National Climate Bulletin and the assessment of the SEECOF-29

Climate outlook for NHMS for summer 2023

Highlights

(prepared by Slavica Micev)

Assessment were done with respect to climatological normal 1991-2020.

According to the percentiles, average temperature for summer 2023 across Montenegro was in category ***normal, warm, very warm****. Summer precipitation was in category* ***normal, wet, very wet and extremely wet.***

The summer 2023. is in the 10 wettest years in whole country except in Kolašin, Berane, Rožaje and Žabljak.

Air temperature anomalies

Average temperature was in range from 16 ^{0}C in Žabljak to 27.5 ^{0}C in Podgorica (i.e. +0.6^{0}C higher than normal for 1991-2020). Temperature anomalies were positive and in range from +0.6 ^{0}C in Podgorica to + 1.8 ^{0}C in Kolašin (mountainous region).

Number of tropical days (Tx>=30 ^{0}C) was from 2 days in Žabljak (1450 m asl) to 66 days in Podgorica (49 m asl). Number of tropical days (Tn>=20 ^{0}C) was from 1 day in Žabljak, Kolašin and Cetinje to 64 in Podgorica.

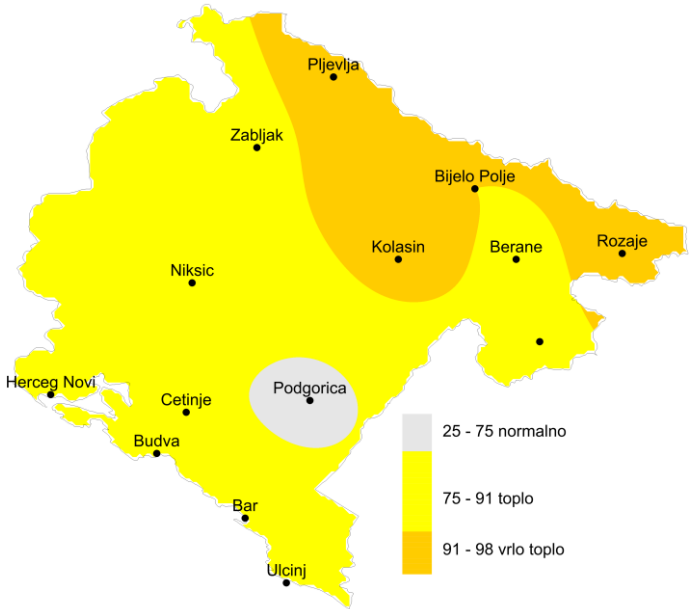

Figure 1. Spatial distribution of percentile for summer temperature anomalies with respect to the 1991-2020 climatological mean

Anomalies of precipitation

Total amount of precipitation was in range from the 206 mm in Berane to the 506 mm in Cetinje. The amount of precipitation was 278 mm (+82% more than normal in 1991-2020). Anomalies of precipitation were in range from the 93% in Kolašin to the 225% in Herceg Novi.

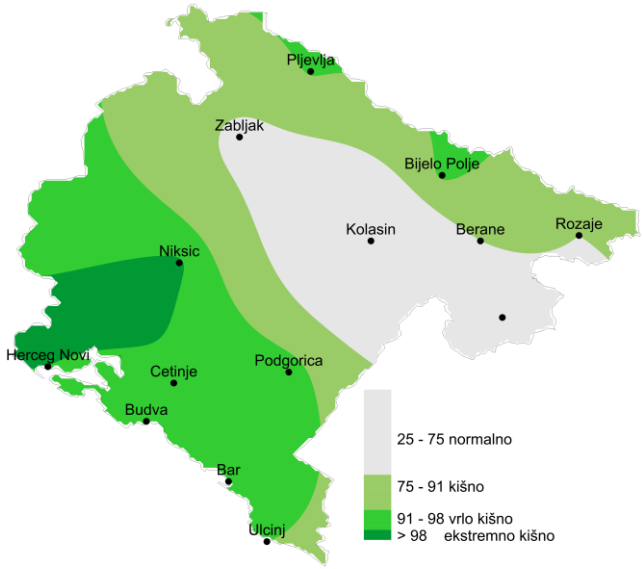

Figure 2. Spatial distribution of percentile for the summer precipitation anomalies with respect to the 1991-2020 climatological mean

SEECOF – 29 Climate outlook validation for the summer

(prepared by Mirjana Ivanov)

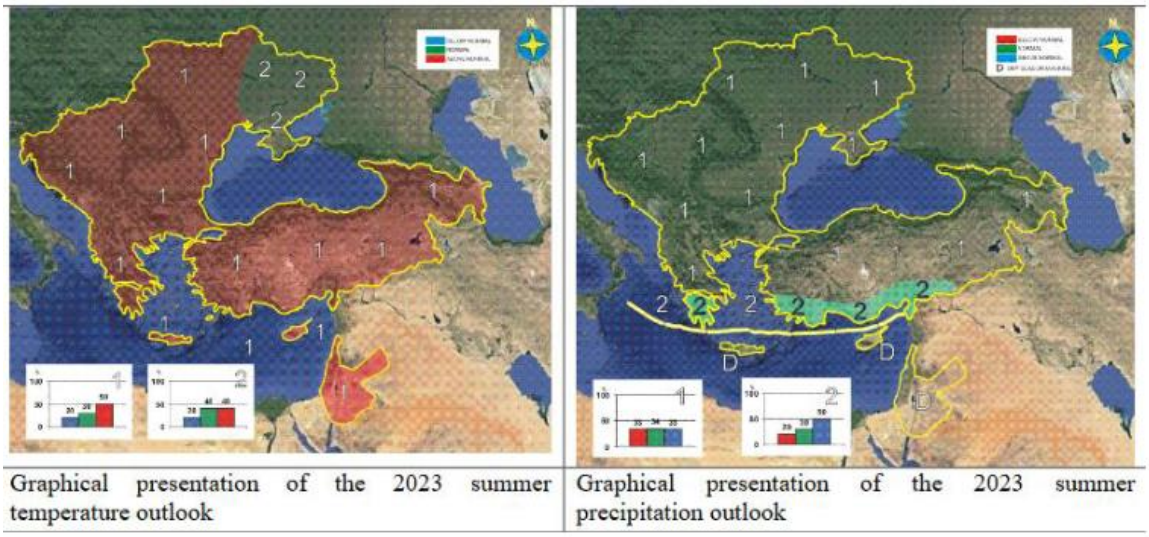

Figure 3. Graphical presentation of the climate outlook for the summer 2023 for the SEECOF region; Temperature outlook (left) and precipitaton outlook (right)

Climate outlook for the summer temperature shows 50% probability for the temperature above normal and 20% probability below normal. That matches with observed temperature in whole country was very good.

Climate outlook for the summer precipitation shows equal probability for the precipitation what is maching with the samll part of mountainous region (figure 2). In the rest of the country observed data were above normal for the 1991-2020.

what matched with observed precipitation in the belt from Podgorica over Cetinje to Herceg Novi (figure 2). In the rest of the country precipitation was in normal range.

Country	Seasonal temperature (JJA)		Seasonal precipitation (JJA)		High Impact Events
	Observed	SEECOF-29 climate outlook for temperature	Observed	SEECOF-28 climate outlook for precipitation	
Montenegro	**Above normal**	50% above normal 30% normal 20% below normal	**Normal** in the small part of Montenegro in the north mountainous region; **Above normal** in the largest part of the country	**No predictive signal** (33,34,33)	24.06.2023: Storm (heavy precipitation, thundering and wind gust) in whole country. In some hilly places it was followed by hail. Wind broke branches in Podgorica. 26.07.2023: Strong wind on the southern coast. 19.08.2023. Hail in Bijelo Polje and surrounding settlements (northern region). Many properties were flooded and basements. Sewage holes spilled over the gardens. 

					  Photo: Jadanka Ćetković, source https://www.vijesti.me/vijesti/drustvo/670242/nevrijeme-u-bijelom-polju-pao-grad-velicine-oraha-poplavilo-vise-imanja-i-podruma The hail was falling 30 minutes affecting Plant production and several local roads. 29.08.2023. Storm impact on Podgorica (capital town). Due to strong wind one tree fell and one person was injured. 

					  Source: Oči Podgorice/Facebook, Vijesti