



Government of Pakistan
Pakistan Meteorological Department
Pakistan Monthly Climate Summary
June 2024

In brief

- National area-weighted rainfall, 18.2 mm of June 2024 was **near to average (-2%)**.
- The heaviest one-day rainfall of 73.6 mm occurred at Joharabad (Punjab) on 28th June. Whereas, the station Malam Jabba has been the wettest place with monthly total rainfall of 132.0mm.
- The national mean monthly temperature of 32.16 °C for Pakistan (with **+0.18 °C** anomaly) was **slightly warmer** than country-average of 31.98 °C.
- The daytime (maximum) temperature at the country-level was 39.15 °C (with **+0.31°C** anomaly) also **slightly warmer** than the country-average of 38.85 °C.
- The nighttime (minimum) temperature at country level was 25.16 °C (with **+0.48°C** anomaly) also **warmer** than the countrywide average of 24.68 °C.
- The **hottest** day of the month was observed at BhakKar (Punjab) on 13th and Turbat (Balochistan) on 24th & 25th when they recorded a maximum temperature of 49.0 °C. Whereas Sibi (Balochistan) found to be the **warmest** place with a mean monthly maximum temperature of 45.8 °C.
- The **coldest** night temperature (6.0 °C) of the month was recorded at Bagrote (GB) on 9th and Kalam (KP) on 8th. Whereas the Kalam happened to be the **coolest** place with mean monthly minimum temperature of 10.9 °C.
- The El Niño–Southern Oscillation (ENSO) is currently in neutral phase (neither La Niña nor El Niño) with sea surface temperatures (SSTs) being around -0.2°C over the central equatorial Pacific Ocean and likely to shift to La Nina during August. The Indian Ocean Dipole (IOD) too is in neutral phase and likely to shift to positive phase.

Table-1: National Weather Extremes during June 2024

Hottest day	49.0	BhakKar (Punjab) on 13 th and Turbat (Balochistan) on 24 th & 25 th
Coldest day	16.0	Bagrote (GB) on 8 th and Hunza (GB) on 7 th
Coldest night	6.0	Bagrote (GB) on 9 th and Kalam (KP) on 8 th
Warmest night	33.5	Rohri (Sindh) on 27 th
Wettest day	73.6 mm	at Joharabad (Punjab) on the 28 th
Wettest month	132.0 mm	at Malam-Jabba (KP)

Synoptic Summary

In June, westerly waves continued to affect northern parts of the country, upper Khyber Pakhtunkhwa (KP), Gilgit-Baltistan (GB), Kashmir and parts of Punjab. Whilst, the Seasonal (or Heat) Low persisted over North-Northwest Balochistan through to the month. Another low-pressure area formed over Upper and eastern Sindh from 05-10 & 21-30 June with moist currents from the Arabian Sea started penetrating into southern and central parts of the country during 27-30 June. Meanwhile, another low-pressure area developed over Northeast Arabian Sea and adjoining Indian Gujarat region on 23 June, which persisted until 30 June. This low-pressure consequently caused heatwave in Karachi, Thatta and suburbs by suspending sea breeze from 23-29 June and resultantly produced first pre-monsoon dust-thundershowers in southeast Sindh and Karachi. Apart from this, a severe heatwave also struck the plain areas of Punjab and upper Sindh from 01-03 June & 24-27 June when daytime maximum temperatures shot up to 46-48 °C.

Table-2: New Weather Records Set in June 2024

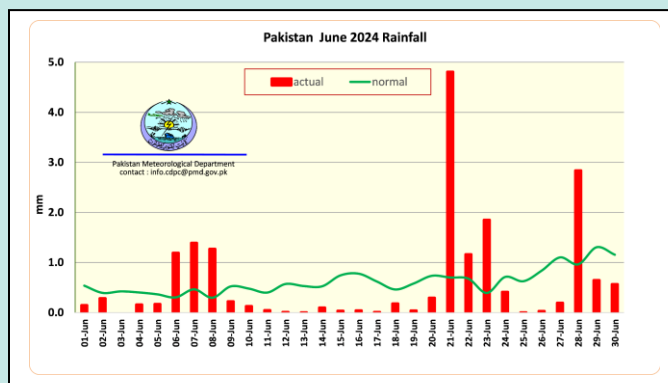
S No	Stations	Weather Parameters	New Record		Old Record		No of years examined.
			Value	Date	Value	Date	
1	LASBELA	Coldest night Temperature (°C)	16.5	08/Jun/2024	18.0	11/Jun/2023	94
2	THATTA	Hottest day Temperature (°C)	44.0	24/Jun/2024	44.0	12/Jun/2004	21

Table-3: Significant Winds

Date	Station	Max Wind Knots	Date	Station	Max Wind Knots	Date	Station	Max Wind Knots	Date	Station	Max Wind Knots
04/2024	Peshawar City	30	19/2024	Sialkot AP	35	03/2024	Lahore AP	62	05/2024	Khanewal	30
05/2024	Rawalpindi	30	20/2024	Sialkot AP	40	05/2024	Lahore AP	55	05/2024	Kasur	45
27/2024	Rawalpindi	40	29/2024	Sialkot AP	48	13/2024	Lahore AP	32	20/2024	Kasur	35
03/2024	Islamabad AP	40	20/2024	D.I.Khan(City)	46	19/2024	Lahore AP	45	20/2024	Sahiwal	34
05/2024	Islamabad AP	50	05/2024	Faisalabad	30	20/2024	Lahore AP	55	15/2024	Bahawalpur,City	30
06/2024	Islamabad AP	40	05/2024	Joharabad	40	29/2024	Lahore AP	40	20/2024	Bahawalpur,City	42
13/2024	Islamabad AP	37	20/2024	Joharabad	35	06/2024	Gujranwala	40	06/2024	Khanpur	40
20/2024	Islamabad AP	43	20/2024	Joharabad	38	03/2024	Narowal	36	07/2024	Turbat	30
05/2024	Mangla	38	09/2024	Jhang	32	05/2024	Multan City	36	06/2024	Padidan	30
05/2024	Islamabad ZP	45	20/2024	Jhang	38	06/2024	Multan City	38	07/2024	Padidan	40
24/2024	Islamabad ZP	40	05/2024	T.T. Singh	32	04/2024	Multan AP	42	21/2024	Padidan	30
03/2024	Sialkot AP	45	27/2024	T.T. Singh	30	05/2024	Multan AP	65	27/2024	Hyderabad	30
05/2024	Sialkot AP	35	05/2024	Lahore City	40	06/2024	Multan AP	65	04/2024	Peshawar BKIA	35
05/2024	Sialkot AP	42	19/2024	Lahore City	40	19/2024	Multan AP	52			
06/2024	Sialkot AP	35	30/2024	Lahore City	40	20/2024	Multan AP	52			

Rainfall: Below average in the country.

Climatologically, the June rainfall contribution to the annual national total and the Pre-Monsoon (AMJ) is 6.2% and 33.2%, respectively. During the month, Pakistan experienced 3 light to moderate rain spells. The daily area-averaged rainfall is shown in Fig-1. June 2024 rainfall was near average with only 18.20mm (-2%) for Pakistan as a whole. Situation was diverse on regional scale, i.e. Sindh with 23.90mm (+134%) observed **excessively above average** rainfall and ranks 10th highest in past 64 years (record is 51.6mm in 1964). GB with 14.20mm (+32%) too recorded above average rainfall and so was Balochistan with 10.30mm (+14%). The other regions i.e. AJK, Punjab and KP remained below average (Table-4). The wettest day of the month in the country was 28th June when 73.6mm rainfall was recorded at Joharabad (Punjab). The station Malam-Jabba (KP) was the wettest place with a monthly total rainfall of 132.0mm (Table-1).


Table-4: June 2024 Area-Weighted Rainfall

Region	Rank (of 64y)	Normal (mm)	Average (mm)	Departure (percent)	Comment
Pakistan	36	18.60	18.20	-2	----
Azad Jammu & Kashmir	13	63.00	35.80	-43	----
Balochistan	49	9.10	10.30	14	----
Gilgit Baltistan	48	10.80	14.20	32	----
Khyber Pakhtunkhwa	25	36.00	30.00	-17	----
Punjab	25	29.40	21.20	-28	----
Sindh	55	10.20	23.90	134	10th highest (record 51.6 mm in 1964)

[RANK RANGES FROM 1 (LOWEST) TO 64 (HIGHEST) IN TERMS OF YEARS FROM 1961]

The other notable rainfalls recorded in the month were Joharabad 119.6 mm, Balakot 85.0 mm, Dir 79.0 Mm, Saidu Sharif 71.0 mm, Mithi 70.0 mm, Chakwal 65.6 mm and Kakul 61.6 mm. The stations; Khanpur, Dalbandin, Gawadar, Jiwani, Kalat, Nokkundi, Panjgur and Ormara, remained absolutely dry with no rain during the month. Whilst, Rahim Yar Khan, Badin, Padidan, Dadu, Quetta (Samungli), Turbat, Faisal Base and Masroor recorded only traces of rainfall during the month.

June 2024 Rainfall maps

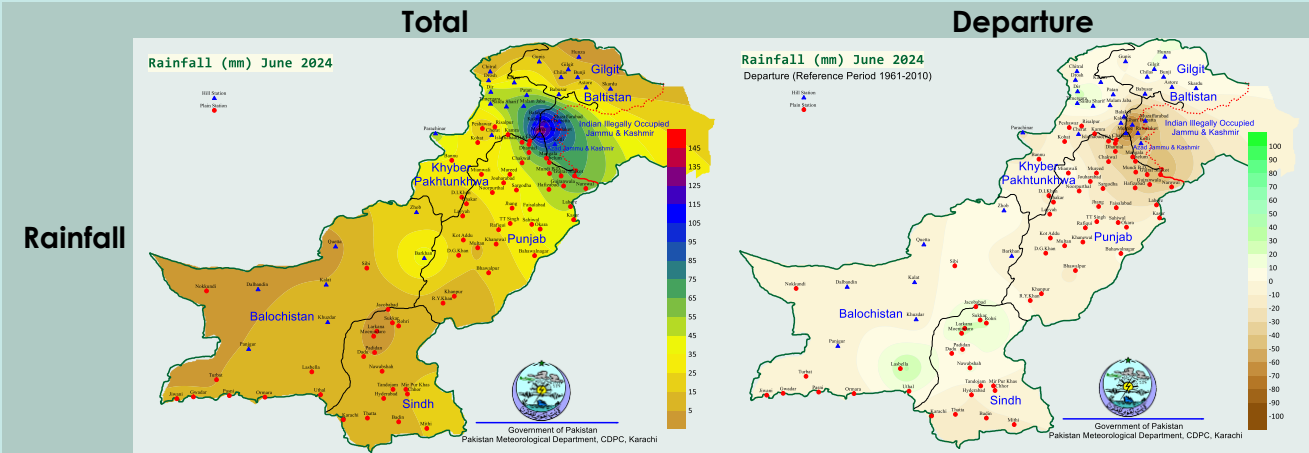


Fig. 2. June-2024 spatial rainfall distribution and departure from normal

Table 5: **Slightly above average** Temperatures observed in the country.

Area Averaged Temperatures (°C) in June 2024 and anomalies from normal 1961-1990						
Regions	Maximum Temperature		Minimum Temperature		Mean Temperature	
	Actual	Anomaly	Actual	Anomaly	Actual	Anomaly
Pakistan	39.15	+0.31	25.16	+0.48	32.16	+0.18
Azad Jammu & Kashmir	33.24	+0.96	18.39	+0.14	25.84	+0.56
Balochistan	39.59	+0.39	25.27	+0.56	32.42	+0.18
Gilgit-Baltistan	30.25	-0.97	15.10	-1.12	22.71	-1.04
Khyber Pakhtunkhwa	36.86	+0.01	22.15	-0.21	29.51	-0.10
Punjab	41.61	+0.39	27.84	+0.83	34.73	+0.36
Sindh	40.91	+0.47	28.50	+0.82	34.73	+0.49

The June 2024 national mean temperature of 32.16 °C was +0.18 °C slightly warmer than the country-average of 31.98 °C. A similar trend prevailed at regional scale: Sindh with 34.73°C (+0.49°C), AJ&K with 25.84°C (+0.56°C), Punjab with 34.73 (+0.36°C) and Balochistan with 32.42°C (+0.18°C) all exhibited warmer than average temperatures (Table-5, Fig. 3 lower panel). The mean temperature anomalies of June 2024 were in range of -2.1 to +4.0°C in the country.

June 2024 mean-maximum (daytime) temperature of 39.15°C recorded at country-level with a positive anomaly of +0.31 °C than the country average of 38.85°C. The AJK with 33.24°C (+0.96°C) recorded the 6th highest average maximum temperature in June (record is 34.08°C in 1963). (Table-5, Fig. 3 upper panel). The Mean maximum temperature anomalies were -2.3 to +2.8 °C in the country with those being considerably higher over AJ&K and adjoining KP.

The night (minimum) temperature of 25.16 °C (with +0.48 °C anomaly) was also above than average of 24.68 °C during the month. The province of Sindh with 28.50°C (+0.82°C) exhibited 6th highest minimum temperature (record is 28.84 °C in 2020) (Table-5, Fig-3, middle panel). The hottest day temperature of the month was 49.0 °C recorded at Bhakkar (Punjab) on 13th and Turbat (Balochistan) on 24th & 25th. Whereas, Sibbi (Balochistan) happened to be the warmest place with 45.8 °C average maximum temperature during the month. The coldest night minimum temperature of the month was 16.0 °C recorded at Bagrote (GB) on 9th and Kalam (KP) on 8th with latter being the **coolest** place with 10.9 °C average minimum temperature.

June 2024 Temperature maps

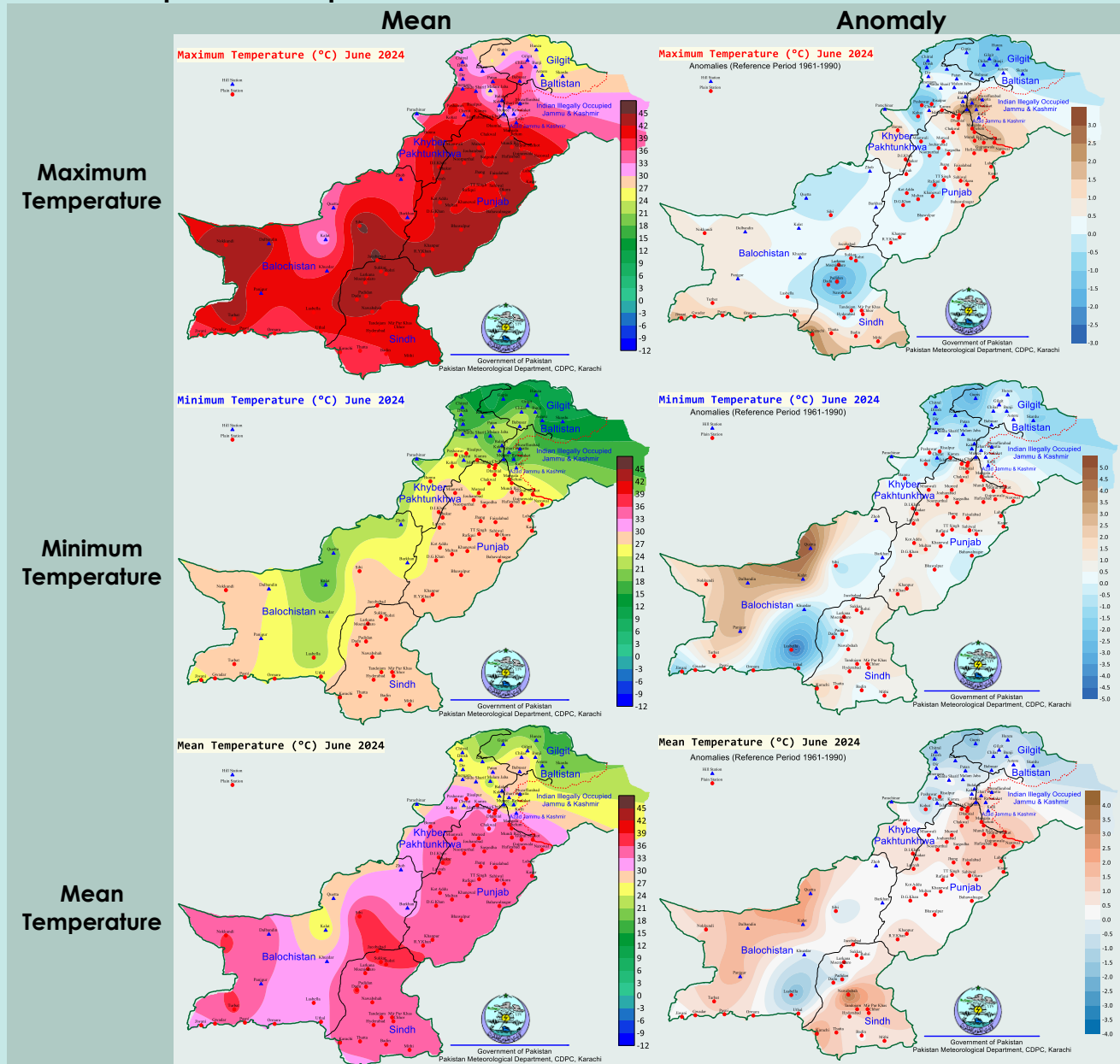


Fig. 3. June-2024 Temperatures (Maximum, Minimum & Mean) and their anomalies.

Table 6: Jun 2024 Monthly Averages & Normals

Station	Pressure (mb)		Temperature (°C)			Vapour (mb)	Precipitation	
	Station Level	Sea Level	Mean	Maximum	Minimum	Pressure	Total (mm)	Days
Drosh	847.4	1436.4	26.4	34.0	18.8	10.0	10.6	5
	846.7	1427.6	28.3	35.8	20.8	9.6	19.7	4.9
Peshawar	963.4	999.2	32.0	40.4	23.6	21.5	6.1	2
	956.5	995.4	33.0	40.2	25.4	20.0	12.1	4
Parachinar	823.6	1448.4	25.3	31.7	18.9	11.7	27.0	2
	821.8	1428.6	23.8	30.7	16.9	11.2	49.3	8.8
Rawalpindi	944.3	998.8	33.2	39.8	26.5	15.4	22.0	5
	942.0	996.7	30.5	38.4	23.5	19.1	70.1	8.2
Sargodha	977.5	997.3	35.8	43.3	28.4	23.1	19.0	3
	977.0	995.7	34.2	41.6	26.8	22.9	33.4	6
Jhelum	972.2	997.6	34.6	42.4	26.8	21.8	25.4	4
	971.0	996.4	32.9	40.2	25.7	21.5	57.1	7.7
Sialkot	970.3	998.0	34.4	41.6	27.1	22.8	15.2	5
	969.2	996.8	32.1	39.2	25.0	21.7	73.0	7.7
Zhob	851.4	1418.9	30.1	36.8	23.3	13.2	26.0	5
	850.0	1406.8	29.9	36.9	22.8	12.2	14.7	2.5
D.I.Khan	978.5	997.2	35.1	42.4	27.9	23.4	6.4	2
	976.9	995.7	33.7	41.1	26.3	23.6	22.2	3
Lahore	974.9	998.1	34.9	41.4	28.3	21.6	26.3	4
	973.1	996.4	33.6	39.9	27.2	22.9	51.3	6.1
Quetta	836.7	1448.9	27.8	34.9	20.8	7.2	0.0	0
	834.3	1424.2	26.1	35.4	16.8	10.8	1.5	0.9
Multan	984.3	997.7	35.8	41.8	29.8	24.1	11.0	2
	982.5	995.8	35.4	42.2	28.6	23.7	15.1	2.4
Barkhan	882.8	1433.9	31.1	38.1	24.1	13.8	35.0	6
	881.4	1421.8	31.1	37.7	24.4	15.4	43.0	3.6
Nokkundi	924.3	995.3	36.1	43.2	29.1	6.4	0.0	0
	924.1	995.0	34.6	42.9	27.5	11.8	0.0	0
Dalbandin	907.9	1439.7	35.0	42.9	27.0	9.8	0.0	0
	907.0	1431.3	33.3	41.3	22.4	8.5	0.6	0.2
Jacobabad	991.4	997.4	37.6	45.5	29.7	27.4	16.0	1
	989.6	995.4	37.0	44.5	29.5	24.5	3.0	0.4
Khanpur	988.4	998.1	35.6	42.6	28.6	29.3	0.0	0
	986.2	995.9	34.8	42.7	27.0	24.9	3.4	0.8
Panjgur	895.8	1449.4	33.4	39.9	26.9	15.7	0.0	0
	896.5	1438.9	31.8	39.5	24.2	9.1	4.0	0.2
Khuzdar	870.2	1439.9	30.9	38.5	23.3	6.2	4.4	1
	866.5	1411.0	31.4	38.1	24.3	6.0	12.6	1.3
Sh. Benazirabad	995.1	998.4	35.4	42.4	28.4	32.0	21.0	2
	993.2	997.0	35.6	43.7	27.6	29.9	2.8	0.3
Jiwani	993.8	1000.1	30.7	35.9	25.4	32.7	0.0	0
	992.9	999.2	30.6	34.3	26.9	32.4	0.9	0.1
Pasni	999.5	1000.0	31.7	36.7	26.6	35.8	2.0	1
	998.3	999.0	30.0	35.2	26.8	32.1	0.4	0
Hyderabad	994.3	999.0	34.6	40.0	29.1	30.7	1.0	1
	993.9	997.9	34.1	40.2	28.0	29.3	6.3	0.7
Chhor	998.7	999.4	34.8	41.0	28.5	33.5	13.7	1
	997.3	997.9	33.6	40.3	26.9	29.1	18.4	1.2
Karachi	997.6	1000.3	33.6	37.2	30.0	33.8	0.5	0
	997.0	999.5	31.7	35.2	28.1	31.8	6.7	0.9

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

Table 7: June 2024 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	31.1	30	20.7	08	38.0	30	13.5	7	4.4	22	12	25
Peshawar	34.5*	19	26.3	07	44.0	19*	18.5	8	3.0	18	10	4*
Parachinar	28.8*	02	18.3	07	37.5	2	11.5	7	21.0	7	8	2*
Rawalpindi	36.6	17	28.5	06	43.7	17	21.8	6	9.0	18	40	27
Sargodha	39.4	17	29.2	21	47.2	12	22.8	6	7.0	4*	8	5*
Jhelum	38.3	17	29.3	06	47.0	17	21.3	6	14.8	20	22	5
Sialkot	37.5	19	30.5	06	45.0	17*	22.6	6*	8.0	30	15	5
Zhob	33.3	18	27.0	22	41.0	17	20.0	8*	14.0	22	13	29
D.I.Khan	38.3	17	29.3	21	46.0	17	23.5	21	4.4	21	22	5
Lahore	38.0	18	30.9	21	44.5	18	24.4	4	18.0	30	20	3
Quetta	31.8	30	24.3	07	39.0	30	15.5	1	0.0	0	26	5
Multan	38.6	17	28.7	21	45.2	1*	24.1	21	9.2	21	30	6
Barkhan	34.3	19	25.8	21	41.5	18*	19.0	8	10.0	21	8	15
Nokkundi	39.0	30	32.5	07	47.0	29*	24.5	3	0.0	0	16	18
Dalbandin	38.0*	29	31.5	09	46.0	29*	22.5	2*	0.0	0	6	5*
Jacobabad	39.5	26	31.3	21	48.5	25	25.0	21	16.0	21	16	21
Khanpur	37.5	03	30.4	21	45.9	12	24.8	8	0.0	0	18	18
Panjgur	34.5*	06	31.5	21	41.5	3*	24.5	21	0.0	0	24	19
Khuzdar	33.0*	05	28.3	10	41.5	5	20.5	10	4.4	22	8	28
Sh.Benazirabad	38.5	24	31.3	28	46.5	24	24.5	8	11.0	28	20	7
Jiwani	35.8	20	29.3	08	45.0	20	23.5	18	0.0	0	12	8*
Pasni	37.0	01	28.0	08	46.5	1	21.0	8	2.0	8	16	5*
Hyderabad	38.2	24	32.3	28	45.0	24	27.5	10	1.0	28	30	27
Chhor	38.3	24	32.5	28	46.5	24	27.0	28	13.7	28	12	5*
Karachi	36.3	24	32.0	05	42.0	24	29.0	2*	0.5	28	16	6*

* 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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