

CLIMATOLOGICAL ANALYSIS

SEASON

SUMMER 2024



BOSNIA AND HERZEGOVINA
FEDERATION OF BOSNIA AND HERZEGOVINA
FEDERAL HYDROMETEOROLOGICAL INSTITUTE

CLIMATOLOGICAL ANALYSIS SEASONE SUMMER 2024.

Sarajevo, October 2024.

Mean air temperatures during the climatological summer 2024. (1st June – 31st August 2024.) ranged between 21,9 °C in Livno and 28,5°C in Mostar. On the mountain areas air temperatures were in the range of 13,3 °C on Bjelasnica to 18,7 °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 1,8°C on Ivan-sedlo to 3,8 °C in Gradacac. By percentage temperature values are classified into the category of very warm and extremely warm.

STATION	DEVIATION (1991-2020.)					PERCENTILES
	<i>mnv</i>	JUNE	JULY	AUGUST	SUMMER	
Bihać	246	1,9	2,7	3,6	2,7	100
Bjelašnica	2067	3,1	3,0	2,9	3,0	100
Bugojno	562	3,0	3,3	3,8	3,4	100
Drvar	485	1,8	2,8	3,6	2,7	100
Gradacac	225	2,9	3,8	4,6	3,8	100
Ivan-sedlo	970	2,0	1,7	1,8	1,8	95
Jajce	428	2,7	3,4	4,1	3,4	100
Livno	724	2,0	2,4	2,9	2,5	96
Mostar	99	2,5	3,4	3,6	3,2	100
Neum	9	1,8	1,9	1,9	1,9	95
Sarajevo	630	3,2	3,3	3,9	3,5	100
Sanski Most	154	2,0	2,7	3,6	2,8	100
Stolac	72	2,1				
Tuzla	305	3,0	3,3	4,2	3,5	100
Zenica	345	2,4	2,5	4,3	3,1	100

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

STATION	MOUNTH			STATION	MOUNTH		
	June	July	August		June	July	August
Bihac	Yellow	Red	Red	Livno	Yellow	Red	Red
Bjelasnica	Red	Red	Red	Mostar	Red	Red	Red
Bugojno	Red	Red	Red	Neum	Red	Red	Red
Drvar	Yellow	Red	Red	Sarajevo	Red	Red	Red
Gradacac	Red	Red	Red	Sanski Most	Yellow	Red	Red
Ivan-sedlo	Red	Red	Red	Tuzla	Red	Red	Red
Jajce	Red	Red	Red	Zenica	Yellow	Red	Red



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

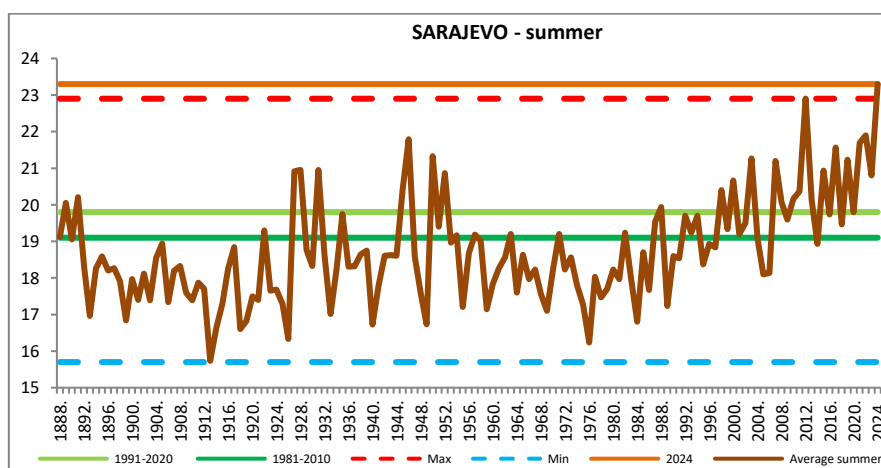
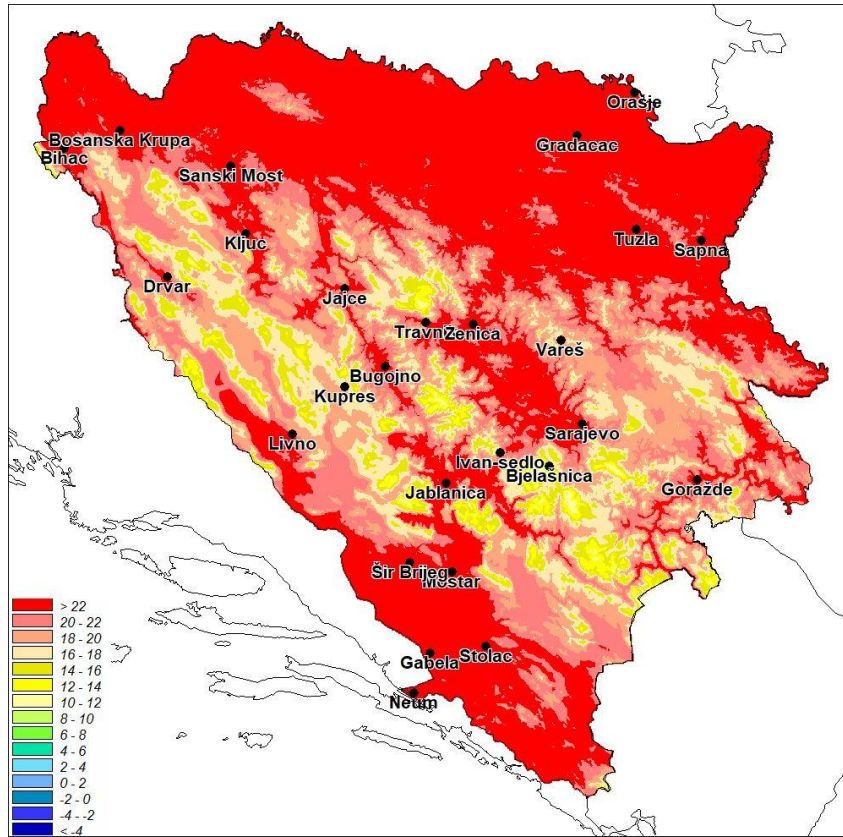
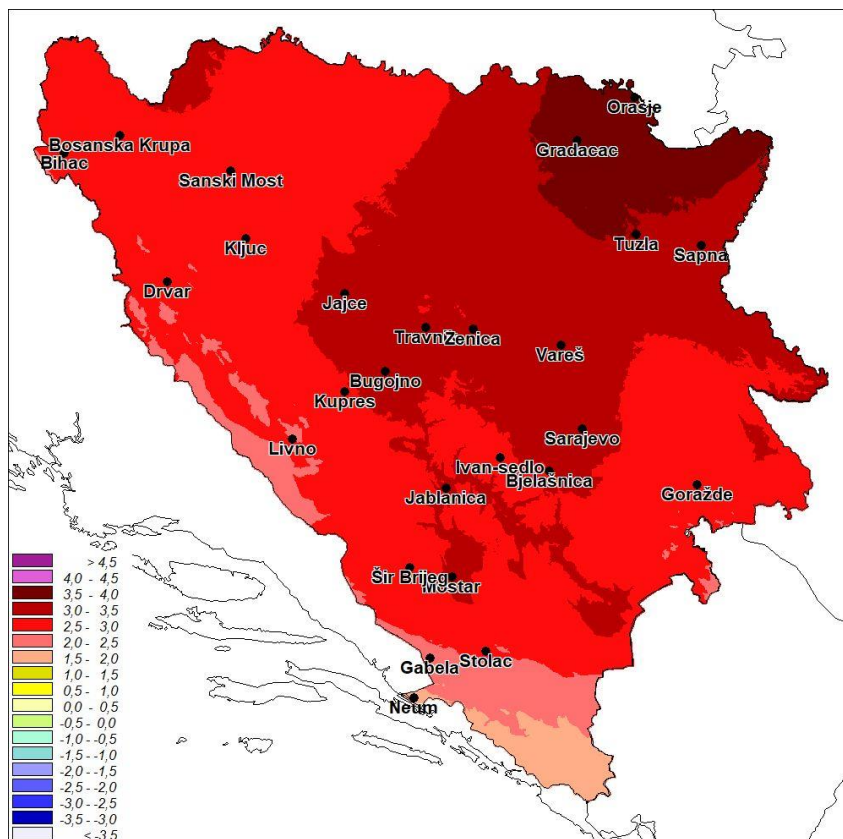


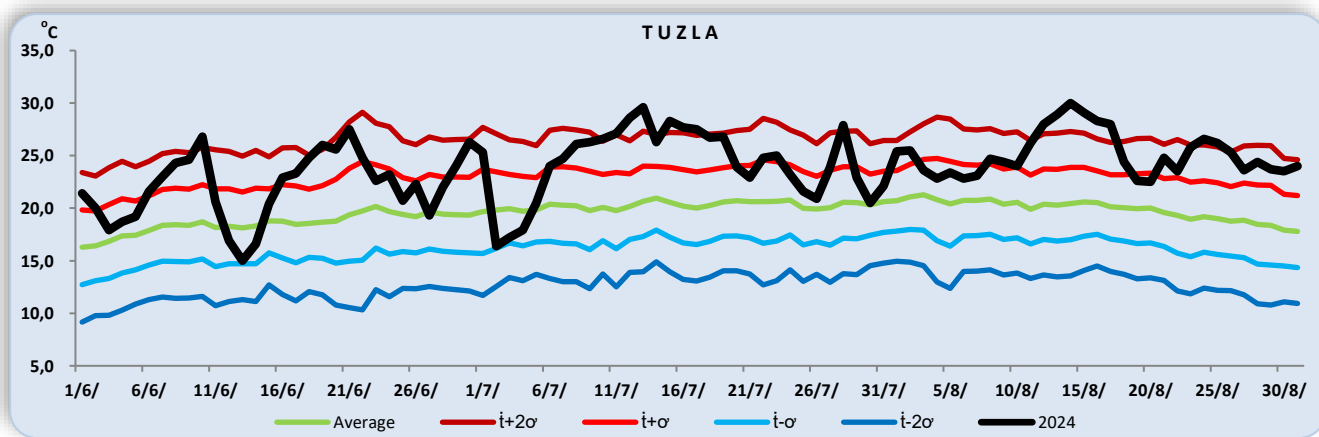
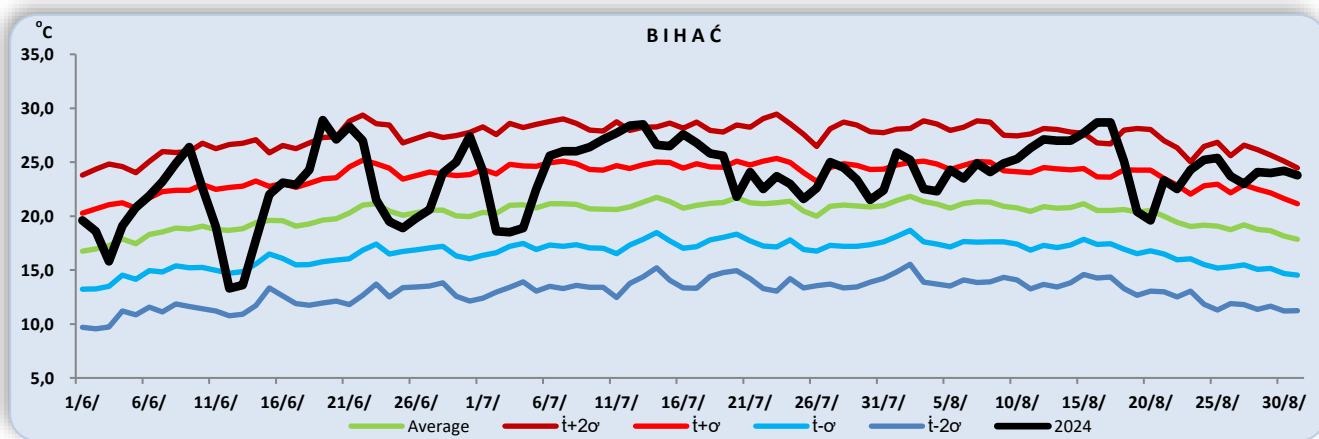
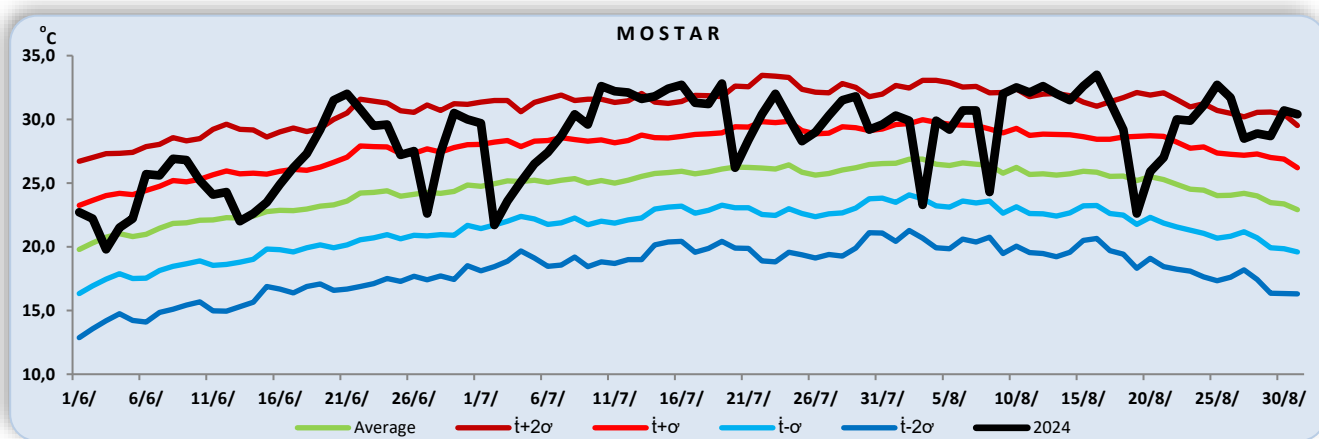
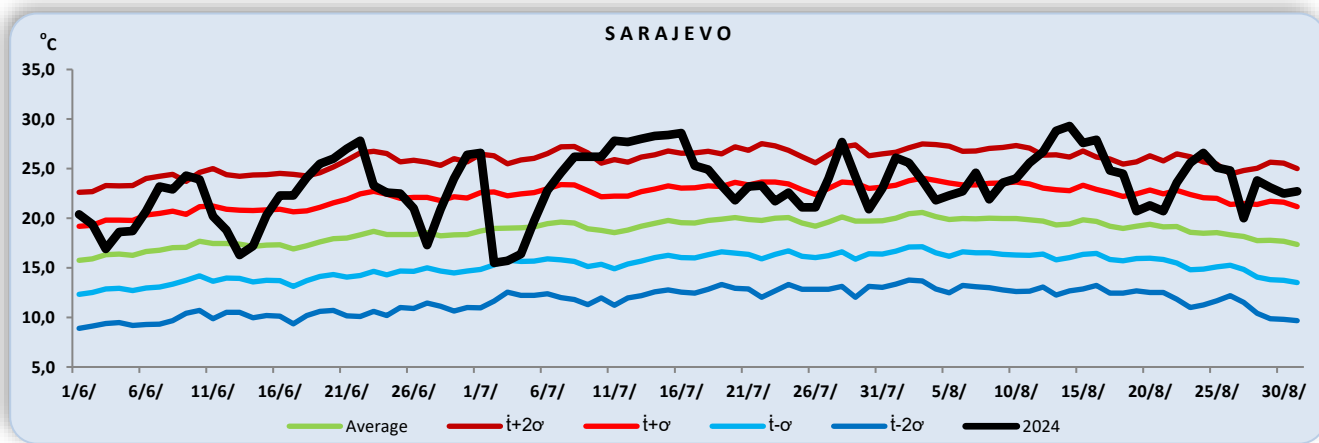
Table 3 Summer temperature in Sarajevo



Map 1 Mean air temperature summer 2024. year (°C)



Map 2 Air temperature during summer 2024, using percentile method compared to the 1991-2020 base period



Graph 1-4 Mean daily air temperatures during summer 2024. Year

Analysis of the monthly amount of precipitation expressed in % of average values shows that during the summer 2024., deviations from normal precipitation amounts ranged from 28 % in Zenica to 128 % in Livno. By percentage amounts of precipitation are classified into categories of very dry, dray, normal and wet.

The measured amounts of precipitation were in the range of 65 mm in Zenica to 318 mm in Bihac.

STATION	DEVIATION (1991-2020)					PERCENTILES
	<i>mnv</i>	JUNE	JULY	AUGUST	SUMMER ¹	
Bihac	246	158,0	97,1	80,8	115,3	63
Bjelasnica	2067	76,3	44,9	26,4	51,4	10
Bugojno	562	66,6	54,9	72,0	64,2	13
Drvar	485	110,5	65,8	72,0	96,7	35
Gradacac	225	108,8	87,8	19,7	79,9	32
Ivan-sedlo	970	105,8	47,8	64,7	75,9	24
Jajce	428	90,8	121,8	46,1	89,0	32
Livno	729	135,9	91,8	149,5	127,7	80
Mostar	99	50,4	31,8	97,9	59,7	20
Neum	9	25,5	109,4	80,8	63,3	39
Sarajevo	630	85,6	43,6	28,8	55,8	9
Sanski Most	154	122,3	80,4	47,2	88,5	36
Tuzla	305	97,8	44,2	9,2	57,4	11
Zenica	345	32,8	23,8	26,2	27,8	4

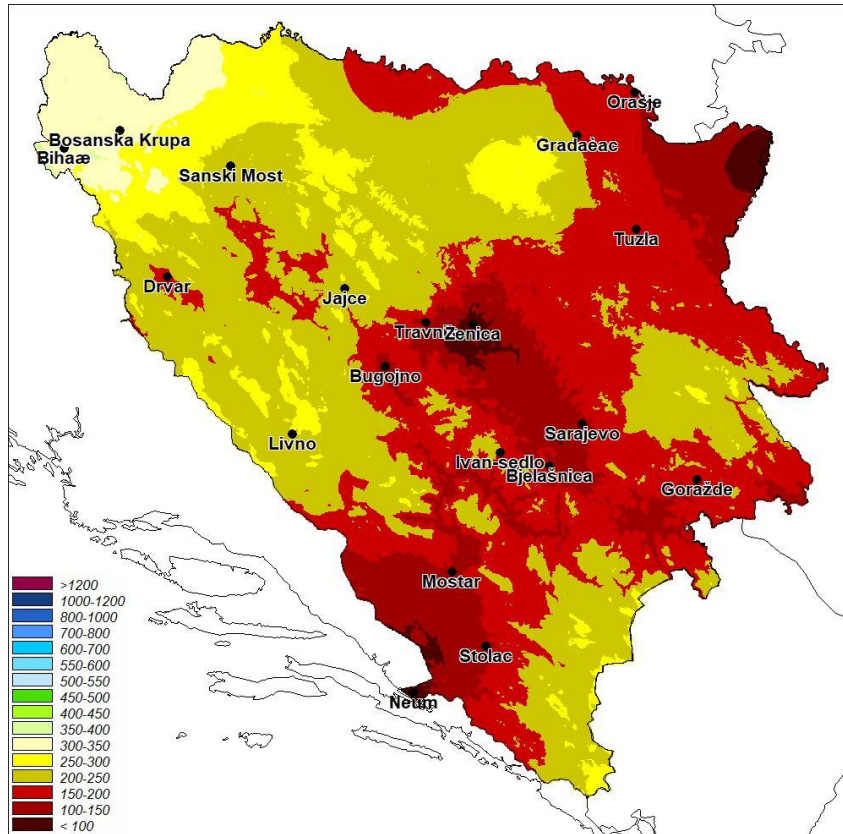
Table 5 Deviation summer precipitation in relation to the climatological standard normal and the corresponding percentiles

STATION	MOUNTH			STATION	MOUNTH		
	June	July	August		June	July	August
Bihac				Livno			
Bjelasnica				Mostar			
Bugojno				Neum			
Drvar				Sanski Most			
Gradacac				Sarajevo			
Ivan Sedlo				Tuzla			
Jajce				Zenica			

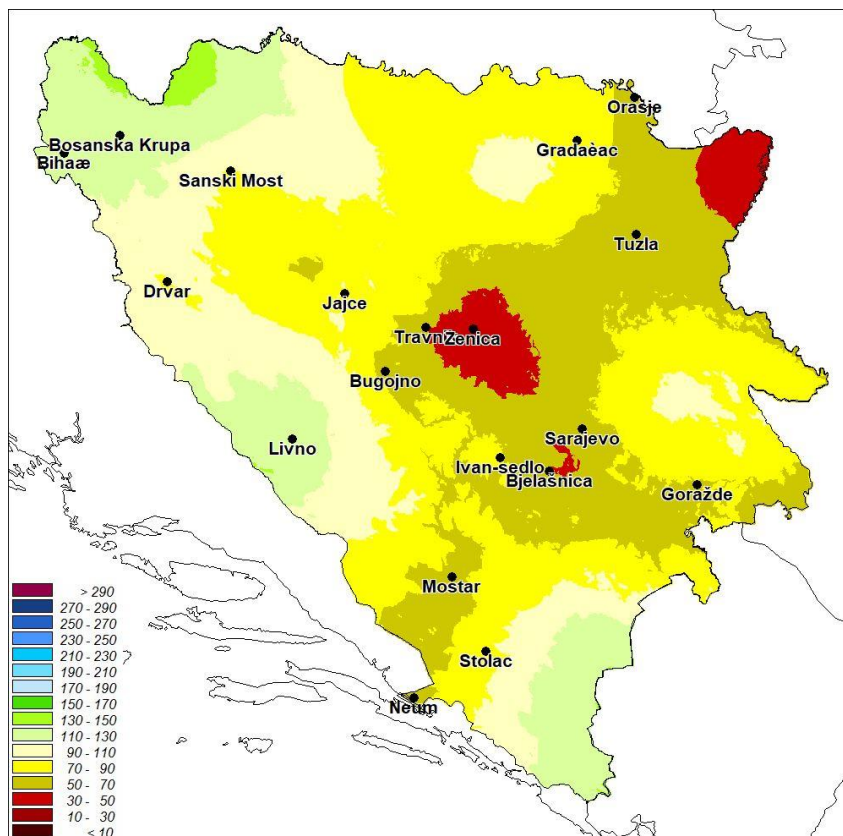


Table 6 Overview of marks on precipitation by month basis percentile

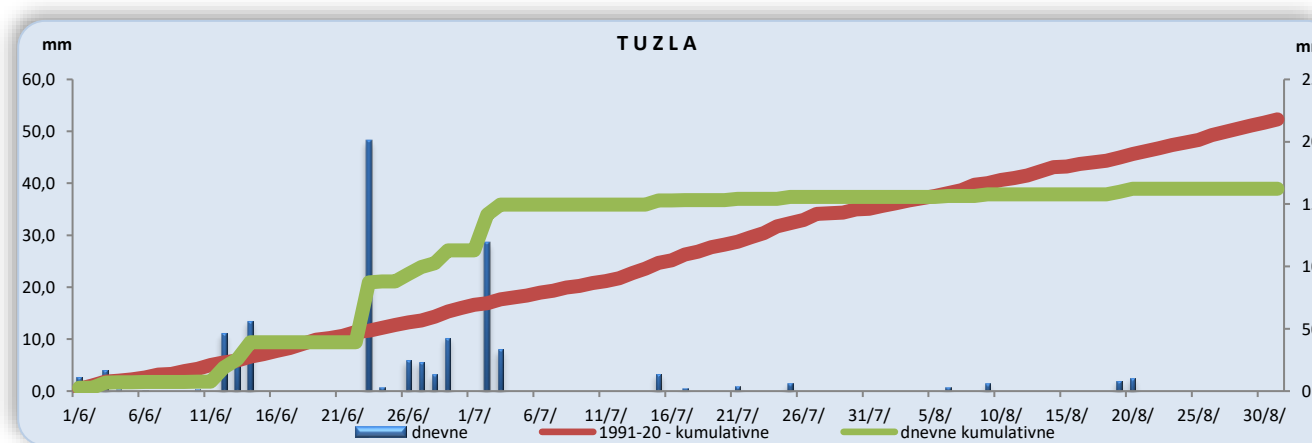
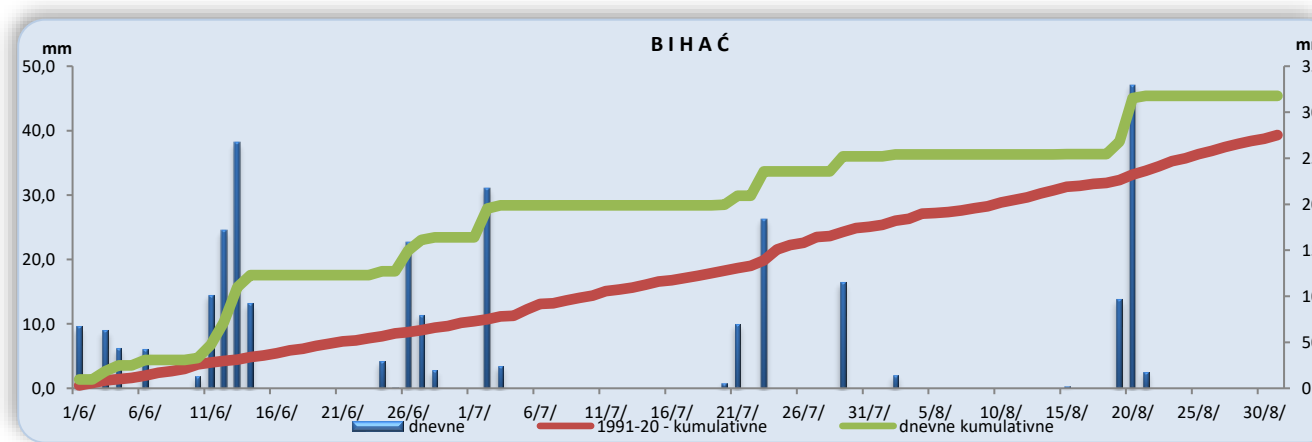
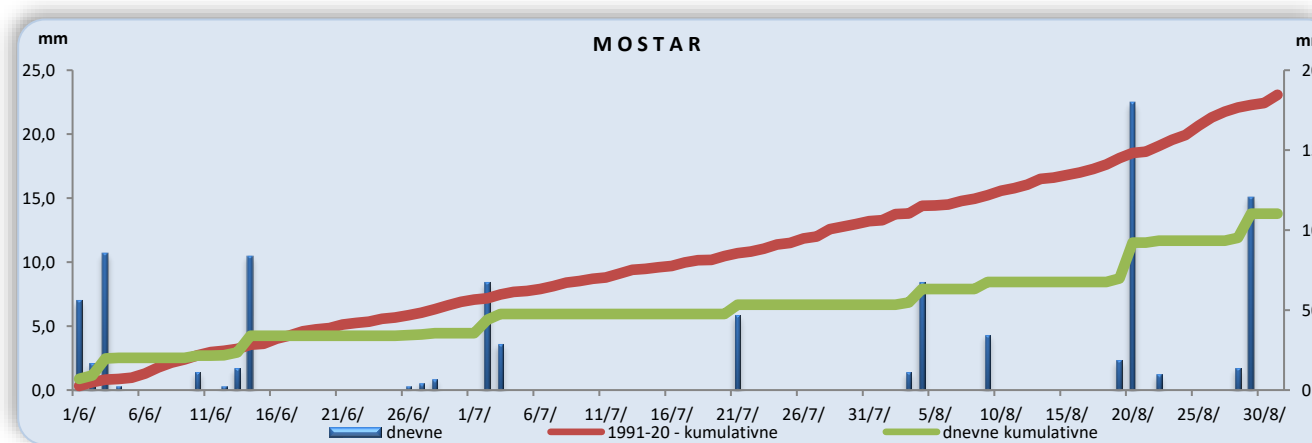
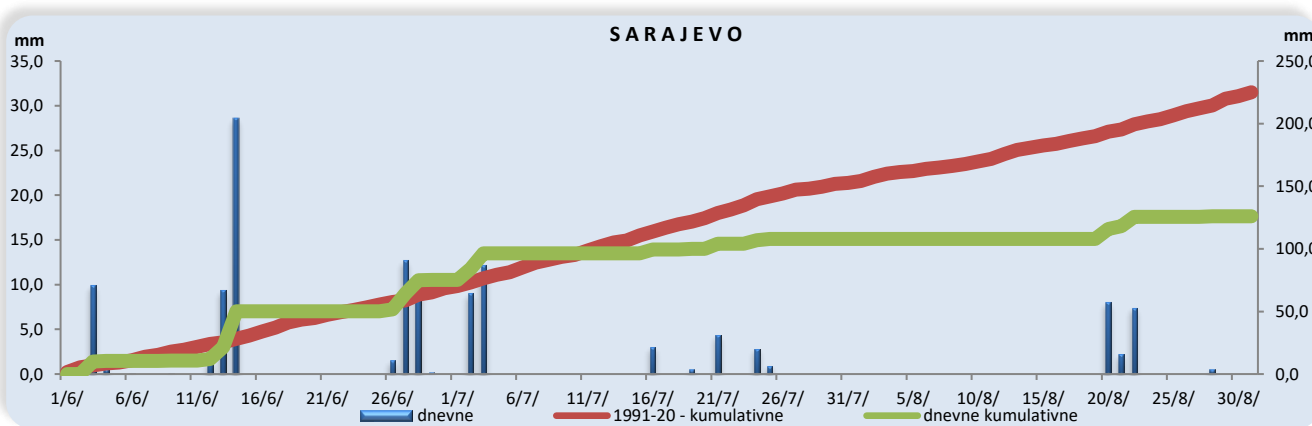
¹Realized amounts of precipitation in relation to average amounts



Map 3 Amount precipitation – summer 2024, year (mm)



Map 4 Precipitation sums using percentile method during summer 2024, compared to the base period (1991. – 2020.)



Graph 5-8 daily and cumulative rainfall in the summer 2024 year.

Season		Air Temperature (°C)					Precipitation sums (mm)			
Station	Rank*	33	50	66	Observed value	Rank**	33	50	66	Observed Value
Sarajevo	1	19,6	19,2	18,7	24,3	29	258	228	202	126,0
Mostar	1	25,1	4,6	24,3	29,9	25	189	158	141	110,3
Bihac	1	20,6	20,2	19,8	24,6	12	325	274	232	317,8
Tuzla	1	20,2	19,5	19,0	25,0	28	332	282	251	162,3
Zenica	1	20,8	20,0	19,6	25,6	30	265	242	193	64,5
Bugojno	1	19,2	18,5	18,1	23,5	27	248	201	186	137,8
Gradacac	1	21,9	21,1	20,8	27,2	22	258	240	227	194,0
Livno	2	19,3	18,6	18,3	22,9	7	211	185	158	231,6
San Most	1	20,6	19,9	19,6	24,4	20	299	262	228	216,9
Bjelasnica	1	10,3	9,8	9,4	14,2	28	336	278	247	152,8

*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 - 31 climate outlook for temperature	Observed	SEECOF - 31 climate outlook for precipitation	
Bosnia and Herzegovina (FBiH)	Above normal in almost entire Bosnia and Herzegovina	Above normal (10, 20, 70) In Bosnia and Herzegovina)	Below average in most of Bosnia and Herzegovina. Above average - west and southwest	Below normal (50,30,20)	The warmest in July nad August in entire Bosnia and Herzegovina. The absolute maximum temperature in August was exceeded two days in a row. The warmest summer since official measurements began