



CLIMATE OUTLOOK FOR THE 2021 SUMMER SEASON FOR SERBIA AND THE SEECOF REGION

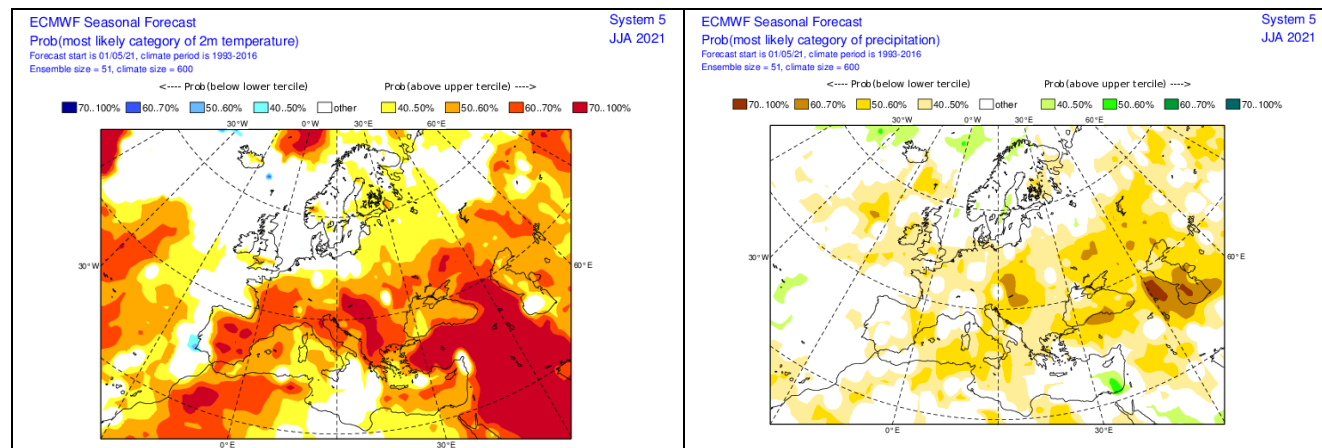
May 21st, 2021

INTRODUCTION

NHMS of Serbia regularly prepares climate outlook for our country based both the ECMWF seasonal forecast model outputs, **and the SEEVCCC regional climate model outputs**. This paper provides an extended climate outlook for summer season referring not only to Serbia, but the entire SEECOF region as well.

CLIMATE OUTLOOK FOR THE 2021 SUMMER SEASON BASED ON ECMWF SEASONAL FORECAST MODEL OUTPUTS FOR SERBIA AND THE SEE REGION (Hindcast period 1993-2016)

Entire Serbia is likely to experience above-normal summer temperature with below-normal summer precipitations sums. Consequently, the whole Serbia will observe a warmer and drier summer compared to the average.



In almost the entire SEECOF region, summer temperature is likely to be above-normal, with the probability increasing from the eastern and southeastern part of the region as well as from Pannonia Plain and Central Balkan Peninsula toward other parts of the SEECOF region, while there is no predictive signal along the eastern slopes of the Carpathian Alps.

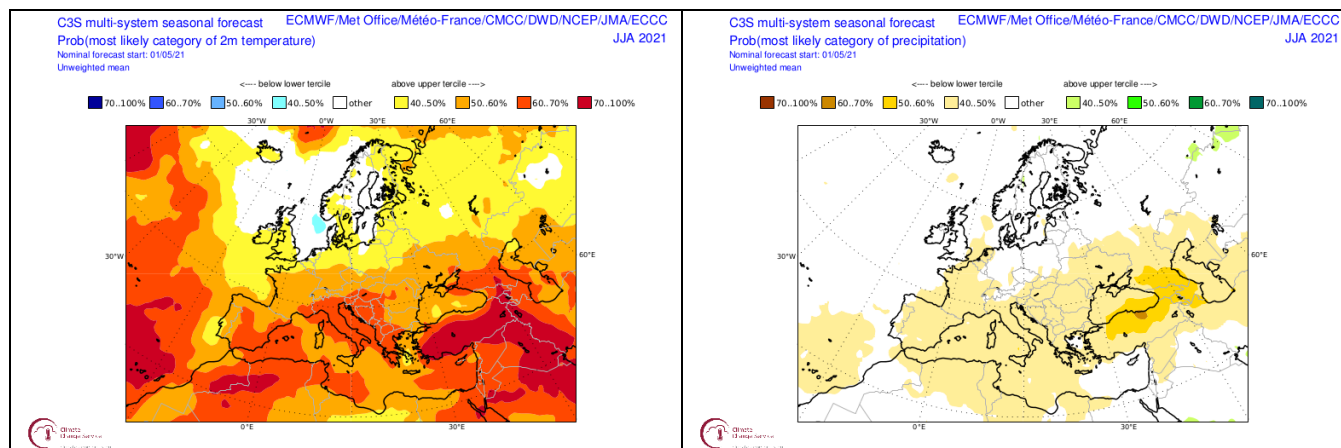
In most of the SEECOF region, summer precipitation totals are likely to be below-normal with probability decreasing from Pannonia Plain, southern coasts of the Black and western coasts of the Caspian Sea toward other parts of the region. Contrastively, along the coasts of the Israel and Lebanon summer precipitation sums are likely to be above-normal, while in Central and Eastern Mediterranean



as well as southern coasts of Turkey there are equal probabilities for below-, near- or above- normal conditions.

CLIMATE OUTLOOK FOR THE 2021 SUMMER SEASON BASED ON COPERNICUS SEASONAL FORECAST MODEL OUTPUTS FOR SERBIA AND THE SEE REGION (Hindcast period 1993-2016)

Summer temperature in Serbia is likely to be above-normal whereas summer precipitation sums are expected to be below-normal. Consequently, the whole Serbia will observe a warmer and drier summer compared to the average.

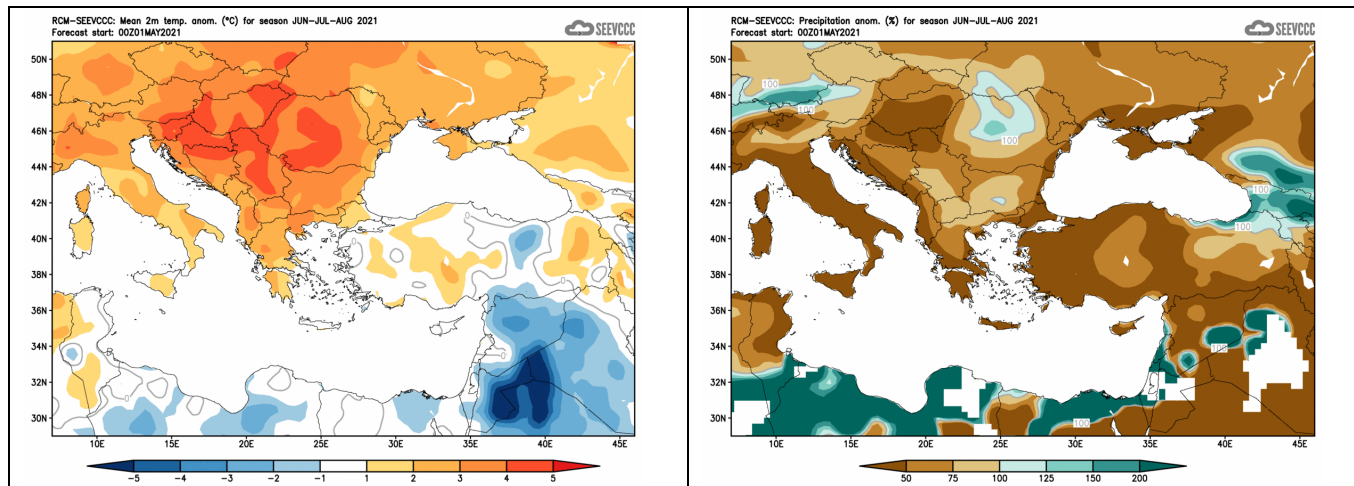


In the whole SEECOF region, summer temperature is likely to be above-normal, with the probability increasing from the Ukraine and eastern parts of Balkan Peninsula toward other parts of the region. In most of the SEECOF region, summer precipitation totals are likely to be below-normal with probability decreasing from the southern and southeastern coasts of the Black and South Caucasus toward other parts of the SEECOF region.



CLIMATE OUTLOOK FOR THE 2021 SUMMER SEASON BASED ON RCM-SEEVCCC SEASONAL FORECAST MODEL OUTPUTS FOR SERBIA AND THE SEE REGION

In summer 2021, positive temperature anomalies are expected in entire Serbia. In most of the country, summer precipitation sums will be below-normal with the exception of mountainous region in southwestern and central part of Serbia with near-normal precipitation totals.



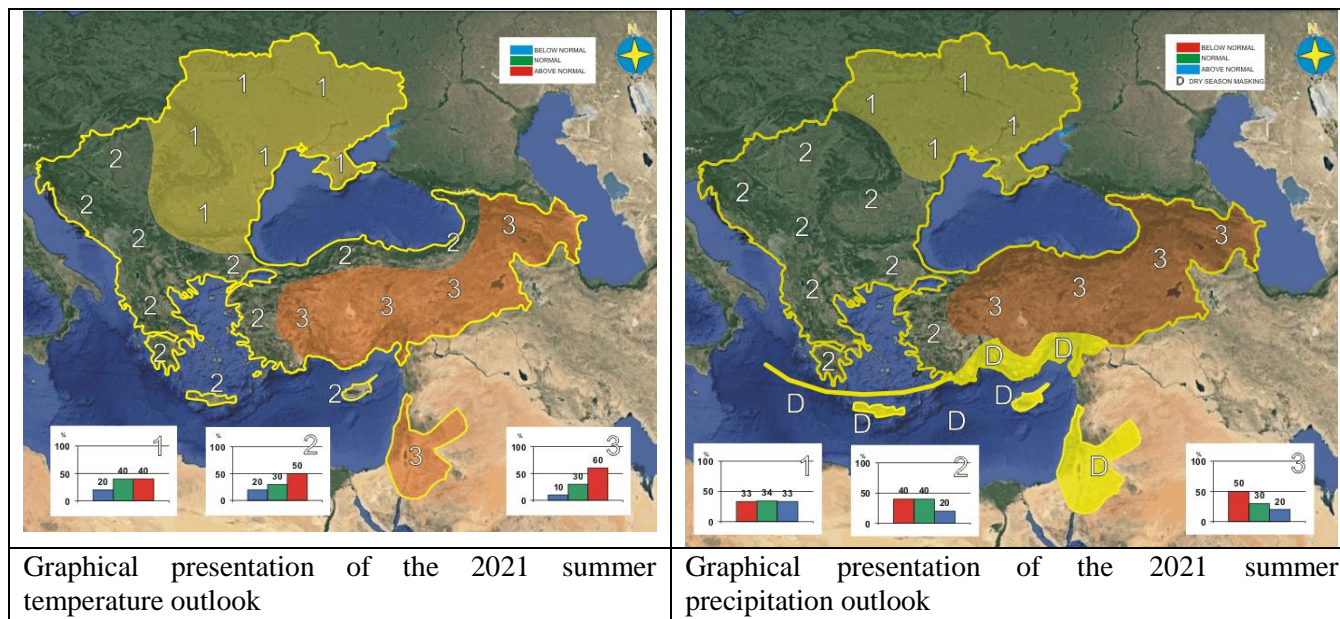
In most of the SEECOF region summer temperature is likely to be above-normal, while normal conditions are expected in the most of Turkey, mountainous region of the South Caucasus region, Eastern and Central Mediterranean with belonging coasts and Israel. Contrastively, below-normal summer temperature is predicted for Jordan and some parts of the mountainous region of the northeast Turkey.

Summer precipitation is likely to be below-normal in most of the SEECOF region, while in the Carpathian and mountainous region of the Central Balkans, as well as in eastern Turkey it will be within normal values. Convective activity may affect above normal summer precipitation in the South Caucasus region, eastern and southeastern coasts of the Black Sea, mountainous region of the Lebanon, Israel and Jordan.



SUGGESTED NHMS SERBIA - CLIMATE OUTLOOK FOR THE 2021 SUMMER SEASON FOR SERBIA AND THE SEE REGION

Summer temperature in Serbia is likely to be above-normal with summer precipitation sums below or near-normal values. Consequently, the whole Serbia will experience a warmer and somewhat drier conditions compared to the average.



In almost all SEECOF region (Zones 2 and 3 in Figure 1), summer temperature is likely to be above-normal with the probability increasing from the northwestern to the southeastern and eastern parts of the region apart from Ukraine and eastern parts of Balkan Peninsula (Zone 1 in Figure 1) with near- or above-normal summer temperature conditions.

Uncertainties in regional predictions are higher for precipitation than for temperature. The uncertainty is high for Ukraine and eastern slopes of Carpathian region where probabilities for below-, near- or above- average conditions are approximately equal (Zone 1 in Figure 2). Below-normal or near-normal summer precipitation sums are predicted for the Balkan Peninsula and western Turkey (Zone 2 in Figure 2), while South Caucasus region and continental parts of Turkey are likely to experience a precipitation deficit (Zone 3 in Figure 2).

It should be noted that certain parts of the country, particularly mountain regions might receive near- or above- normal summer precipitation totals due to the episodes of enhanced convection accompanied by heavy precipitation. Due to dry season masking, it is not possible to forecast summer precipitation totals along the eastern coasts of Eastern Mediterranean, Crete, Israel and Jordan.