



Pakistan's Monthly Climate Summary October 2022

In brief

- National rainfall for the month of October 2022 was largely below average (-50%).
- October 2022 rainfall was below average in all the regions.
- The wettest day of the month in the country was 12th October when Attock (Punjab) recorded 111.0mm rainfall which has also proved to be the wettest place during the month with highest monthly total of 118.6mm.
- The national mean monthly temperature of October 2022 for Pakistan as a whole was 24.18 °C, being 0.82°C warmer than average of 23.36 °C.
- Daytime (maximum) temperature at country-level was 31.77 °C, being 0.23 °C Warmer than the country-average of 31.54 °C.
- The nighttime (minimum) temperature was 16.15 °C, being 0.93 °C warmer than the country-average of 15.22 °C.
- The hottest day of the month was at Sibbi (Balochistan) when it recorded 42.0 °C temperature on 2nd October 2022.
- Coldest temperatures of -1.5 °C of the month were recorded at Kalam (KP) on 21st and Astore (GB) on 21st & 22nd October 2022.
- The Indian Ocean Dipole (IOD) remained in negative phase during the month.
- The La Niña conditions have been persisting through almost 3rd year, one of the rare phenomena, being described as Triple-dip La Niña and is likely to prevail through this fall.

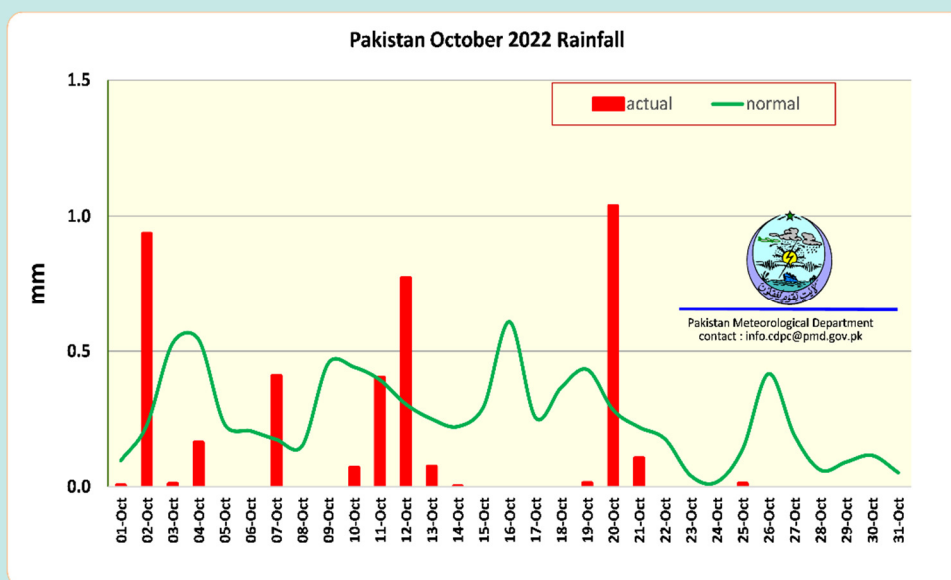
National weather extremes during October 2022

Hottest day	42.0 °C	at Sibbi (Balochistan) on the 2 nd
Coldest day	9.0 °C	at Hunza (GB) on the 20 th
Coldest night	-1.5 °C	at Kalam (KP) on the 21 st and at Astore (GB) on the 21 st & 22 nd
Warmest night	26.5 °C	at Karachi Airport (Sindh) on the 2 nd , 3 rd , 4 th & 8 th
Wettest day	111.0 mm	at Attock (Punjab) on the 12 th
Wettest month	118.6 mm	at Attock (Punjab)

Synoptic Summary

The westerly trough was noticed prevailing over Gilgit-Baltistan (GB), Kashmir and adjoining Upper Khyber Pakhtunkhwa (KP) through the entire month, while continental air prevailed elsewhere in the country from 1st to 5th Oct. Then, two separate low-pressure areas formed over southern Punjab and Northwest Balochistan on 6th Oct, only to persist until 8th Oct. A fresh westerly trough approached the North Punjab on 11th Oct, shifted over sub-mountainous Punjab and then moved away northeastwards. On the other hand, another low-pressure area developed over southern Sindh on 21st but became less marked on 23rd.

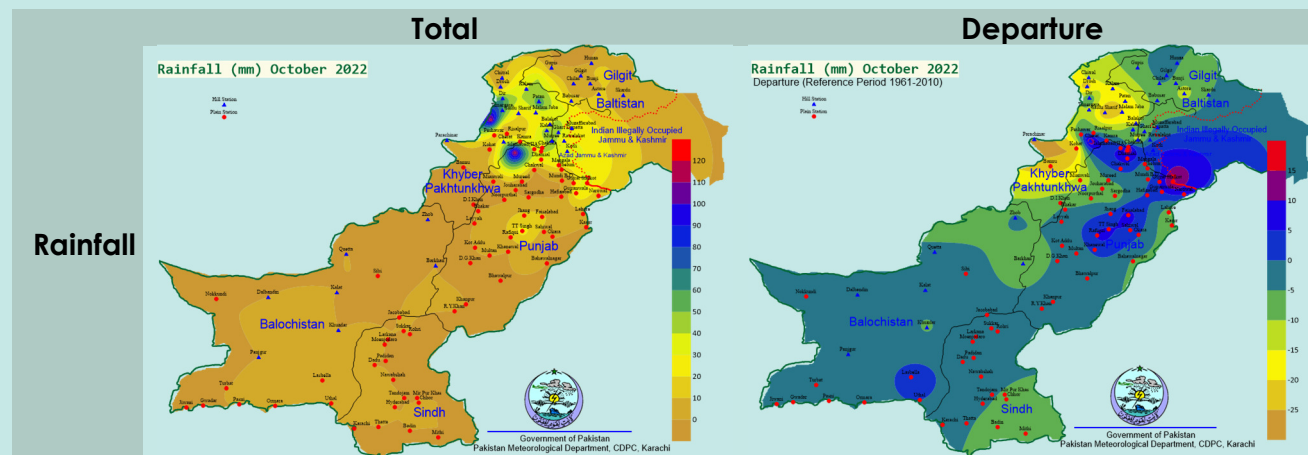
Rainfall: Largely Below average in most parts of the country.



During October 2022, about four light rain spells were experienced in Punjab, GB, KP and AJK. Whereas, Sindh received no rainfall and Lasbella, Balochistan got a light rain just on one day. Climatologically, October is a less-average rainy month contributing 30% and 5.7% to the post monsoon (OND) and annual rainfall respectively. However, with -50% deviation, the October 2022 happened to be a largely below-average rainfall month for Pakistan with only 4.0mm area-weighted rain against 8.0mm monthly average.

The situation was not much different on a regional scale too. Sindh (0.0mm/-100%), Balochistan (0.5mm/-84%), GB (3.4mm/-57%), KP (15.3mm/-39%), Punjab (5.2mm/-36%), & AJK (23.4mm/-25%) all witnessed largely below-average rainfall during the month.

October 2022 Rainfall maps



The other significant monthly-total rains were at Lower Dir 116.0mm, Dir 60.0mm, Pattan 58.0mm, Murree 50.0mm, Kakul 50.0mm. The stations: Bahawalnagar, Bahawalpur, Bhakkar, Chakwal, D.G.Khan, Joharabad, Kasur, Khanpur, Kot Addu, Layyah, Mianwali, Multan, Noorpur Thal, Rahim Yar Khan, Khanewal, Hunza, Bannu, D.I.Khan, Badin, Chhor, Hyderabad, Jacobabad, Karachi, Larkana, Mithi, Sh.Benazirabad, Padidan, Rohri, Sukkur, MoenJo-Daro, Thatta, Dadu, Mirpurkhas, Tandojam, Sakrand, Khairpur, Barkhan, Dalbandin, Gwadar, Jiwani, Kalat, Khuzdar, Nokkundi, Panjgur, Pasni, Quetta, Sibbi, Turbat, Ormara and Zhob remained absolutely dry with no rain during the month. Whereas the stations; Sargodha and Bunji reported only traces of rainfall.

October, 2022 Area-Weighted Rainfall

	Rank (of 62)	Normal (mm)	Average (mm)	Departure (percent)	Comment
Pakistan	21	8.0	4.0	-50	----
Azad Jammu & Kashmir	28	31.1	23.4	-25	----
Balochistan	34	3.0	0.5	-84	----
Gilgit Baltistan	29	7.8	3.4	-57	----
Khyber Pakhtunkhwa	22	25.0	15.3	-39	----
Punjab	28	8.1	5.2	-36	----
Sindh	-	4.3	0.0	-100	----

[RANK RANGES FROM 1 (LOWEST) TO 62 (HIGHEST)]

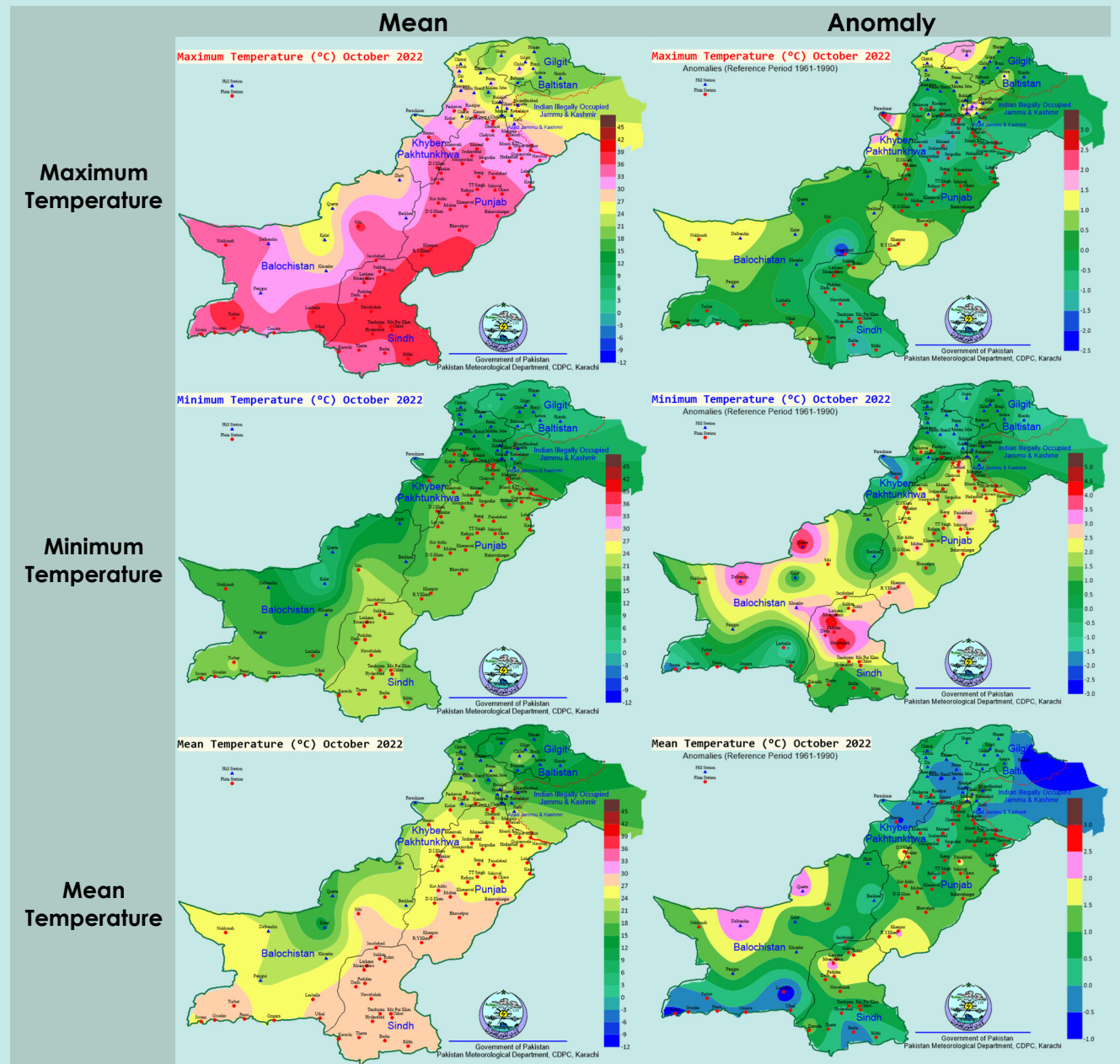
Temperatures: **Warmer** than average temperatures observed over the country.

The national mean monthly temperature of October 2022 for Pakistan as a whole was 24.18 °C, being 0.82 °C warmer than average of 23.36 °C. Similarly on regional scale, AJK with 17.73 °C (+0.22 °C), Balochistan 24.02 °C (+1.05 °C), KP 21.12 °C (+0.27°C), Punjab 26.32 °C (+1.03 °C) and Sindh 28.90 °C (+0.86 °C) all recorded warmer than average temperatures except GB with 14.18 °C (-0.82 °C) recorded cooler than average temperature.

October 2022 mean maximum (daytime) temperature of 31.77 °C was recorded at country-level being +0.23 °C warmer than average of 31.54°C. The average night (minimum) temperature of 16.15 °C was also +0.93 °C warmer than country-average of 15.22 °C, during the month. The mean temperature anomalies of October 2022 range between -1.0 to +2.6 °C

in the country. The Mean Maximum temperature anomalies were -2.3 to +3.0 °C in the country with maximum temperature anomalies over southwestern KP, western GB and north Punjab & adjoining AJK were considerably higher. The hottest day of the month was at Sibbi (Balochistan) when it recorded 42.0° C temperature on 2nd October. Whereas Turbat was found to be the warmest place with 38.5 °C average maximum temperature during the month. The coldest temperature of -1.5 °C of the month was recorded at Kalam (KP) on 21st and Astore (GB) on 21st & 22nd October. Kalam was noticed to be the coolest place with 2.5 °C average minimum temperature.

October 2022 Temperature maps



October 2022 Monthly Averages & Normals

Station	Pressure (mb)		Temperature (°C)			Vapour (mb)	Precipitation	
	Station Level	Sea Level	Mean	Maximum	Minimum	Pressure	Total (mm)	Days
Drosh	854.5	1509.4	19.3	27.4	11.2	8.4	7.8	2
	855.3	1515.5	19.2	26.7	11.6	7.0	31.1	5.1
Peshawar	974.8	1012.1	23.5	31.4	15.5	19.9	18.4	2
	970.1	1010.5	23.7	31.6	15.9	16.0	19.0	3.2
Parachinar	829.6	1519.0	17.2	26.0	8.3	9.6	3.0	1
	829.4	1516.1	16.1	23.3	8.8	7.3	31.8	5.8
Rawalpindi	955.2	1012.2	23.4	29.6	17.1	14.6	45.0	3
	952.9	1010.9	22.3	30.9	14.0	15.0	29.8	3.8
Sargodha	989.4	1010.2	26.9	33.8	20.0	21.5	0.0	0
	989.4	1010.6	25.1	33.5	17.4	18.1	9.7	1.9
Jhelum	983.6	1010.1	25.5	33.0	17.9	20.5	12.0	2
	983.5	1010.3	24.7	32.7	16.6	17.8	18.5	3.3
Sialkot	982.1	1011.0	24.6	30.7	18.4	21.6	34.8	3
	981.8	1010.6	23.7	31.2	16.2	18.8	18.2	2.2
Zhob	858.6	1491.3	20.7	28.0	13.4	6.0	0.0	0
	859.0	1494.9	20.0	28.0	12.1	7.8	6.0	0.9
D.I.Khan	990.2	1009.7	27.1	34.4	19.8	22.4	0.0	0
	990.3	1009.9	25.2	33.2	17.1	17.8	5.8	1.6
Lahore	986.7	1010.9	26.4	32.2	20.5	20.4	5.4	1
	985.9	1010.2	25.7	32.8	18.5	18.1	14.8	2
Quetta	845.0	1539.2	16.9	25.6	8.1	3.8	0.0	0
	843.0	1518.6	15.1	25.5	4.7	6.2	6.5	1.1
Multan	995.9	1009.8	27.6	34.2	21.0	19.2	0.0	0
	996.1	1010.2	26.3	34.4	18.2	18.3	5.2	0.9
Barkhan	891.1	1505.9	23.0	30.8	15.3	8.8	0.0	0
	891.3	1505.1	23.0	29.8	16.0	9.4	8.9	0.5
Nokkundi	934.6	1009.1	26.0	34.5	17.4	4.0	0.0	0
	935.6	1010.5	24.3	33.1	16.0	8.2	0.3	0.1
Dalbandin	919.2	1525.4	24.3	33.4	15.3	7.3	0.0	0
	918.4	1533.8	22.0	31.4	10.5	5.8	0.1	0.2
Jacobabad	1003.7	1010.0	27.9	33.0	22.9	25.2	0.0	0
	1003.4	1009.7	27.6	35.1	20.2	18.8	2.2	0.1
Khanpur	999.6	1009.7	27.7	36.2	19.2	21.4	0.0	0
	999.4	1009.6	25.6	34.7	16.5	18.6	2.6	0.5
Panjgur	904.1	1513.7	23.5	31.4	15.5	7.1	0.0	0
	904.8	1513.1	22.2	30.3	14.0	5.8	2.8	0.3
Khuzdar	878.2	1514.5	23.4	29.5	17.3	8.9	0.0	0
	876.5	1494.7	21.8	29.9	13.8	3.7	7.4	0.5
Sh. Benazirabad	1006.7	1010.0	29.4	36.0	22.7	24.0	0.0	0
	1006.3	1010.2	27.6	37.1	18.2	20.6	4.9	0.1
Jiwani	1004.1	1010.5	26.4	32.9	19.9	25.0	0.0	0
	1004.7	1011.1	27.1	32.7	21.5	24.2	1.5	0.2
Pasni	1010.5	1011.1	27.0	33.3	20.7	23.4	0.0	0
	1009.3	1010.2	26.4	33.7	20.2	20.6	3.4	0.1
Hyderabad	1005.3	1010.1	29.8	36.5	23.1	19.7	0.0	0
	1005.8	1009.7	29.6	36.8	22.4	18.7	2.9	0.2
Chhor	1009.3	1010.0	28.6	36.7	20.5	22.6	0.0	0
	1008.7	1009.5	27.9	37.3	18.5	19.4	6.2	0.4
Karachi	1008.1	1010.8	29.3	35.8	22.7	22.4	0.0	0
	1008.0	1010.3	28.3	35.1	21.4	21.0	2.3	0.3

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

October 2022 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	24.2	1	15.7	31	30.7	16	8.0	21	6.0	4	14	3
Peshawar	28.4	1	19.5	20	36.0	4	11.0	22	9.4	7	4	1*
Parachinar	21.3	6	14.0	24*	29.0	4*	5.0	25	3.0	20	4	1*
Rawalpindi	27.9	1	19.6	20	33.1	6	13.2	21	30.0	2	20	6
Sargodha	30.6	4	23.2	20	37.4	4	15.3	22	0.0	0	6	2*
Jhelum	30.4	1	19.7	20	37.0	2*	13.5	23	10.0	21	14	20
Sialkot	29.2	1	19.9	20	35.0	4	14.3	23*	24.0	12	10	11*
Zhob	26.3	1	18.3	14*	33.5	1	10.0	14	0.0	0	7	31
D.I.Khan	30.8	1*	24.5	31	38.0	3*	17.0	22*	0.0	0	6	4*
Lahore	30.6	2*	23.3	22	36.2	5	16.0	22*	5.4	12	8	20
Quetta	21.0	1*	14.0	11	29.5	1	4.5	11	0.0	0	18	3*
Multan	31.8	5	24.3	21	38.3	5	17.4	21	0.0	0	10	3
Barkhan	26.0	5	21.0	21*	33.0	1*	13.0	15	0.0	0	2	1*
Nokkundi	29.8	1	23.0	9	38.0	1	14.0	9*	0.0	0	16	5*
Dalbandin	28.5	1	21.8	22	37.0	1	11.0	22	0.0	0	6	6*
Jacobabad	30.5	1*	25.5	22	35.0	1*	20.0	22	0.0	0	2	1*
Khanpur	31.4	1	25.2	21	38.5	1*	16.0	17	0.0	0	6	1*
Panjgur	26.5	1	20.5	10	33.0	1*	12.0	11*	0.0	0	18	8
Khuzdar	27.3	3	21.0	29	34.0	3	15.0	27*	0.0	0	2	9*
Sh.Bnzabad	31.5	6	27.5	26*	38.0	6*	19.5	31	0.0	0	12	1*
Jiwani	28.5	9	24.8	13*	37.5	9	17.5	12*	0.0	0	12	2*
Pasni	30.0	9	24.8	21	37.5	9	18.0	11*	0.0	0	14	4
Hyderabad	31.7	10	27.8	21	39.0	11	20.6	15	0.0	0	14	2*
Chhor	30.8	8	27.0	25	39.0	11*	16.5	17	0.0	0	8	1*
Karachi	32.5	8	27.8	15*	38.7	9	18.0	15	0.0	0	14	1

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

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