



Pakistan's Monthly Climate Summary January 2023

In brief

- National rainfall for the month of January 2023 was below average (-21%).
- The wettest day of the month in the country was 30th January when Mandi Bahauddin (Punjab) recorded 65.0 mm rainfall, whereas Malam Jabba was the wettest place with monthly total rainfall of 191.0 mm.
- The national mean monthly temperature of January 2023 for Pakistan as a whole was 9.98 °C, being 1.25 °C cooler than average of 11.24 °C.
- Daytime (maximum) temperature at country-level was 17.11 °C, being 1.23 °C Cooler than the country-average of 18.34 °C.
- Nighttime (minimum) temperature was 2.94 °C, being 0.75 °C Cooler than the country-average of 3.69 °C.
- The hottest day of the month was at Shaheed Benazirabad (Sindh) when it recorded 31.5 °C temperature on 11th January 2023, while Mithi (Sindh) has been the warmest place with 26.6 °C mean monthly maximum temperature.
- The coldest temperature (-16.5 °C) of the month was recorded at Kalam (KP) on 17th & 26th January 2023, which incidentally, has also been the coolest place with -8.7 °C mean monthly minimum temperature.
- The Indian Ocean Dipole (IOD) has remained in neutral phase during the month.
- The La Niña conditions have been persisting during last three years, one of the rare phenomena, being described as a Triple-dip La Niña and is likely to prevail through this winter.

National weather extremes during January 2023

Hottest day	31.5 °C	at Shaheed Benazirabad (Sindh) on the 11 th
Coldest day	-1.5 °C	at Astore(GB) on the 18 th , Malam Jabba(KP) on the 13 th & 21 th and Quetta-Samungli(Balochistan) on the 13 th
Coldest night	-16.5 °C	at Kalam (KP) on the 17 th & 26 th
Warmest night	16.5 °C	at Karachi Airport (Sindh) on the 12 th
Wettest day	65.0 mm	at Mandi Bahauddin (Punjab) on the 30 th
Wettest month	191.0 mm	at Malam Jabba (KP)

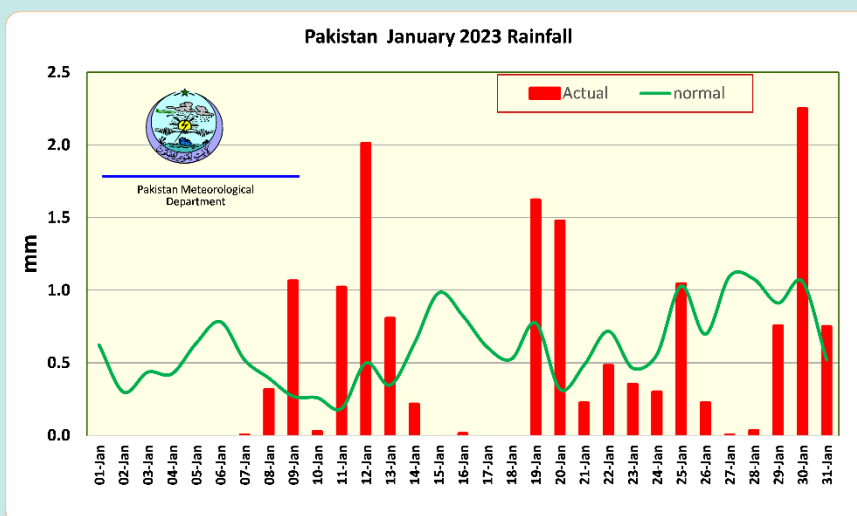
New weather Record Set in January 2023

S No	STATION	Weather Parameter	New Record		Old Record	
			Value	date	Value	Date
1	Chitral	Coldest day temperature	0.6	25/01/2023	1.0	29/01/1977
2	Drosh	Coldest day temperature	1.0	25/01/2023	1.0	08/01/2008
3	Gawadar	Coldest day temperature	17.5	14/01/2023	18.0	16/01/2020
4	Turbat	Coldest day temperature	14.0	14/01/2023	14.5	21/01/2009
5	Saidu Sharif	Coldest night temperature	-4.0	(18&19)/01/2023	-3.0	27/01/2008
6	Nokkundi	Coldest night temperature	-10.0	14/01/2023	-10.0	04/01/1934

Synoptic Summary

Dry continental (cold) air prevailed over most parts of the country during 1 -5 January. Two back-to-back westerly waves entered west Balochistan from 6-9 & 10-13 January which ultimately gripped upper parts of the country in the following days and yielded widespread moderate rains across most parts of the country (with few heavy falls & snow over north Balochistan, Khyber Pakhtunkhwa -KP, Kashmir and Gilgit-Baltistan -GB), except Sindh, during the period. The 3rd westerly wave entered West Balochistan on 18 Jan, gripped the northern parts of the country after two days and prevailed until 25 Jan, which also caused widespread rains/snow across most parts of the country outside Sindh. Then 4th westerly wave entered west Balochistan on 28 Jan, gripped upper parts of the country the next day and persisted till 30th of the month, which again caused widespread rains and snow across most parts of Balochistan, KP, Punjab, GB & Kashmir.

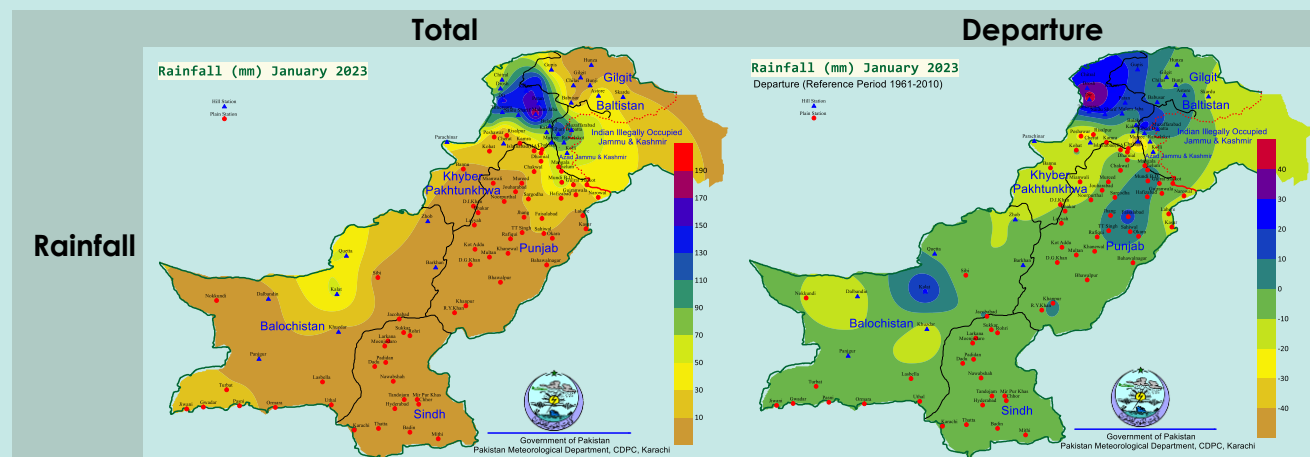
Rainfall: **Below average** as a whole in the country



January 2023 brought three light to moderate rain spells in Punjab, Balochistan, KP and GB/AJK, whereas only one very light rain spell was observed in Sindh. Climatologically, January is a less-average rainy month contributing 25.5% and 6.4% to the Winter (JFM) and annual rainfall respectively. However, with -21% deviation, the January 2023 happened to be a below-average rainy month for Pakistan with only 14.9 mm area-weighted rain against 18.9 mm average rainfall in the month. The situation was more or less similar on a regional scale i.e. Balochistan (10.9mm/-39%), Punjab (9.6mm/-38%), GB (13.8mm/-12%) and Sindh with (0.4mm/-85%) all witnessed below- to largely below-average rainfall. Whereas AJK with (70.6mm/+11%) and KP (47.7mm/+11%) both witnessed slightly above average rainfall during the month.

The wettest day of the month in the country was 30th January when Mandi Bahauddin (Punjab) recorded 65.0 mm rainfall, whereas Malam Jabba (KP) was to be the wettest place with a monthly total rainfall of 191.0 mm.

January 2023 Rainfall maps



The other significant monthly-total rains were at Garhi Dupatta 131.8mm, Muzaffarabad Airport 129.2mm, Muzaffarabad City 108.9mm, Dir (Upper) 158.5mm, Dir (Lower) 101.0mm, Kalam 148.0mm, Pattan 152.0mm, Saidu Sharif 103.8mm. The stations: Kot Addu, Hunza, Badin, Chhor, Hyderabad, Karachi, Mithi, Shaheed Benzirabad, Padidan, Thatta, Dadu, Mirpur Khas and Sakrand remained dry with no rain during the month. Whereas, D. G. Khan, Layyah, D. I. Khan (airport), Larkana, Moen-Jo-Daro, TandoJam, Lasbela and Sibbi, reported only traces of rainfall.

January 2023 Area-Weighted Rainfall

	Rank (of 63)	Normal (mm)	Average (mm)	Departure (percent)	Comment
Pakistan	25	18.9	14.9	-21	----
Azad Jammu & Kashmir	38	63.6	70.6	11	----
Balochistan	26	18	10.9	-39	----
Gilgit Baltistan	37	15.6	13.8	-12	----
Khyber Pakhtunkhwa	38	43.1	47.7	11	----
Punjab	25	15.5	9.6	-38	----
Sindh	24	2.8	0.4	-85	----

[RANK RANGES FROM 1 (LOWEST) TO 63 (HIGHEST)]

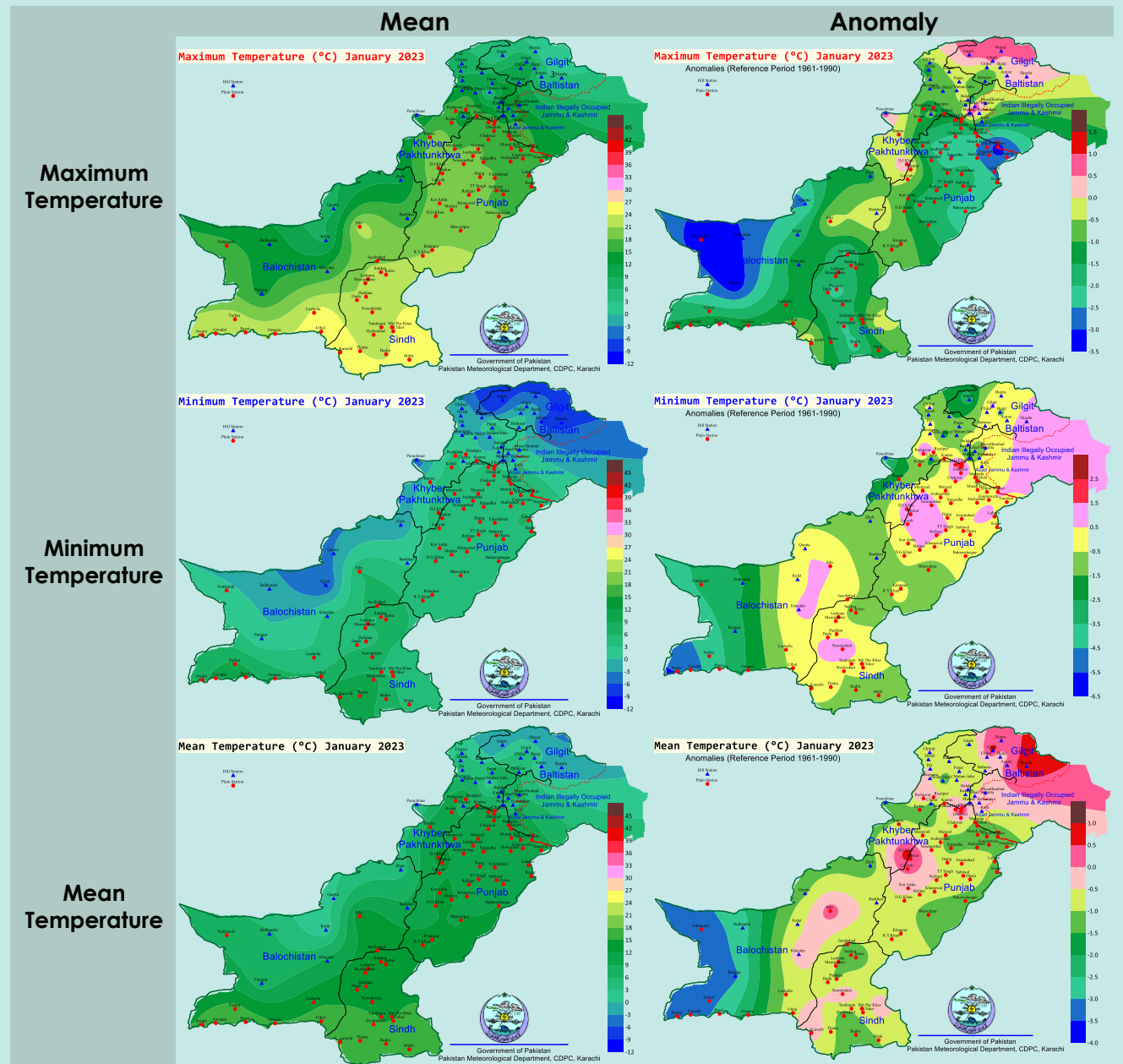
Temperatures: Cooler than average temperatures observed as a whole over the country.

January 2023 was **-1.25 °C Cooler** than average with national mean monthly temperature of 9.98 °C against the average 11.24 °C. Similarly on regional scale, Balochistan with 9.59 °C (**-1.98 °C**), KP 7.37 °C (**-0.63 °C**), Sindh 15.31 °C (**-0.85 °C**), AJK 4.50 °C (**-0.31 °C**), Punjab 11.49 °C (**-1.15 °C**) all recorded **Cooler** than average temperatures, except GB with 0.94 °C (**+0.10 °C**) being the only region having warmer than average temperature.

January 2023 mean maximum (daytime) temperature of 17.11 °C recorded at country-level being **-1.23 °C cooler** than average of 18.34 °C. The average night (minimum) temperature

of 2.94 °C was also -0.75 °C cooler than the country-average of 3.69 °C during the month. The mean temperature anomalies of January 2023 range between -3.4 to +0.8 °C in the country. The Mean Minimum temperature anomalies were -5.6 to +2.2 °C in the country with minimum temperature anomalies over Central Sindh & Balochistan and Upper Punjab were considerably higher. The hottest day of the month was at Shaheed Benazirabad (Sindh) when it recorded 31.5 °C temperature on 11th January, whereas Mithi was the warmest place with 26.6 °C average maximum temperature during the month. PMD weather observing station at Kalam (KP) recorded the month's coldest night temperature -16.5 °C on 17th & 26th January and incidentally has also been the coolest place with -8.7 °C average minimum temperature.

January 2023 Temperature maps



January 2023 Monthly Averages & Normals

Station	Pressure (mb)		Temperature (°C)			Vapour (mb)	Precipitation	
	Station Level	Sea Level	Mean	Maximum	Minimum	Pressure	Total (mm)	Days
Drosh	857.9	1539.1	3.4	7.8	-1.1	4.5	85.1	10
	858.4	1535.3	4.6	9.2	0.1	4.3	48.6	6.1
Peshawar	981.6	1020.9	11.2	18.5	3.8	7.6	10.9	1
	975.8	1018.3	11.3	18.5	4.1	7.9	30.8	4.4
Parachinar	829.9	1532.4	2.6	10.6	-5.5	4.1	40.7	6
	828.3	1514.7	4.0	10.2	-3.0	4.1	47.6	2.9
Rawalpindi	960.3	1020.2	10.7	16.4	4.8	7.8	43.3	4
	958.5	1018.2	10.4	17.6	3.1	7.9	59.2	6.2
Sargodha	996.4	1018.7	11.6	18.3	4.9	9.4	14.1	2
	995.6	1017.4	12.1	19.9	4.3	9.4	16.8	4.1
Jhelum	990.3	1018.3	10.9	17.5	4.2	9.9	43.5	3
	989.7	1017.6	12.8	19.3	5.5	9.4	37.4	5.7
Sialkot	988.5	1019.0	10.3	15.3	5.4	10.6	36.7	8
	987.2	1017.5	11.6	18.2	5.1	10.1	41.8	5
Zhob	860.9	1509.4	4.7	11.6	-2.2	4.0	7.0	2
	860.1	1500.5	5.9	12.8	-1.0	4.7	20.0	1.7
D.I.Khan	998.2	1018.8	13.0	20.7	5.3	8.7	1.0	1
	996.8	1017.3	12.4	20.1	4.4	8.8	11.4	3.5
Lahore	993.5	1019.2	12.0	17.3	6.8	10.0	8.3	3
	991.9	1017.4	13.2	19.6	6.7	9.7	22.9	4.8
Quetta	845.8	1549.3	2.6	8.2	-3.0	4.1	51.0	8
	842.8	1519.0	4.1	10.8	-2.7	5.0	64.0	5.9
Multan	1004.1	1018.9	12.1	19.2	5.0	8.7	2.2	1
	1003.1	1018.0	12.9	20.9	5.0	9.3	8.2	2
Barkhan	893.2	1507.3	9.4	16.1	2.7	3.2	3.0	1
	893.2	1508.0	10.2	16.2	4.1	5.2	13.9	1.3
Nokkundi	941.5	1021.2	8.1	15.5	0.7	3.5	0.3	0
	938.5	1017.8	11.4	18.8	3.9	6.2	8.4	0.6
Dalbandin	925.1	1536.0	6.6	14.4	-1.3	5.0	3.2	2
	921.6	1513.8	9.8	16.6	1.9	6.0	24.9	1
Jacobabad	1012.3	1019.0	14.1	20.5	7.6	9.6	4.0	1
	1010.8	1017.4	15.1	22.5	7.7	9.2	3.6	0.5
Khanpur	1007.9	1018.6	12.6	21.1	4.1	9.4	5.9	1
	1006.5	1017.3	13.2	21.7	4.7	9.2	3.8	1.1
Panjgur	909.2	1531.2	7.4	14.1	0.7	5.7	8.0	3
	906.9	1516.7	10.6	17.3	3.9	3.8	15.8	1.6
Khuzdar	882.1	1538.9	9.9	15.9	3.9	5.6	4.6	1
	877.9	1496.8	10.7	17.1	3.2	2.8	22.1	1.4
Sh. Benazirabad	1015.3	1018.7	15.1	22.7	7.4	10.1	0.0	0
	1013.8	1017.7	15.3	24.3	6.2	10.6	2.5	0.1
Jiwani	1012.5	1019.2	15.6	22.7	8.5	7.7	22.0	2
	1010.4	1016.9	19.0	24.1	13.9	13.1	22.0	1.5
Pasni	1018.5	1019.1	17.7	24.0	11.3	9.0	17.0	1
	1015.1	1015.9	18.3	25.1	12.1	12.3	23.8	1.4
Hyderabad	1012.8	1017.9	16.8	22.9	10.6	8.2	0.0	0
	1018.4	1016.9	18.1	24.8	11.4	10.1	2.0	0.5
Chhor	1016.7	1017.4	15.7	26.3	5.0	8.6	0.0	0
	1015.4	1016.0	16.2	26.6	5.7	9.0	1.1	0.3
Karachi	1015.1	1017.8	18.1	25.5	10.6	7.0	0.0	0
	1013.9	1016.8	18.1	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

January 2023 extreme values

STATION	Mean Temperature (°C)				Temperature (°C)				Highest (mm & knots)			
	Highest	Date	Lowest	Date	Highest	Date	Lowest	Date	Rain	Date	Wind Speed	Date
Drosh	7.4	7	0.2	24	15.0	5	-4.5	27	40.4	25	16	5*
Peshawar	15.4	9	8.5	6	22.8	9	0.0	3*	10.1	12	10	12
Parachinar	6.1	1	0.5	22	17.2	1	-8.5	14	13.2	23	8	15
Rawalpindi	13.8	10	9.0	16*	21.4	10	2.0	4	19.0	30	14	8*
Sargodha	14.7	28	6.5	6	24.2	28	1.8	16*	12.0	30	4	13*
Jhelum	13.7	31	6.9	6	23.0	27	1.3	19	35.7	30	8	23
Sialkot	13.7	31	7.2	6	20.5	27	2.2	18	20.0	13	6	11*
Zhob	8.5	10	-0.3	13*	18.5	9	-6.0	25	5.0	19	9	1*
D.I.Khan	15.5	10*	7.3	7	25.0	28	2.0	7	1.0	12	12	12*
Lahore	15.0	23	8.5	6	21.6	28	3.5	16	4.0	31	8	23*
Quetta	11.2	8	-4.5	13	17.5	7	-8.0	14	27.0	11	20	11
Multan	14.4	12	8.9	7	22.5	28	2.0	15	2.0	20	8	11*
Barkhan	12.2	12	7.0	13*	20.5	9	0.0	4*	3.0	21	6	13*
Nokkundi	18.0	7	-1.8	14	24.0	7	-10.0	14	0.3	28	26	11
Dalbandin	14.5	10	-3.3	13	24.0	31	-8.5	14	2.0	29	14	11*
Jacobabad	16.5	1	11.3	19	23.0	1	4.0	14	4.0	20	8	18
Khanpur	15.5	11	9.7	19	24.5	11	1.0	16	5.9	20	8	12*
Panjgur	14.5	10	-0.8	14	22.5	31	-6.0	14	5.0	19	20	12
Khuzdar	12.5	2*	6.0	24	18.5	2	-0.5	24	4.6	20	10	11
Sh.Benazirabad	20.7	11	12.5	26	31.5	11	4.5	16*	0.0	0	16	19*
Jiwani	20.3	10*	11.0	14	27.5	1	3.0	15	21.0	19	20	12
Pasni	21.3	1*	11.5	13	28.5	1*	6.0	14	17.0	20	18	13
Hyderabad	21.0	11	13.9	15	29.2	11	6.0	15	0.0	0	14	11*
Chhor	19.1	11	12.5	15	30.0	10	1.2	17	0.0	0	12	19
Karachi	21.5	8	14.4	15	29.5	8	6.0	15	0.0	0	14	27

* Mean values 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 (50 years) while normal period for temperature is 1961-1990 (30 years).

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

Published on 3rd February, 2023