



# Pakistan's Monthly Climate Summary September, 2020

## Overview

- National rainfall for the month of September was 89% above normal.
- September ranked as ninth wettest month since 1961.
- All provinces except Balochistan experienced excessive rainfall.
- Punjab (+139%), AJK (+24%), Sindh (88%), KP (120%), & GB (+112) recorded significantly above average rainfall.
- Malam Jabba recorded 407.0 mm monthly rainfall.
- Pakistan mean temperature was above normal at 0.29 °C.
- Mean temperature for September of the country was seventeenth warmest on record.
- Pakistan mean maximum temperature was 0.26 °C lower than average.
- National mean minimum temperature was +0.77 °C warmer than average and stood twelfth warmest on record.

## National extreme weather

Hottest day	44.0 °C	at Turbat (Balochistan) on the 10 <sup>th</sup> & 11 <sup>th</sup>
Coldest day	12.5 °C	at Gupis (GB) on the 1 <sup>st</sup>
Coldest night	4.0 °C	at Kalam (KP) on the 30 <sup>th</sup>
Warmest night	30.5 °C	at Moen jo Daro (Sindh) on the 15 <sup>th</sup>
Wettest day	166.0 mm	at Joharabad (Punjab) on the 1 <sup>st</sup>
Wettest month	407.0 mm	at Malam Jabba (KP)

## September area-weighted rainfall

	Rank (of 60)	Normal (mm)	Average (mm)	Departure (percent)	Comment
<b>Pakistan</b>	52	21.4	40.3	88.8	9 <sup>th</sup> highest (record 95.9 mm in 2012)
<b>Azad Jammu &amp; Kashmir</b>	45	50.2	62.3	24.2	16 <sup>th</sup> highest (record 171.5 mm in 1992)
<b>Balochistan</b>	5	6.2	0.2	-96.3	56 <sup>th</sup> highest (record 44.2mm in 2012)
<b>Gilgit Baltistan</b>	53	10.5	22.2	112	8 <sup>th</sup> highest (record 92.8 mm in 1992)
<b>Khyber Pakhtunkhwa</b>	58	51.2	112.6	119.7	3 <sup>rd</sup> highest (record 137.85 mm in 1992)
<b>Punjab</b>	55	34.6	82.8	139.1	6 <sup>th</sup> highest (record 154.3 mm in 2012)
<b>Sindh</b>	46	19.9	37.3	87.5	15 <sup>th</sup> highest (record 217.0 mm in 2011)

Rank ranges from 1 (lowest) to 60 (highest).

## Synoptic Summary

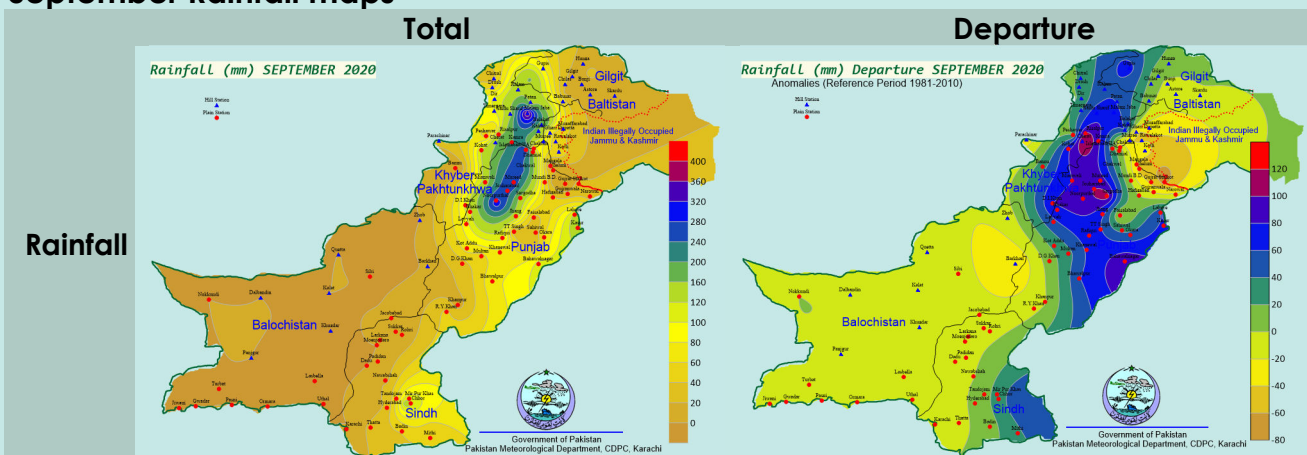
A low-pressure area continuing from August last days over KP shifted over Northern KP and adjoining Kashmir with another low was found lying over South Punjab and adjoining areas. The same situation continued to prevail till 6<sup>th</sup> September with another shallow low found positioning over southeast Sindh. These persistent lows got combined with a westerly wave and yielded heavy downpour in KP, Kashmir and upper Punjab triggering landslides and causing damages to land & property.

Then on 12<sup>th</sup> September, low-pressure areas found located over KP, south Punjab and adjoining upper Sindh and also over southern Sindh which resulted rain in parts of KP and south-eastern Sindh. Similar conditions prevailed till 14<sup>th</sup> September and thereafter monsoon currents were only confined to the north Pakistan and practically diminishing from southern half of the country followed by monsoon withdrawing from the north as well. Then on 27-28 September again low pressure was found over upper KP.

## Rainfall

One rain event occurred during first week of September 2020, bringing significant rain to the country, especially eastern and north western parts of KP and Punjab respectively. National rainfall for the month of September was 89% above normal for Pakistan as a whole and ranked as ninth highest wettest month since 1961. All provinces except Balochistan (-96%) experienced excessive rainfall of 139% (Punjab), 120% (KP), 113% (GB), 87% (Sindh) & 24% (AJK). The September rainfall over KP, Punjab & GB are ranked as 3<sup>rd</sup>, 6<sup>th</sup> & 7<sup>th</sup> highest respectively, the heaviest monthly rainfall during last sixty years period. The total rainfall of September 2020 at Malam Jabba (407 mm) was particularly significant. The monthly total rainfall at Noorpur Thal (305 mm), Joharabad (271.9mm) & Islamabad-AP (269.7mm) were also notable.

## September Rainfall maps



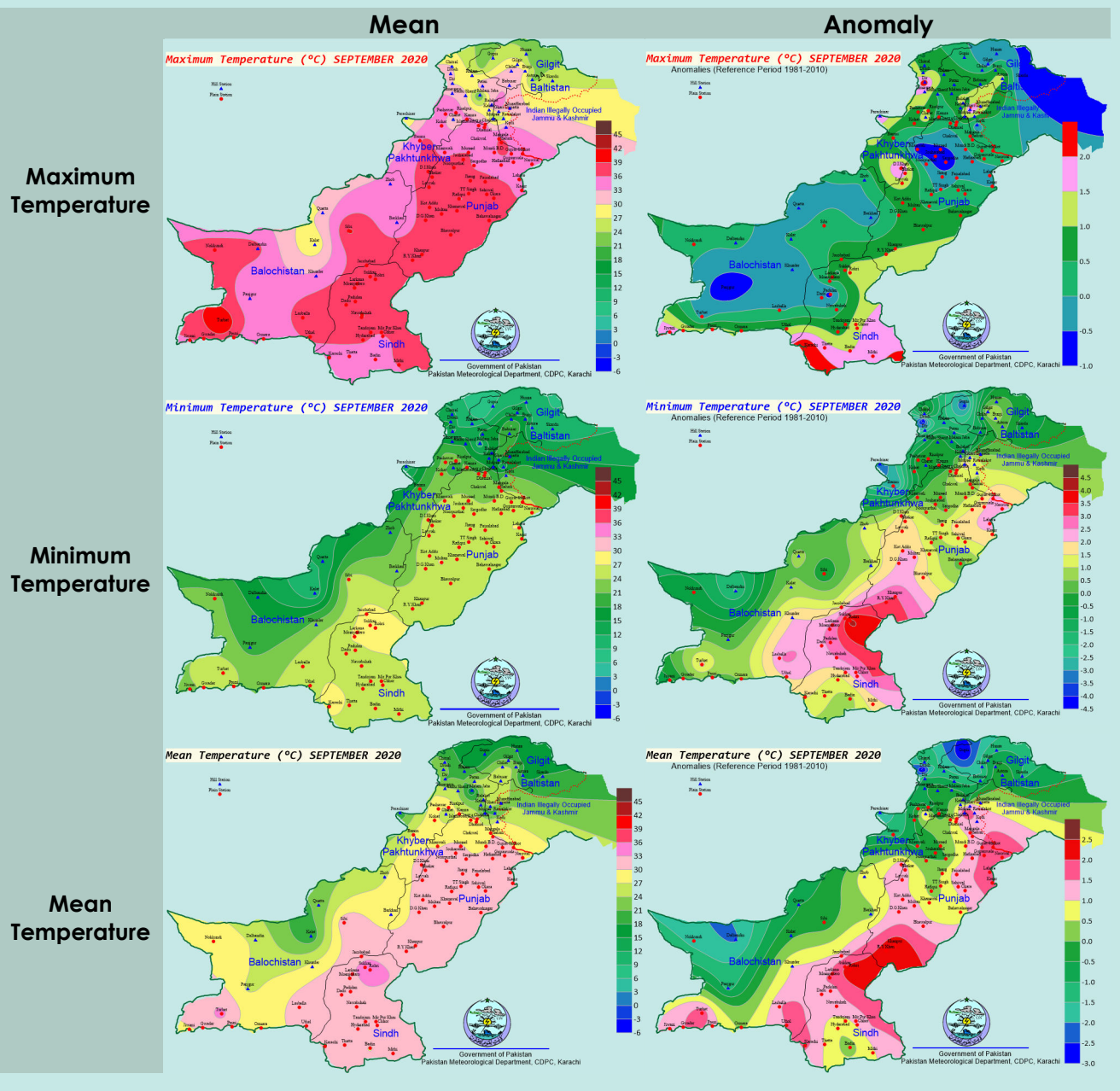
## Temperatures

The national mean temperature for Pakistan as a whole was 0.29 °C warmer than average for September. The mean temperature for September of the country was seventeenth

warmest on record. The mean maximum temperature (day temperature) of the country was 0.26 °C lower than average. The nights were relatively warm, with mean minimum temperature for September being warmer than country average at +0.77 °C and stood twelfth warmest on record. The mean temperature of September were 1-2 °C higher than average over major western parts of the country.

Mean Maximum temperatures were near average to below average over major parts of the country except south and eastern parts of Sindh where it stood above average. The mean minimum temperature for the month was above average over Sindh and southern Punjab by 2-4 °C whereas in remaining parts of country it was near to below average.

### September Temperature maps



## September Monthly Averages & Normals

Station	Pressure (mb)		Temperature (°C)			Vapour (mb)	Precipitation	
	Station Level	Sea Level	Mean	Maximum	Minimum	Pressure	Total (mm)	Days
Drosh	849.5	1458.6	22.5	30.7	13.3	12.4	48.9	6
	850.3	1466.6	25.1	33.1	18.2	11.4	21.8	4.8
Peshawar	967.8	1003.9	28.5	35.2	21.5	25.8	56.2	6
	963.7	1003.3	28.5	35.2	22.7	24.0	22.2	4.4
Parachinar	826.3	1484.4	16.6	26.8	10.3	10.3	27.0	4
	825.6	1473.5	21.0	27.2	14.3	13.1	55.4	8.4
Chaklala	948.5	1004.1	28.2	34.1	22.6	22.6	113.0	4
	948.3	1004.3	26.6	33.5	20.7	23.1	113.2	8.7
Sargodha	---	---	---	---	---	---	---	--
	983.3	1004.1	30.0	36.3	24.2	26.2	27.7	4.3
Jhelum	976.7	1002.6	29.7	36.3	24.1	29.6	26.4	2
	978.0	1004.0	28.6	34.7	23.1	26.3	74.5	7.1
Sialkot	974.8	1003.0	30.0	34.9	25.2	30.1	25.0	4
	976.1	1004.4	27.8	33.2	22.6	27.4	90.7	6.8
Zhob	854.8	1454.7	27.2	33.8	19.8	10.1	0.0	0
	854.6	1451.4	26.4	33.2	19.1	12.9	11.5	1.2
D.I.Khan	982.9	1002.0	31.3	37.5	25.1	30.6	106.0	2
	983.9	1003.0	29.7	36.5	23.6	26.4	20.8	2.1
Lahore	979.3	1003.0	31.6	35.7	27.4	29.4	107.7	3
	980.0	1003.8	29.5	35.0	24.6	26.4	65.1	6.4
Quetta	840.2	1488.2	22.4	30.2	13.4	4.8	0.0	0
	838.5	1469.6	22.2	31.6	11.7	9.0	2.5	0.4
Multan	988.7	1002.9	32.1	36.8	27.3	28.8	52.3	1
	989.8	1003.4	30.5	36.9	24.9	26.4	24.9	1.7
Barkhan	885.7	1458.9	27.5	33.7	21.2	15.4	2.0	1
	886.4	1465.7	26.7	33.6	20.6	16.5	44.5	3
Nokkundi	929.6	1003.0	29.3	36.5	22.0	5.0	0.0	0
	929.4	1002.0	30.7	38.6	22.2	9.4	0.0	0
Dalbandin	913.9	1483.1	28.7	36.7	16.3	8.3	0.0	0
	912.6	1474.4	29.5	37.2	16.5	6.3	0.0	0.1
Jacobabad	996.5	1002.7	32.7	37.2	27.7	34.1	1.0	1
	996.3	1003.2	31.4	36.8	26.0	28.2	11.0	0.4
Khanpur	992.3	1002.1	32.2	38.5	26.4	31.8	10.5	1
	993.4	1003.3	30.2	36.7	22.9	26.7	14.6	1.2
Panjgur	899.7	1475.8	27.0	33.3	19.8	8.1	0.0	0
	899.7	1476.7	27.9	35.4	19.3	8.3	2.5	0.4
Khuzdar	872.7	1463.4	28.2	33.7	22.5	11.0	0.0	0
	872.5	1451.4	27.5	34.2	20.0	6.1	7.9	1.5
Nawabshah	999.7	1002.9	32.6	39.2	26.3	29.7	12.9	1
	1000.3	1004.0	30.7	38.6	23.7	28.1	16.2	1
Jiwani	998.2	1004.5	29.8	34.8	23.4	30.2	0.0	0
	999.3	1005.7	27.9	31.5	24.3	28.2	0.3	0.1
Pasni	1003.7	1004.2	29.4	35.1	23.8	28.8	0.0	0
	1004.2	1004.8	27.8	32.6	23.6	27.5	1.2	0.2
Hyderabad	998.5	1003.2	31.1	36.4	26.6	31.8	25.0	2
	1000.6	1004.2	30.3	36.4	25.3	26.8	12.6	0.8
Chhor	1002.9	1003.6	31.4	36.4	26.9	33.9	90.3	4
	1003.8	996.9	29.7	36.0	23.7	27.3	37.3	1.4
Karachi	1001.6	1004.3	31.0	35.1	27.3	32.1	0.0	0
	1003.2	1005.9	28.7	32.8	25.4	27.8	10.2	0.8

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	25.1	23	16.1	1	35.2	22	10	30	14.4	1	15	28
Peshawar	30.5	11*	23.3	1	38.6	20	18.0	1	28.0	2	6	4
Parachinar	19.8	11	13.5	4	30.0	11	8.0	5	14.0	4	3	1*
Chaklala	30.1	12	23.9	1	36.7	21*	19.1	30	33.0	5	18	26
Sargodha	----	--	----	--	----	--	----	--	----	--	----	--
Jhelum	31.5	12*	25.8	26	38.5	17	20.3	29*	17.8	7	8	6
Sialkot	31.6	19	27.3	4	36.8	19*	21.3	29	9.0	4	8	8
Zhob	29.8	9	23.8	30	35.5	14	17.5	27*	0.0	0	15	30
D.I.Khan	34.0	14	24.0	1	41.0	17	22.5	1*	70.0	2	6	28
Lahore	33.9	18	25.9	4	38.2	18	24.0	4	48.1	4	6	51
Quetta	25.0	5*	18.6	26	32.0	4*	9.5	26*	0.0	0	20	28*
Multan	34.5	13	25.1	1	40.0	13	22.4	1	52.1	1	14	25
Barkhan	29.6	20	24.8	29	36.5	20	18.0	28	2.0	1	4	1
Nokkundi	32.3	5*	25.4	30	39.5	5	17.0	24	0.0	0	22	1*
Dalbandin	32.1	6	23.5	30	39.5	6*	13.0	27	0.0	0	10	22
Jacobabad	34.4	14	30.4	1	39.0	14	24.0	1	1.0	1	4	15
Khanpur	34.3	14	27.5	1	41.3	21	23.0	1*	10.5	1	6	2*
Panjgur	28.8	7	22.9	30	36.5	6*	18.0	5*	0.0	0	20	30
Khuzdar	30.0	11	25.4	26	36.0	9*	18.5	30	0.0	0	4	1*
Nawabshah	35.4	22	29.4	4	44.0	24	24.0	30	12.2	1	12	25
Jiwani	33.0	23	28.5	2*	41.5	23	21.5	29	0.0	0	16	23
Pasni	32.5	23	27.1	28	41.0	23	20.5	25	0.0	0	14	6*
Hyderabad	33.5	21	28.4	4	41.0	22*	25.0	1*	13.0	1	22	27
Chhor	34.1	22	29.0	4	40.5	22*	24.0	1	83.0	1	8	1*
Karachi	32.6	13*	29.8	29	38.5	22	25.8	28	0.0	0	18	7

\* 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 Pakistan weather events occurred in Pakistan during the month. The summary contains detail 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 results contained above 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 1981-2010.

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