindh) on the 23 <sup>rd</sup>
Wettest day	77.7 mm	at Sialkot Airport (Punjab) on the 6 <sup>th</sup>
Wettest month	131.4 mm	at Garhi Dopatta (AJ&K)

## Synoptic Summary

The month started with a trough of low prevailing over Gilgit-Baltistan, GB, and adjoining areas which ultimately turned into a low-pressure on 3<sup>rd</sup> January 2021 and persisted over there through the following four days. Two low-pressure areas were spotted over KP and NE-Balochistan during 5-7 January. During next two days, the low over GB weakened into a trough but regenerated into a low on 10 Jan, while, the lows over KP and NE Balochistan persisted. The same situation persisted over there till 17<sup>th</sup> January. The said lows eventually

weakened into troughs through the following two days. Again, from 20<sup>th</sup> January, a low was found over GB with trough persisting over NE-Balochistan till 24<sup>th</sup> January. The low over GB eventually lessened into a trough over there and persisted till 29<sup>th</sup> January but on 30-31 January, again a low-pressure area developed over GB and NE-Balochistan with rest of the areas in country remained gripped with dry-continental air through the period.

### January 2021 area-weighted rainfall

	Rank (of 61)	Normal (mm)	Average (mm)	Departure (percent)	Comment
<b>Pakistan</b>	17	18.9	7.8	-58.9	17 <sup>th</sup> driest (record driest 1966)
<b>Azad Jammu &amp; Kashmir</b>	34	52.6	52.4	-0.3	---
<b>Balochistan</b>	1	18.1	0.0	-100.0	1 <sup>st</sup> driest on record
<b>Gilgit-Baltistan</b>	38	17.6	17.7	0.7	
<b>Khyber-Pakhtunkhwa</b>	13	45.5	12.3	-73.0	13 <sup>th</sup> driest (record driest 1966)
<b>Punjab</b>	36	15.6	14.8	-5.6	---
<b>Sindh</b>	1	2.8	0.0	-100.0	1 <sup>st</sup> driest on record with 14 other years

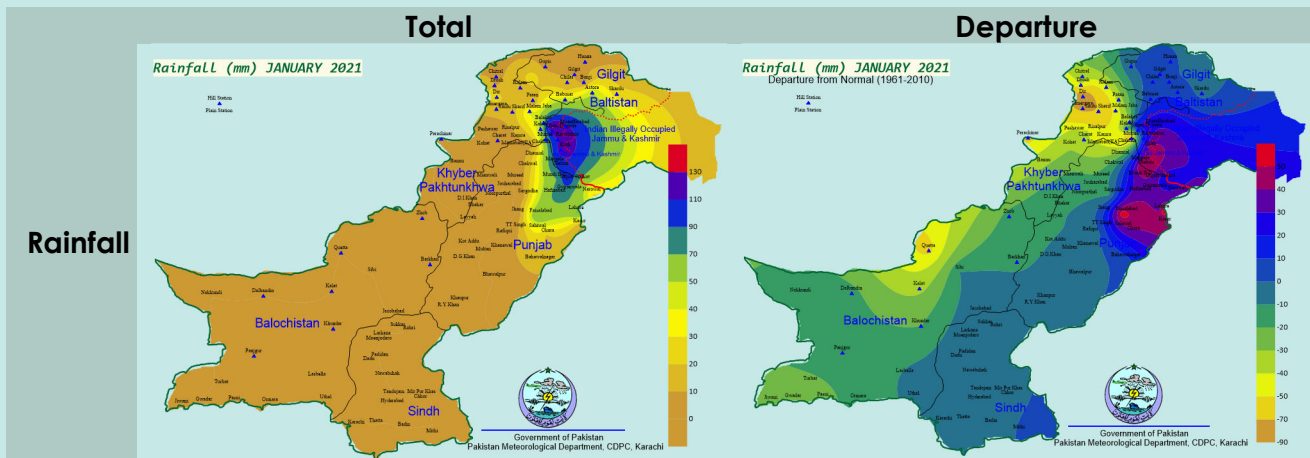
Rank ranges from 1 (lowest) to 61 (highest).

### Rainfall

During January 2021, only one rainfall event has brought some rain to country, upper KP, southwestern Punjab and AJ&K. The rainy spell started on 3<sup>rd</sup> January and lasted till 10<sup>th</sup> January. Over Pakistan, the month of January has significant rainfall contribution to winter (JFM) season and annual rainfall of the order of 25% and 6% respectively. January 2021 National rainfall was 7.8 mm against its normal rain of 18.9 mm being 59% below normal.

On regional scale, AJ&K, KP & Punjab provinces recorded close to average rainfall and Sindh & Balochistan saw their one of the driest month in the history with no rainfall in the entire month. It is pertinent to note that January 2021 ranked as 1<sup>st</sup> driest month together with 2018 for Balochistan, while, for Sindh it ranked as 1<sup>st</sup> lowest along with 14 other years. The wettest day of the month in country was 6<sup>th</sup>, when Sialkot (Punjab) recorded 77.7 mm of rain. The month's chief amounts of rainfall were: Garhi Dupatta (131 mm), Kotli (120 mm), Rawalakot (111 mm), Muzaffarabad (110 mm), Gujrat (107 mm) and Sialkot (102 mm).

## January 2021 rainfall maps



## Temperatures

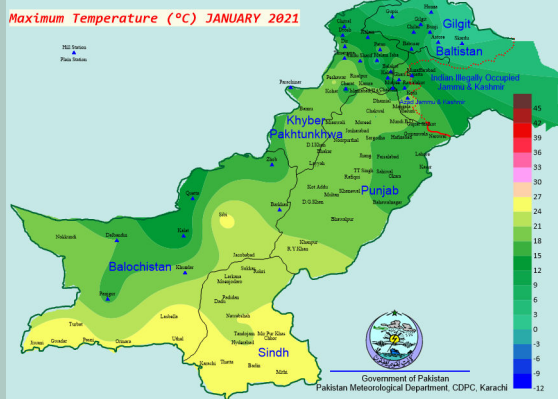
The national mean monthly temperature for Pakistan as a whole was  $10.72\text{ }^{\circ}\text{C}$ , being  $0.26\text{ }^{\circ}\text{C}$  cooler than average for January. The mean maximum (day) temperature at country-level was  $18.96\text{ }^{\circ}\text{C}$  being  $0.62\text{ }^{\circ}\text{C}$  warmer than average of  $18.34\text{ }^{\circ}\text{C}$ . The night temperature (minimum) for January was  $2.48\text{ }^{\circ}\text{C}$  being  $1.18\text{ }^{\circ}\text{C}$  lower than country average of  $3.66\text{ }^{\circ}\text{C}$ . On regional basis, all provinces except AJ&K & KP recorded cooler than normal monthly mean temperatures. The mean temperature anomalies of January were  $\pm 1.0\text{ }^{\circ}\text{C}$  over major parts of the country except southeast Balochistan and Eastern parts of KP where it ranged  $2\text{-}3\text{ }^{\circ}\text{C}$  cooler than the normal value.

Mean Maximum temperatures anomalies were  $\pm 2\text{ }^{\circ}\text{C}$  over major parts of the country except western parts of Punjab where these were around  $-3\text{ }^{\circ}\text{C}$  range. The mean minimum temperature anomalies for the month were  $0\text{ to }-3\text{ }^{\circ}\text{C}$  over major parts of country except Punjab where it was around  $1\text{-}2\text{ }^{\circ}\text{C}$ . 21<sup>st</sup>, 30<sup>th</sup> & 31<sup>st</sup> January were the hottest days of the month over country when Mithi (Sindh) recorded  $31.5\text{ }^{\circ}\text{C}$  day temperature. The coldest temperature of  $-15.6\text{ }^{\circ}\text{C}$  of the month were recorded at Skardu (GB) on the 13<sup>th</sup> and 14<sup>th</sup>.

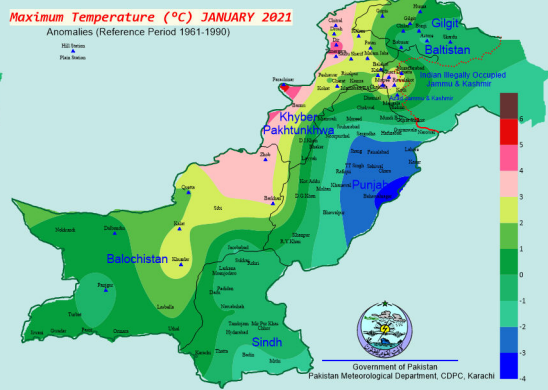
# January 2021 Temperature maps

Maximum Temperature

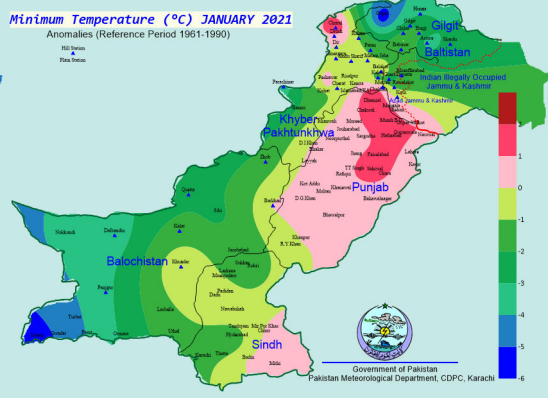
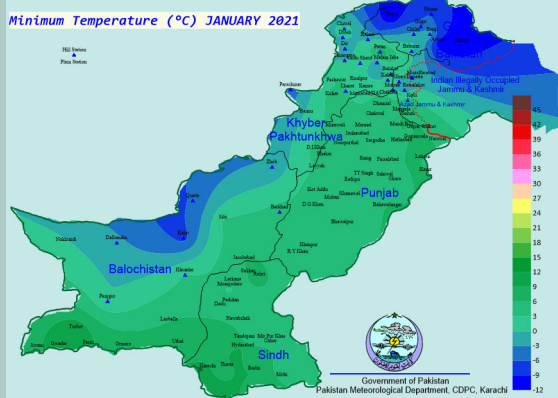
## Mean



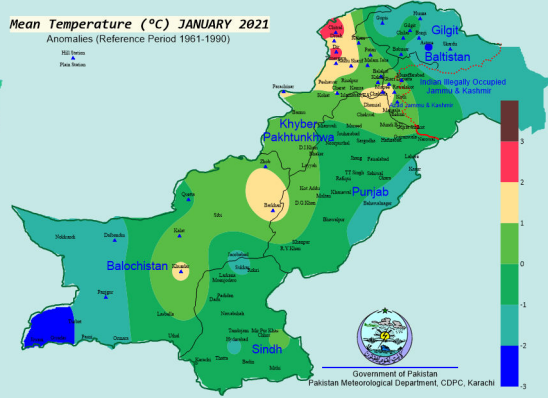
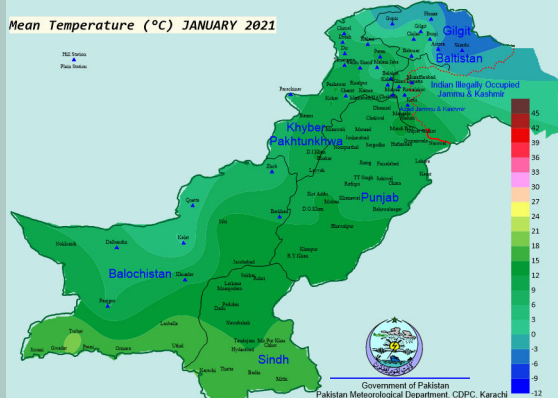
## Anomaly



Minimum Temperature



Mean Temperature



## January 2021 Monthly Averages & Normals

Station	Pressure (mb)		Temperature (°C)			Vapour (mb)	Precipitation	
	Station Level	Sea Level	Mean	Maximum	Minimum	Pressure	Total (mm)	Days
Drosh	857.0	1530.9	5.4	11.0	0.5	3.3	7.8	3
	858.4	1535.3	4.6	9.2	0.1	4.3	48.6	6.1
Peshawar	978.6	1017.5	11.9	21.6	3.0	7.5	0.0	0
	975.8	1018.3	10.9	18.5	4.1	7.9	30.8	4.4
Parachinar	829.7	1528.3	3.8	15.5	-5.1	4.5	0.0	0
	828.3	1514.7	4.2	10.2	-3.0	4.1	47.6	2.9
Rawalpindi	957.9	1017.5	11.3	18.8	4.6	8.3	12.8	3
	958.5	1018.2	10.0	17.6	3.1	7.9	59.2	6.2
Sargodha	991.8	1013.9	11.8	18.1	5.3	10.4	1.4	1
	995.6	1017.4	12.2	19.9	4.3	9.4	16.8	4.1
Jhelum	988.1	1015.9	12.3	19.7	6.3	11.3	87.2	2
	989.7	1017.6	12.0	19.3	5.5	9.4	37.4	5.7
Sialkot	986.1	1016.4	11.4	17.4	5.8	11.1	62.2	5
	987.2	1017.5	11.6	18.2	5.1	10.1	41.8	5
Zhob	859.7	1498.9	7.8	16.5	-2.5	2.4	0.0	0
	860.1	1500.5	6.4	12.8	-1.0	4.7	20.0	1.7
D.I.Khan	995.5	1016.1	12.2	20.7	4.2	8.9	0.0	0
	996.8	1017.3	12.5	20.1	4.4	8.8	11.4	3.5
Lahore	990.9	1016.4	12.4	17.0	6.6	10.9	60.4	2
	991.9	1017.4	13.1	19.6	6.7	9.7	22.9	4.8
Quetta	844.5	1536.1	3.9	12.7	-5.6	2.1	0.0	0
	842.8	1519.0	4.3	10.8	-2.7	5.0	64.0	5.9
Multan	1001.5	1015.9	12.5	19.6	5.4	9.8	0.0	0
	1003.1	1018.0	13.0	20.9	5.0	9.3	8.2	2
Barkhan	891.3	1492.5	11.8	19.2	4.1	2.7	0.0	0
	893.2	1508.0	10.3	16.2	4.1	5.2	13.9	1.3
Nokkundi	939.5	1018.6	10.8	19.4	0.4	2.6	0.0	0
	938.5	1017.8	11.9	18.8	3.9	6.2	8.4	0.6
Dalbandin	923.1	1521.1	8.3	18.0	-2.4	3.7	0.0	0
	921.6	1513.8	10.2	16.6	1.9	6.0	24.9	1
Jacobabad	1009.5	1016.2	14.3	21.4	5.9	9.2	0.0	0
	1010.8	1017.4	15.5	22.5	7.7	9.2	3.6	0.5
Khanpur	1005.1	1015.7	12.5	21.3	4.4	9.9	0.0	0
	1006.5	1017.3	13.6	21.7	4.7	9.2	3.8	1.1
Panjgur	907.5	1517.9	9.5	17.1	0.5	4.8	0.0	0
	906.9	1516.7	11.2	17.3	3.9	3.8	15.8	1.6
Khuzdar	879.5	1516.3	12.0	19.8	3.2	4.4	0.0	0
	877.9	1496.8	10.8	17.1	3.2	2.8	22.1	1.4
Nawabshah	1013.0	1016.5	14.7	24.4	5.4	9.2	0.0	0
	1013.8	1017.7	15.2	24.3	6.2	10.6	2.5	0.1
Jiwani	1010.2	1016.9	18.1	24.6	8.5	8.5	0.0	0
	1010.4	1016.9	19.6	24.1	13.9	13.1	22.0	1.5
Pasni	1016.1	1016.7	17.8	24.8	9.2	9.2	0.0	0
	1015.1	1015.9	18.6	25.1	12.1	12.3	23.8	1.4
Hyderabad	1010.1	1015.2	17.2	24.3	9.4	8.9	0.0	0
	1018.4	1016.9	18.2	24.8	11.4	10.1	2.0	0.5
Chhor	1014.4	1015.1	16.4	26.5	5.9	8.7	0.0	0
	1015.4	1016.0	16.7	26.6	5.7	9.0	1.1	0.3
Karachi	1012.8	1015.5	18.6	26.8	9.2	8.6	0.0	0
	1013.9	1016.8	18.9	25.9	10.8	10.6	10.8	0.7

Note: The first row against each station contains the actual values while second row for normal values

### Extreme values of month

STATION	Mean Temperature (°C)				Temperature (°C)				Highest (mm & knots)			
	Highest	Date	Lowest	Date	Highest	Date	Lowest	Date	Rain	Date	Wind Speed	Date
Drosh	8.1	17	3.8	22	15.5	17	-1.1	9	5.2	23	18	12
Peshawar	14.3	21	10.3	15	25.7	20	1.3	3	0.0	0	6	23*
Parachinar	7.4	30	0.8	16	19.0	31	-7.5	17	0.0	0	5	3*
Rawalpindi	12.9	21	8.3	17	22.5	21	1.2	1	7.5	6	20	5
Sargodha	16.0	21	6.8	13	27.0	21	2.5	13*	1.0	6	6	17*
Jhelum	16.4	4	9.3	17	25.5	21	2.0	1	57.0	6	6	4
Sialkot	15.4	4	7.1	1	21.8	19	1.6	1	42.0	6	2	3*
Zhob	11.3	16*	4.3	8	21.5	16	-6.0	2	0.0	0	13	22*
D.I.Khan	15.1	23	5.6	17	26.0	21	0.5	13	0.0	0	6	23*
Lahore	16.8	4	8.6	17	22.0	21	3.0	1	57.1	6	4	4*
Quetta	13.0	31	-2.3	8	21.5	21	-9.5	8*	0.0	0	28	22
Multan	16.6	21	8.0	14*	24.4	21	1.5	13	0.0	0	10	18
Barkhan	14.8	20	7.0	8	23.5	17	1.5	8	0.0	0	8	23
Nokkundi	20.1	31	4.6	8	29.0	31	-3.5	8*	0.0	0	24	22*
Dalbandin	19.3	31	3.1	8	28.0	21	-7.5	9	0.0	0	8	23
Jacobabad	16.6	22	11.5	18	24.0	13	3.5	1*	0.0	0	6	23
Khanpur	16.5	22	9.1	8	26.2	21	1.5	10	0.0	0	6	4*
Panjgur	16.3	20	4.1	7*	24.5	31	-3.5	10	0.0	0	30	22
Khuzdar	17.4	31	6.4	8	26.0	31	-2.5	5	0.0	0	8	72
Nawabshah	18.5	21	10.8	18	28.5	21	3.5	13	0.0	0	12	23
Jiwani	21.9	21	13.9	9	28.0	22	3.5	11	0.0	0	16	7
Pasni	20.6	13	13.5	8	28.5	22	6.0	27*	0.0	0	30	7
Hyderabad	22.0	22	14.8	8*	30.2	22*	5.5	24	0.0	0	20	9
Chhor	22.0	22	14.0	8*	30.2	17	3.0	13*	0.0	0	12	9
Karachi	23.8	22	16.3	1	29.0	12*	5.6	1	0.0	0	14	9*

\* means value occurred multiple times

### Note

Monthly Climate Summary is produced by Pakistan Meteorological Department, Climate Data Processing Centre, Karachi to provide the main features of weather events occurred in the country during the month. The summary contains detailed data information of 25 climate stations of Pakistan. The extremes & analysis is based on 110 numbers of stations. The information in the summary is based on real time data and/or electronic reports, therefore, the above results can be considered only preliminary. Climate Summaries are usually published in the first week of each month. Long term average for rainfall is for 1961-2010 while normal period for temperature is 1961-1990.

### Contact

Director, Climate Data Processing Centre, Pakistan Meteorological Department  
 Meteorological Complex, Gulistan E Jouhar, Block #5, Karachi-75290  
 Webpage: <http://www.pmd.gov.pk/cdpc/home.htm>; Email: [info.cdpc@pmd.gov.pk](mailto:info.cdpc@pmd.gov.pk)

Published on 4<sup>th</sup> February, 2021