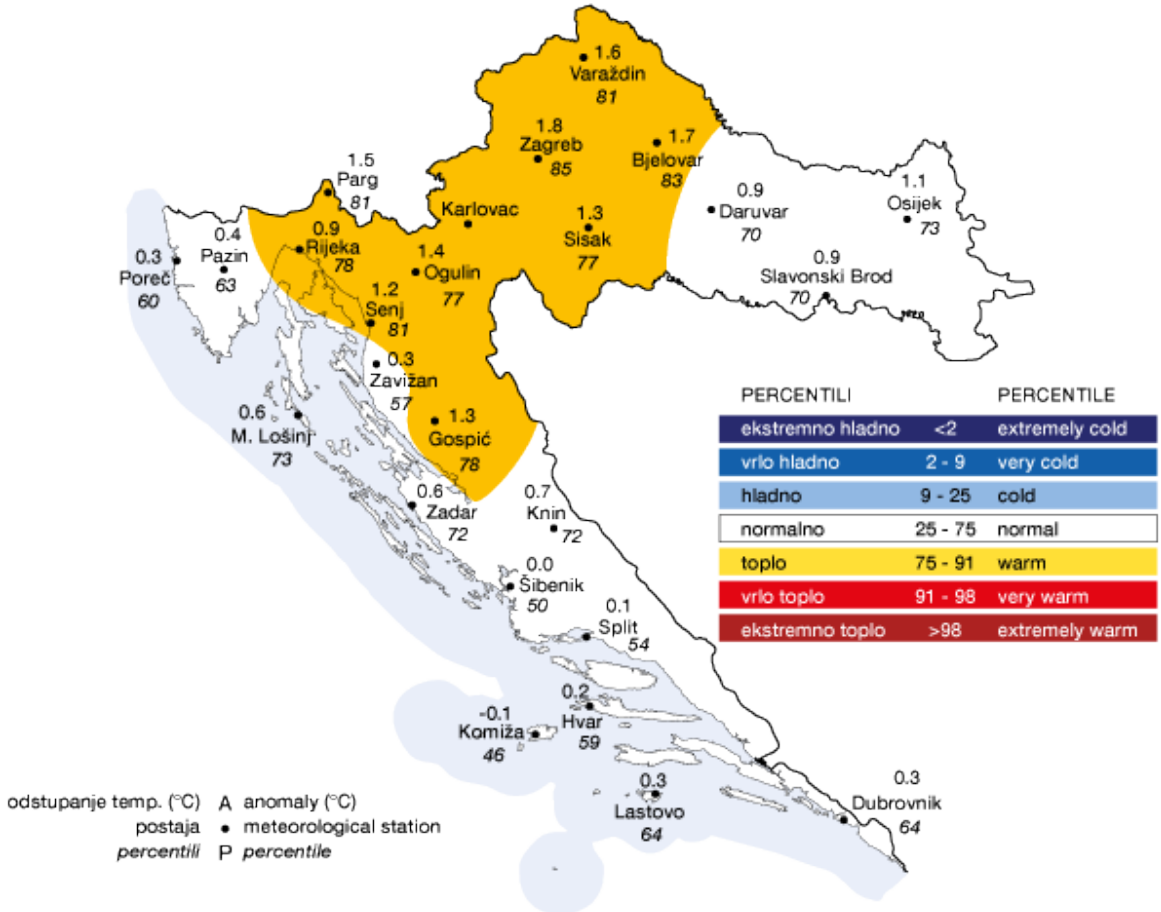
Climate Report for Croatia for winter 2018/2019

Air temperature anomalies for Croatia in winter 2018/2019

The average winter air temperature (December 2018, January 2019, February 2019) throughout Croatia was above the multi-annual average (**1981 - 2010**) with the exception of Komiža where it was slightly below the average. Corresponding air temperature anomalies for winter 2018/2019 were within the range from -0.1 °C to 1.8 °C.

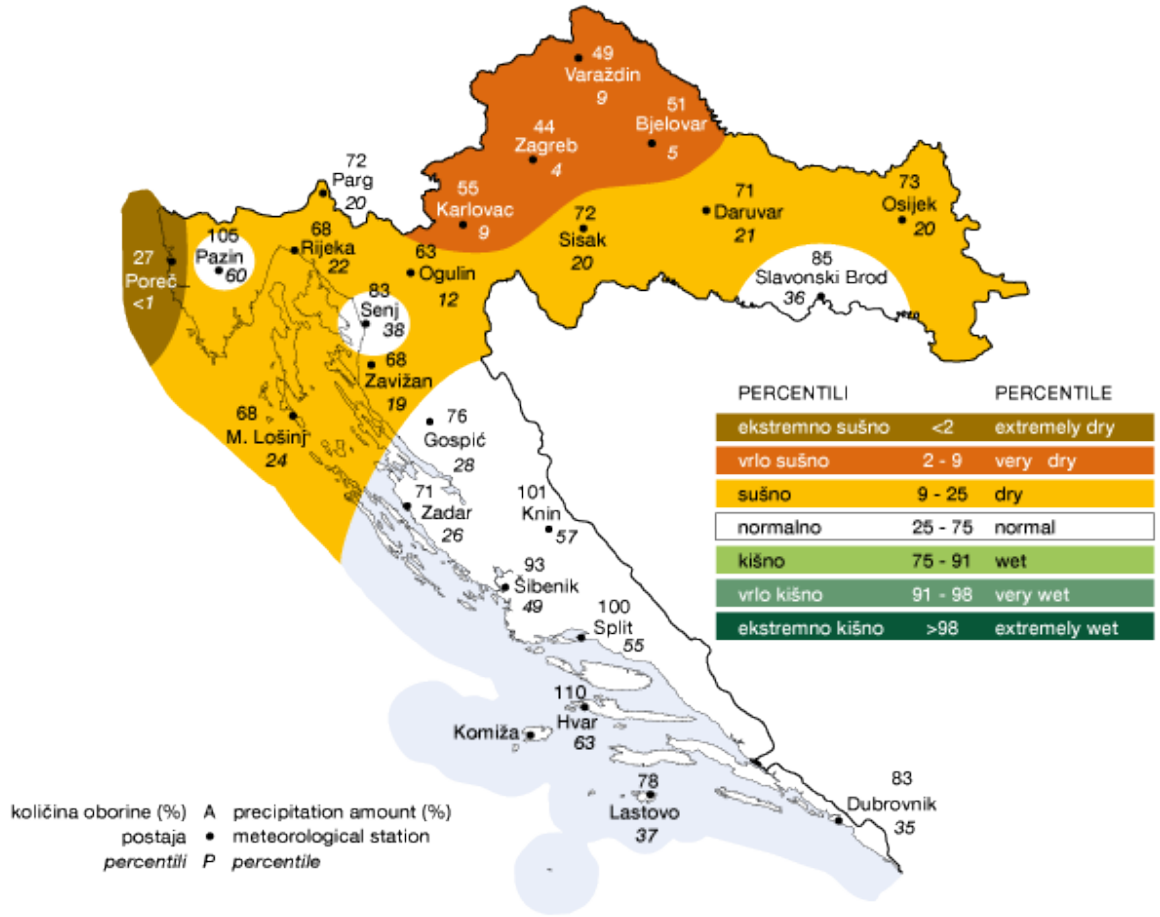
According to percentile ranks and classification ratings, thermal conditions in Croatia for winter 2018/2019 described by the following categories: **normal** (Eastern Croatia as well as Northern, Middle and Southern Adriatic and their hinterland) and **warm** (the rest of Croatia).



Precipitation amounts for Croatia in winter 2018/2019

An analysis of the precipitation amounts for winter 2018/2019 expressed as percentages (%) of **1981 - 2010** average, shows that these precipitation amounts were mainly below the average. Corresponding precipitation amounts for winter 2018/2019 were within the range of 27 % - 110 % of the multi-annual average for this season with the exception of station Split-Marjan where it was on par with the above mentioned average.

According to percentile ranks and classification ratings, the precipitation amounts for winter 2018/2019 have been described by the following categories: **extremely dry** (the wider area of the town of Poreč), **very dry** (Northwestern Croatia), **normal** (the wider areas of the towns of Pazin, Senj and Slavonski Brod as well as the Middle and Southern Adriatic and their hinterland) and **dry** (the rest of Croatia).



SEECOF-20 CLIMATE OUTLOOK VALIDATION

- **Air temperature anomalies for Croatia in winter 2018/2019**

According to the SEECOF-20 climate outlook (Figure 1), for Dalmatia and the hinterland of Dalmatia there were chance for normal or warmer than normal winter season. In the rest of the Croatia equal probabilities for below, near or above normal temperature were indicated. Probability for normal conditions as well as exceeding the average winter season temperature was 40% (probability for below normal was 20 %).

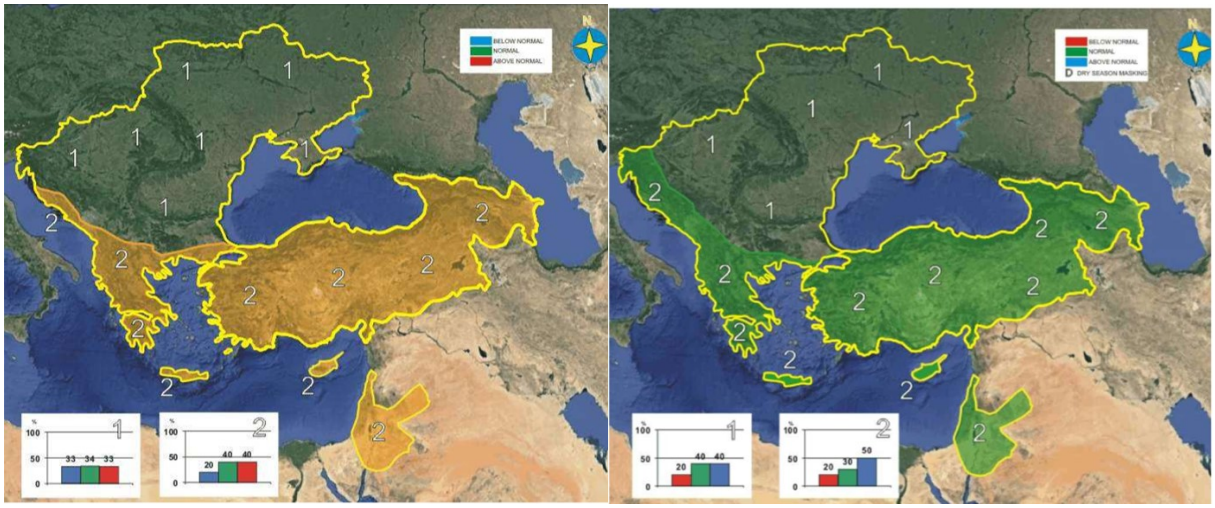


Figure 1. Graphical presentation of the winter 2018/2019 temperature outlook (left) and graphical presentation of the winter 2018/2019 precipitation outlook (right)

The winter season in Croatia according to percentile ranks and classification ratings (multi-annual average 1981-2010) was normal in the Eastern Croatia as well as Northern, Middle and Southern Adriatic and their hinterland and warm in the rest of the country (anomalies range is from 0,9 to 1,8 °C).

We can conclude that outlook for temperature was satisfying.

- **Precipitation amounts for Croatia in winter 2018/2019**

According to the SEECOF-20 climate outlook (Figure 1), in the north part of Croatia precipitation was forecasted to be near average or above average (probability for near and above normal was 40%, below normal 20%) and the wetter than normal conditions was forecasted along the Adriatic coast, in the hinterland and in the mountainous part of Croatia (probability for above normal was 50%, near normal 30%, below normal 20%).

The actual precipitation amounts were mainly below the average (1981 - 2010) in the most of the country, except in some part of Dalmatia and in the central part of Istrian peninsula, where was in the category normal.

We can conclude that outlook for precipitation was no so good as the outlook for temperature. Namely, there was no area with wetter than normal conditions in Croatia during winter season.

Country	Seasonal temperature (DJF)		Seasonal precipitation (DJF)		High Impact Events
	Observed	SEECOF-20 climate outlook for temperature	Observed	SEECOF-20 climate outlook for precipitation	
Croatia	**Normal** (Eastern Croatia, the greater part of Northern Adriatic, Dalmatia and its hinterland) **Above normal** (the rest of Croatia)	Normal or above normal (Dalmatia and its hinterland) (40,40,20) No predictive signal (in the rest of Croatia) (33,34,33)	**Normal** (Dalmatia and its hinterland and wider areas of towns Pazin, Senj, Slavonski Brod) **Below normal** (in the rest of Croatia)	Normal or above normal (in the north part of Croatia) (40,40,20) Above normal (along the Adriatic coast, in the hinterland and in the mountainous part of Croatia) (50,30,20)	**Winter 2018/2019 –** a few episodes with hurricane strong bora wind (NE wind along the Adriatic coast) was recorded. Sea and road traffic between continental part and Adriatic coast were complitely interrupted. The measured wind gusts on the Pag bridge on January 6 was 220 km/h. In Dalmatia, on February 23 the wind gusts in Split was 176 km/h and in Makarska 191 km/h. **In February 2019** was **warmer than normal** in the whole country. The apsolute maximum temperature was measured in north-west part of Croatia – in Sisak 23,5°C (measurement from 1949) and in Varaždin 22,5 °C (measurement from 1949) on 28 February.