

# CLIMATOLOGICAL ANALYSIS

SEASON

SUMMER 2022



BOSNIA AND HERZEGOVINA  
FEDERATION OF BOSNIA AND HERZEGOVINA  
FEDERAL HYDROMETEOROLOGICAL INSTITUTE

# CLIMATOLOGICAL ANALYSIS SEASONE SUMMER 2022.

Sarajevo, October 2022.

Mean air temperatures during the climatological summer 2022 (1<sup>st</sup> June – 31<sup>st</sup> August 2021.) ranged between 21,3 °C in Bugojno and 27,6°C in Mostar. On the mountain areas air temperatures were in the range of 11,7 °C on Bjelasnica to 18,1 °C on Ivan-sedlo. Temperature deviations from the normal values during the summer, which covers the period (1991.-2020.) were above normal. Deviation of the mean temperature than the average summer temperature ranged from 1,3 °C on Bjelasnica and Ivan-sedlo to 2,3 °C in Mostar and Drvar. By percentage temperature values are classified into the category of warm and very warm.

STATION	DEVIATION (°C)				PERCENTILES
	JUNE	JULY	AUGUST	SUMMER	
Bihać	2,6	1,2	0,9	1,6	86
Bjelašnica	3,1	1,0	-0,1	1,3	84
Bugojno	3,6	1,9	0,4	2,0	94
Drvar	3,5		1,0	2,3	100
Gradačac	2,6	2,1	0,8	1,8	88
Ivan-sedlo	2,7	1,0	0,1	1,3	89
Livno	3,4	2,1	0,2	1,9	92
Mostar	3,3	2,5	1,0	2,3	93
Sarajevo	3,8	1,9	0,5	2,1	94
Sanski Most	3,0	1,1	1,1	1,7	90
Tuzla	2,7	1,5	0,8	1,6	89
Zenica	3,0	1,5	0,4	1,7	91

Table 1 Deviation middle of winter air temperatures in relation to cli standard normal and the corresponding percentiles

STATION	MOUNTH			STANICA	MOUNTH		
	June	July	August		June	July	August
Bihać	Red	Yellow	Green	Livno	Red	Yellow	Green
Bjelašnica	Red	Yellow	Green	Mostar	Red	Yellow	Green
Bugojno	Red	Yellow	Green	Neum	Red	Yellow	Green
Drvar	Red	Yellow	Green	Sarajevo	Red	Yellow	Green
Gradačac	Red	Yellow	Green	Sanski Most	Red	Yellow	Green
Ivan-sedlo	Red	Yellow	Green	Tuzla	Red	Yellow	Green
Jajce	Red	Yellow	Green	Zenica	Red	Yellow	Green



Table 2 Overview of marks mean temperature during the winter months by the method of percentiles

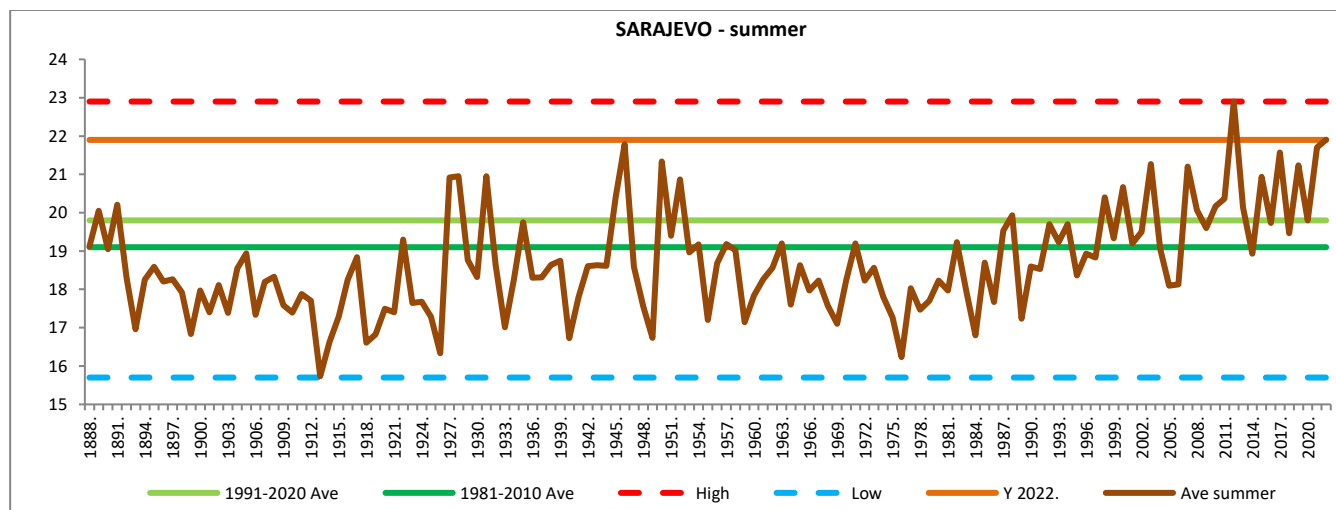
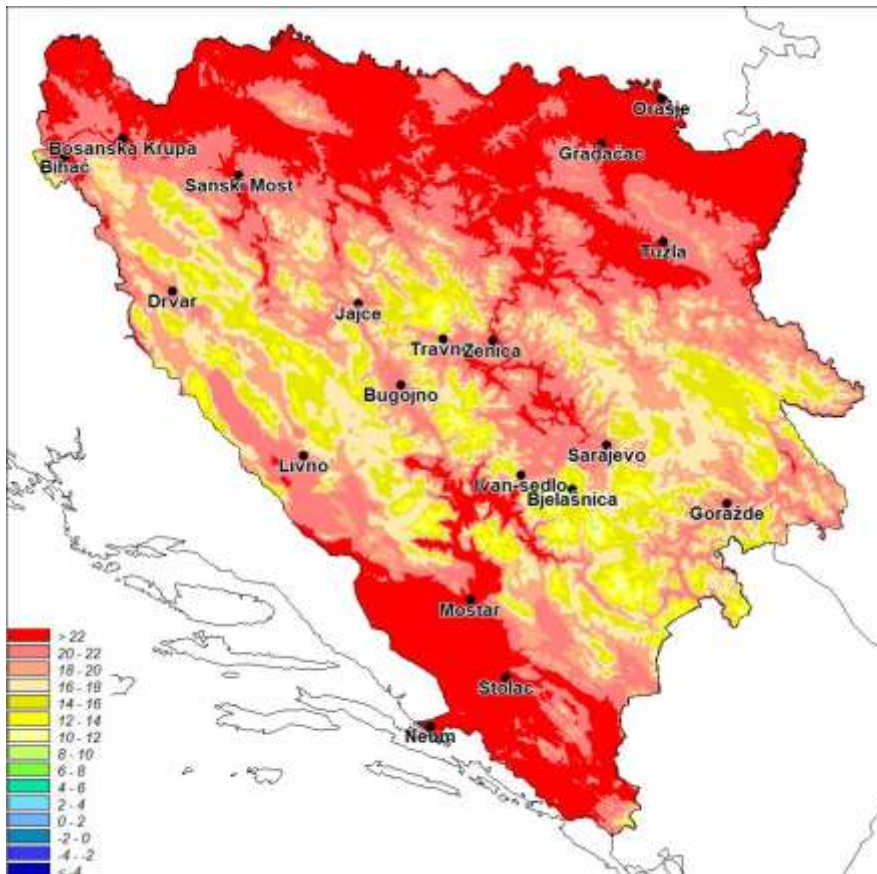
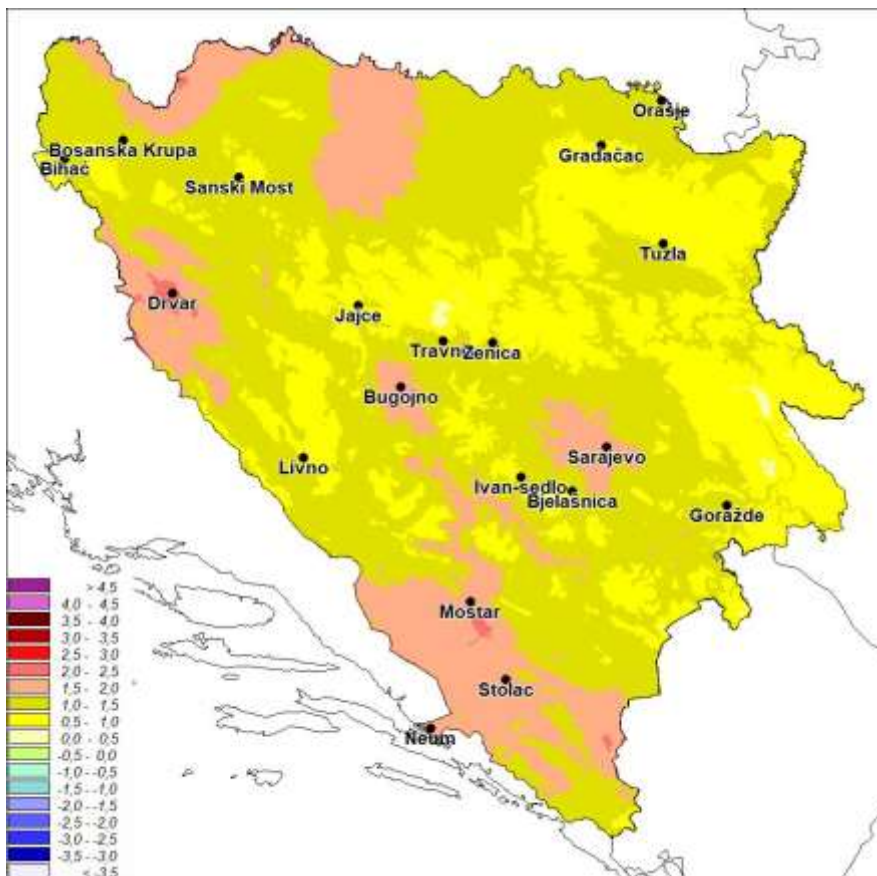


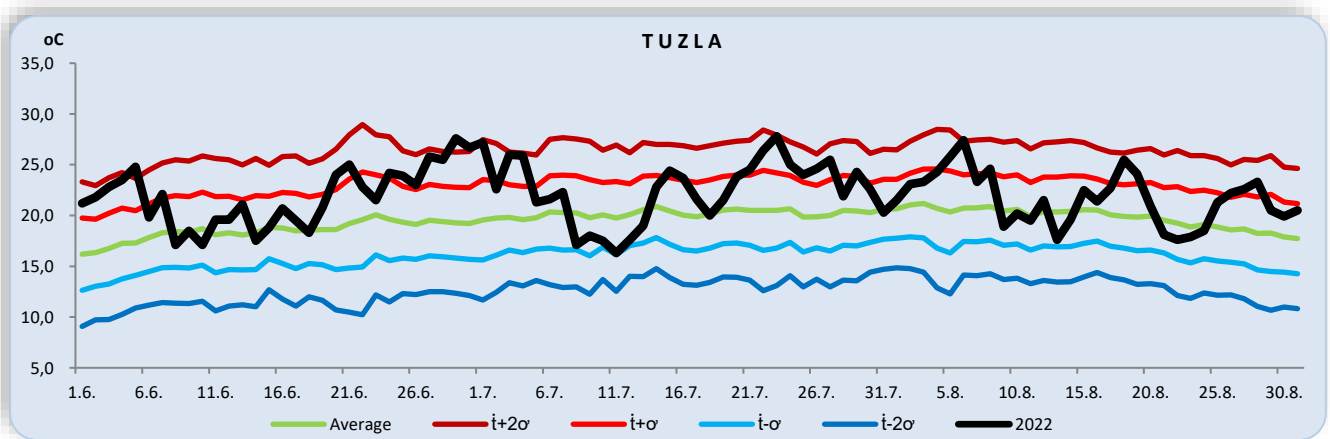
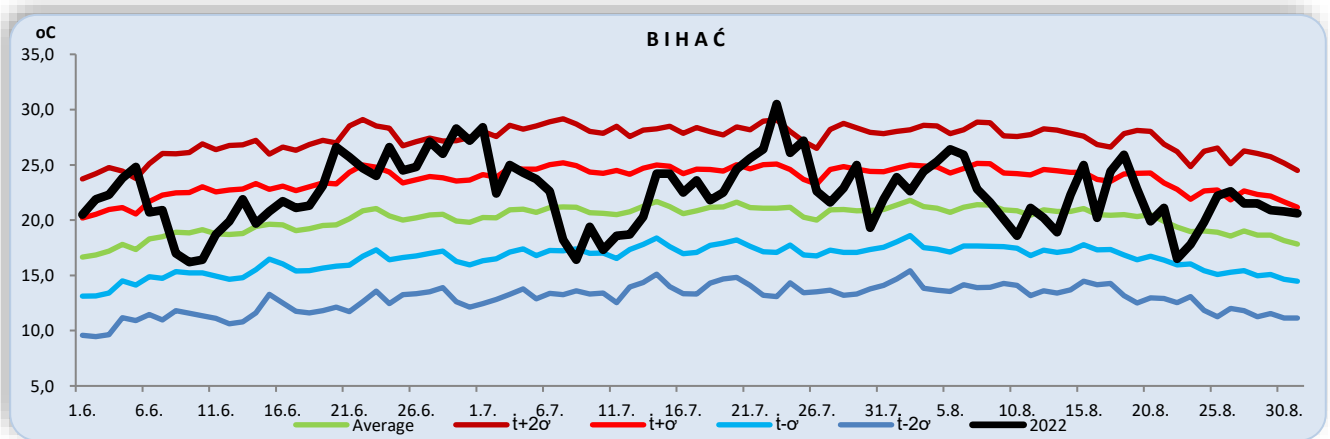
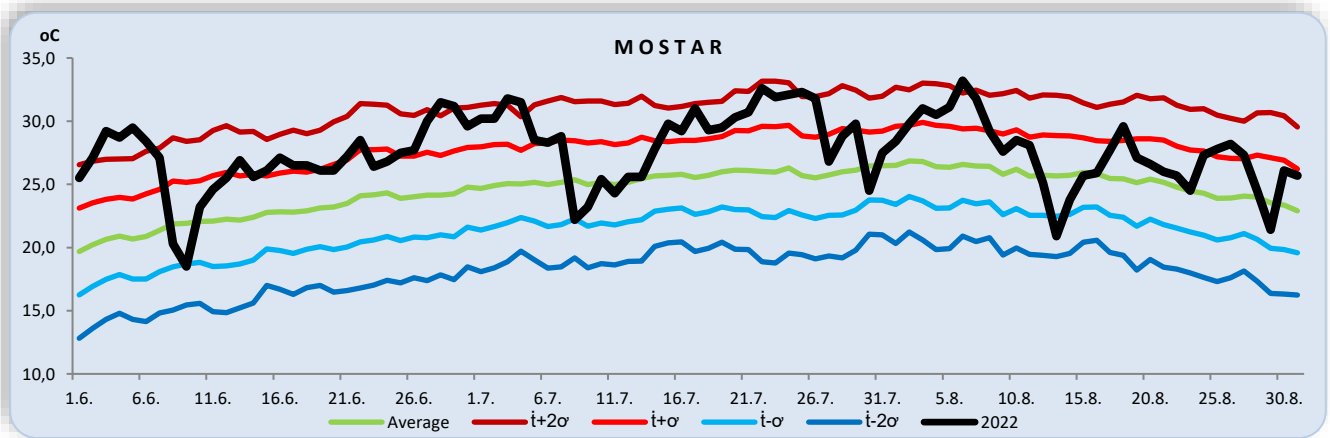
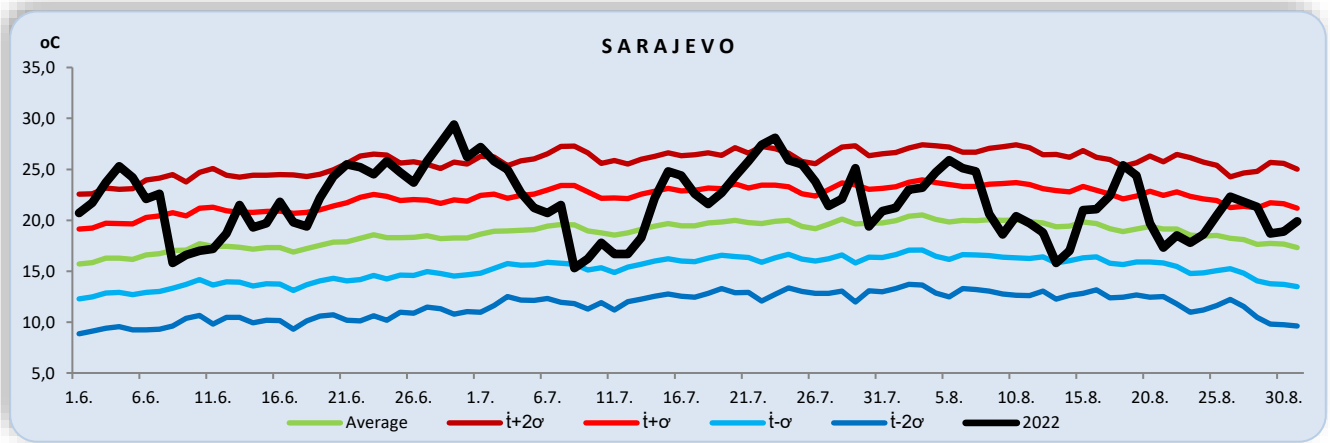
Table 3 Summer temperature in Sarajevo



Map 1 Mean air temperature summer 2022. year (°C)



Map 2 Air temperature during summer 2022. using percentile method compared to the 1991-2020 base period



Graph 1-4 Mean daily air temperatures during summer 2022. Year



Analysis of the monthly amount of precipitation expressed in % of average values shows that during the summer 2022, deviations from normal precipitation amounts ranged from 33,3 % in Mostar, to 102,8 % in Zenica. By percentage amounts of precipitation are classified into categories of extremely dry, very dry, dry and normal.

The measured amounts of precipitation were in the range of 61 mm in Mostar to 265 mm in Bihac.

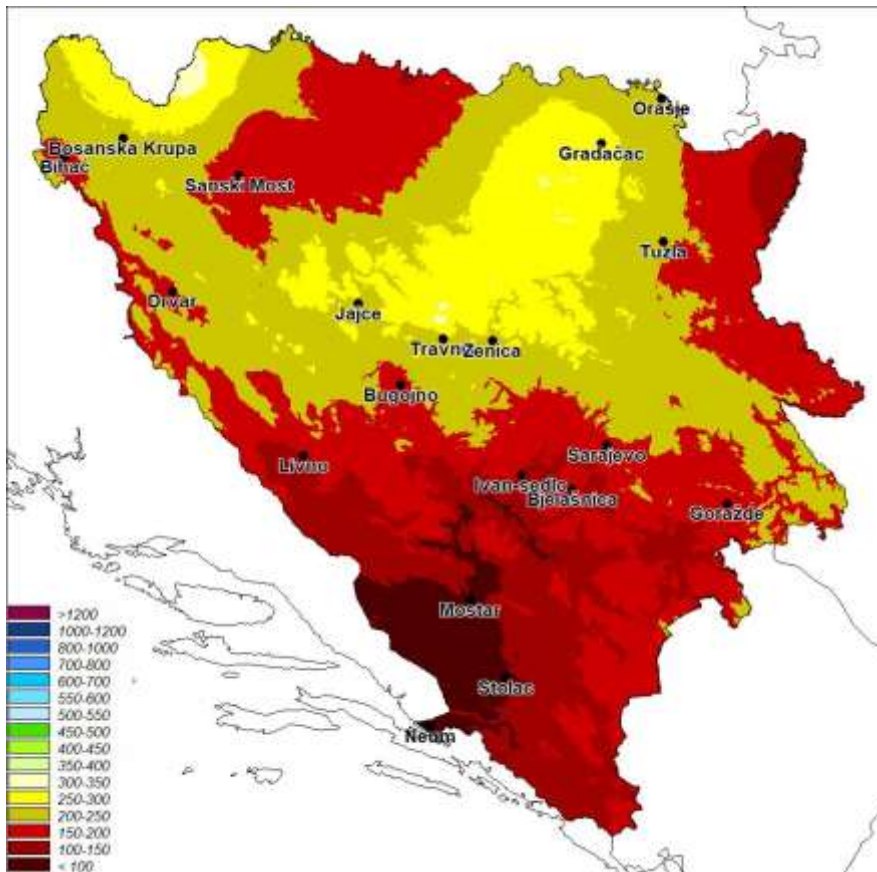
STATION	DEVIATION (%)				PERCENTILES
	JUNE	JULY	AUGUST	SUMMER <sup>1</sup>	
Bihać	72,1	57,6	70,7	66,9	16
Bjelašnica	54,7	49,3	68,3	57,0	11
Bugojno	68,3	88,8	96,8	83,3	28
Gradačac	65,0	70,6	236,4	109,3	65
Ivan-sedlo	43,3	52,5	78,5	56,1	9
Livno	16,6	86,1	151,8	78,7	34
Mostar	32,1	42,2	26,0	33,3	0
Neum	34,6				
Sarajevo	34,6	56,1	162,8	77,4	27
Sanski Most	26,0	108,4	73,4	64,6	16
Tuzla	80,3	24,2	124,5	72,0	27
Zenica	97,3	101,6	112,5	102,8	44

Table 5 Deviation summer precipitation in relation to the climatological standard normal and the corresponding percentiles

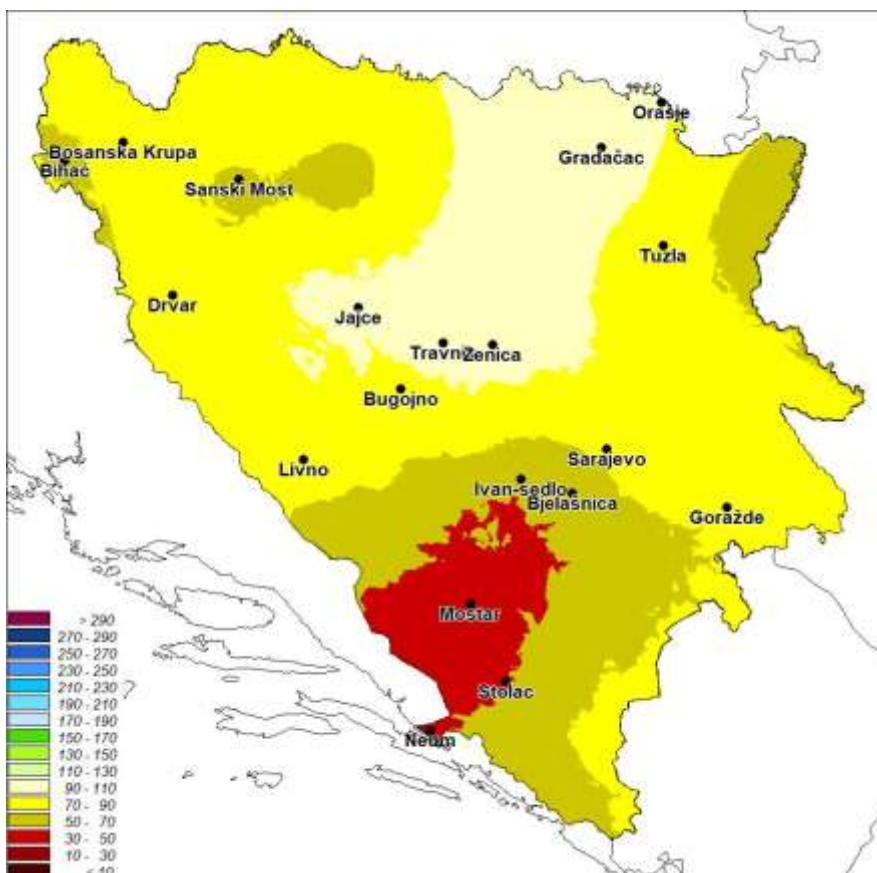
STATION	MOUNTH			STATION	MOUNTH		
	June	July	August		June	July	August
Bihać				Livno			
Bjelašnica				Mostar			
Bugojno				Neum			
Drvar				Sanski Most			
Gradačac				Sarajevo			
Ivan Sedlo				Tuzla			
Jajce				Zenica			



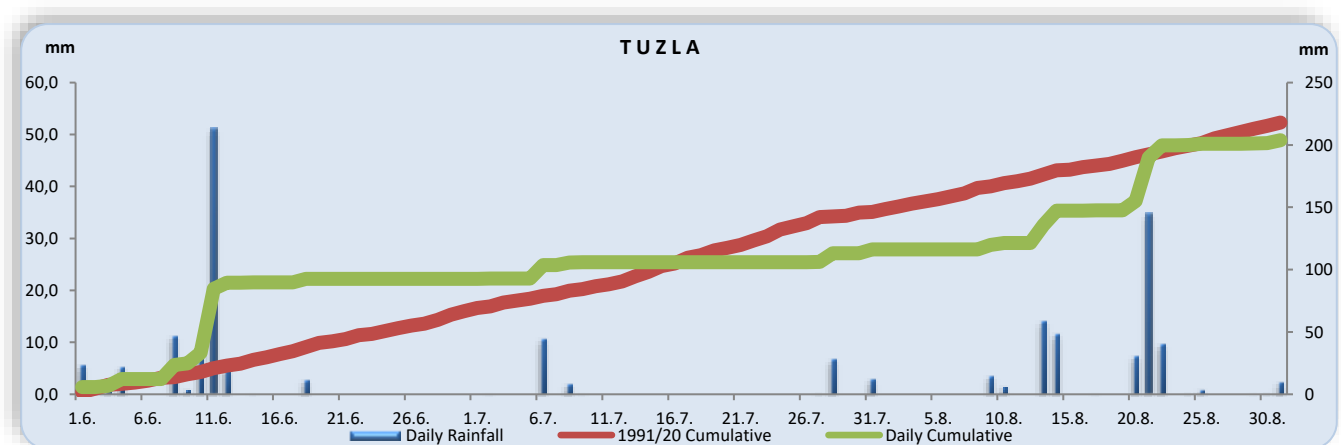
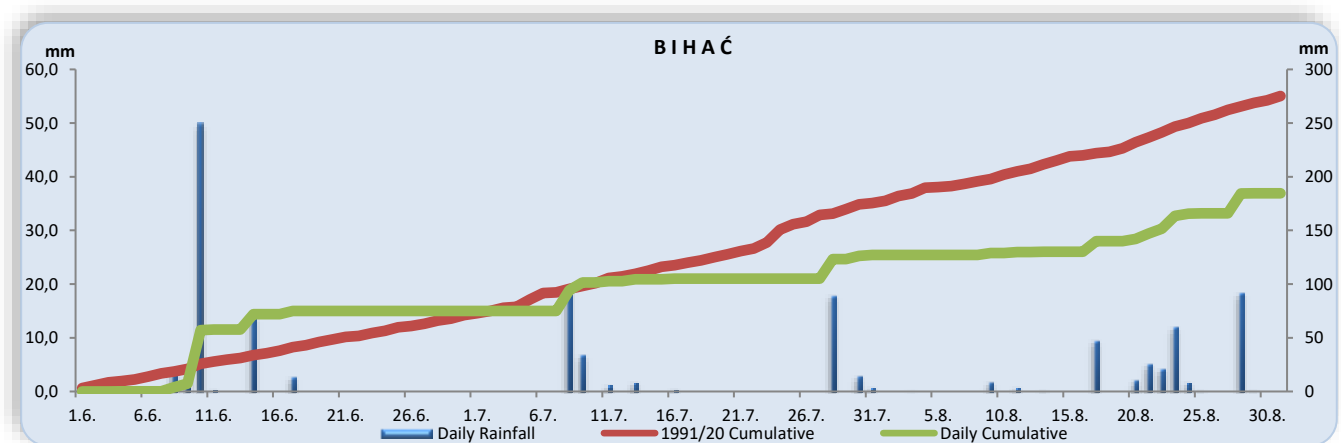
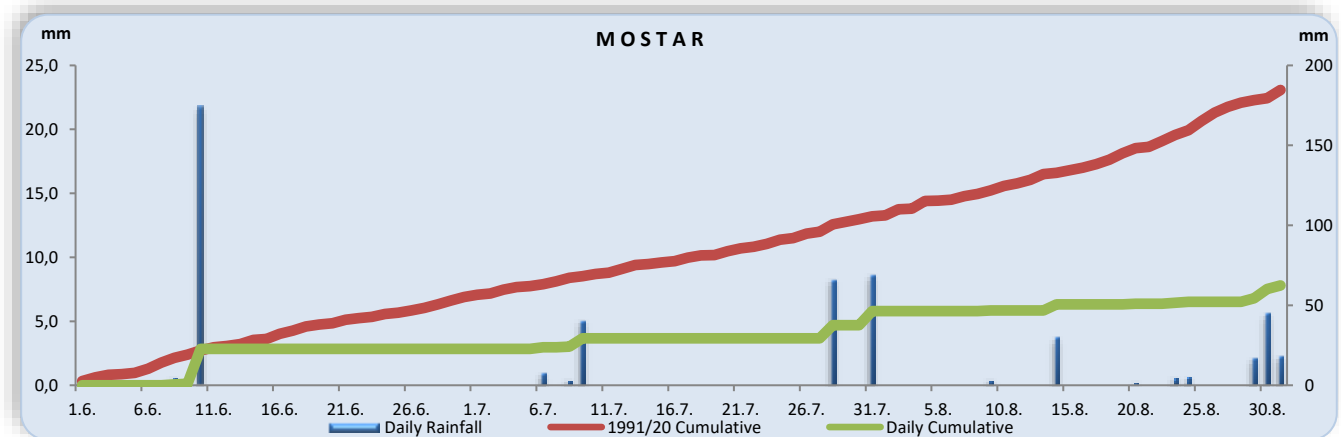
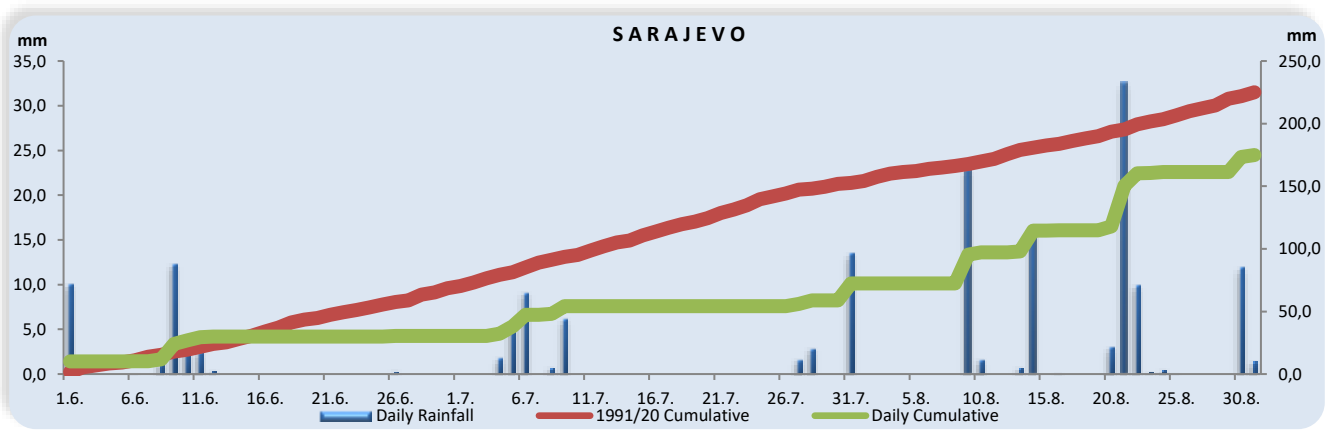
Table 6 Overview of marks on precipitation by month basis percentile



Map 3 Amount precipitation – summer 2022, year (mm)



Map 4 Precipitation sums using percentile method during summer 2022, compared to the base period (1991 – 2020)



Graph 5-8 daily and cumulative rainfall in the summer 2022 year.



Season		Air Temperature (°C)					Precipitation sums (mm)			
Station	Rank*	33	50	66	Observed value	Rank**	33	50	66	Observed Value
<b>Sarajevo</b>	1	19,6	19,2	18,7	21,9	25	258	228	202	175
<b>Mostar</b>	2	25,1	4,6	24,3	27,6	31	189	158	141	61
<b>Bihać</b>	2	20,6	20,2	19,8	22,4	28	325	274	232	185
<b>Tuzla</b>	2	20,2	19,5	19,0	22,0	25	332	282	251	204
<b>Zenica</b>	2	20,8	20,0	19,6	22,6	18	265	242	193	239
<b>Bugojno</b>	2	19,2	18,5	18,1	21,3	24	248	201	186	179
<b>Gradačac</b>	2	21,9	21,1	20,8	23,9	10	258	240	227	266
<b>Livno</b>	2	19,3	18,6	18,3	21,4	25	211	185	158	143
<b>San Most</b>	2	20,6	19,9	19,6	22,3	28	299	262	228	158
<b>Bjelašnica</b>	3	10,3	9,8	9,4	11,7	29	336	278	247	170

\*Rank – 1981-2010. (period) – warmest season

\*\*Rank – 1981-2010. (period) – highest seasonal precipitation

Country	Seasonal temperature JJA		Seasonal precipitation JJA		High Impact Events
	Observed	SEECOF - 27 climate outlook for temperature	Observed	SEECOF - 27 climate outlook for precipitation	
Bosnia and Herzegovina (FBiH)	Above normal in almost entire Bosnia and Herzegovina (very warm and extremely warm)	Above normal (10, 20, 70) In Bosnia and Herzegovina	Below normal in almost entire Bosnia and Herzegovina;  Extremely dry - Mostar	Below normal (50,30,20)	Summer - At several stations during the summer, precipitation fell below 90 mm. Sarajevo - the second hottest summer - June Temperature record on Meteorological stations: Zenica. Floods (smaller rivers) in the cities od Tešanj, Maglaj Srebrenik etc. - July Temperature record on Meteorological station Zenica Wildfires in Hercegovina - August Wildfires in Hercegovina  Extremely warm west and central part.

<sup>1</sup> The actual amount of precipitation compared to the average sum

Photo:

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