



CLIMATE OUTLOOK FOR THE WINTER OF 2023/2024 FOR SERBIA AND THE SEECOF REGION

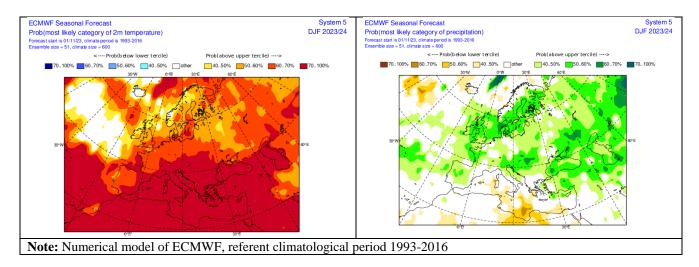
November 16th 2023

INTRODUCTION

NHMS of Serbia regularly prepares climate outlooks for our country on the basis of the ECMWF seasonal forecast model outputs **as well as on the basis of the SEEVCCC regional climate model outputs.** In this paper we will extend the scope of our climate outlook and provide a winter outlook for both Serbia and the entire SEECOF region.

CLIMATE OUTLOOK FOR THE WINTER OF 2023-2024 BASED ON THE ECMWF SEASONAL FORECAST MODEL OUTPUTS FOR SERBIA AND THE SEE REGION

Winter temperature, as well as winter precipitation sums in Serbia are likely to be above-normal. Consequently, winter in Serbia is anticipated to be milder and wetter relative to the 1981-2010 base period.



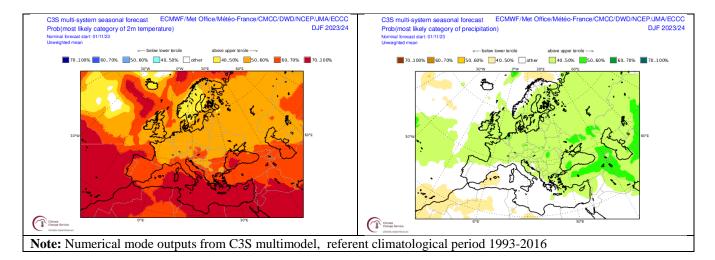
In the entire SEECOF region, winter temperatures are likely to be above-normal with probability increasing from north-eastern toward southern and southwestern areas of the SEECOF region. However, in most of the SEECOF region, winter precipitation sums are likely to be above-normal, while in the continental parts of Ukraine, southern Balkans Israel, Jordan, Syria, along the coasts of the Aegean, Ionian and Eastern Mediterranean Sea with belonging hinterland there is no predictive signal for winter precipitation.





CLIMATE OUTLOOK FOR THE WINTER OF 2023/2024 BASED ON C3S MULTIMODEL SYSTEM SEASONAL FORECAST OUTPUTS FOR SERBIA AND THE SEE REGION

Serbia is expected to observe above-normal winter temperatures and above-normal winter precipitation sums. Consequently, in a whole Serbia, winter is anticipated to be milder and wetter relative to the 1993-2016 base period.



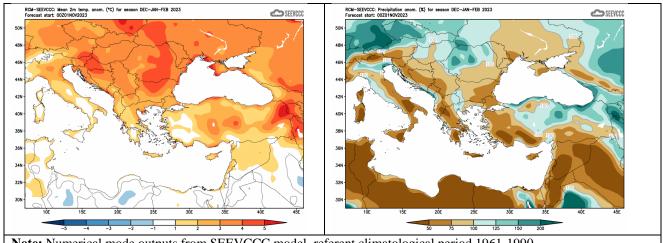
In the whole SEECOF region, winter temperatures are likely to be above-normal, with probabilities increasing from the northern, northeastern-eastern toward southern parts of the region. In most of the SEECOF region, winter precipitation totals are likely to be above-normal, whilst in Jordan and continental parts of Israel there is no predictive signal for winter precipitation totals.





CLIMATE OUTLOOK FOR THE WINTER OF 2023-2024 BASED ON RCM-SEEVCCC SEASONAL FORECAST MODEL OUTPUTS FOR SERBIA AND THE SEE REGION

During winter 2022/2023, positive temperature anomalies are expected in most of Serbia with nearnormal precipitation sums, while southwestern parts of country are likely to experience positive temperature anomalies with below-normal precipitation sums.



Note: Numerical mode outputs from SEEVCCC model, referent climatological period 1961-1990.

In most of the SEECOF region, winter temperature is likely to be above-normal, with the exception of western parts of the inland of Turkey, Jordan, continental parts of Israel and Lebanon, where near-normal conditions are predicted.

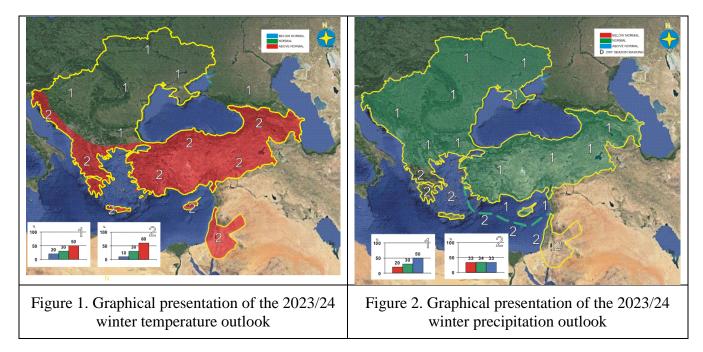
Winter precipitation sums are likely to be near-normal in most of the SEECOF region, while precipitation deficit may be observed in continental parts of Israel, Lebanon, Jordan, southern part of Balkan Peninsula, across the Dinaric Alps, Eastern Mediterranean and northern and western coasts of Black Sea with belonging coasts, western and southern parts of Turkey. Conversely, eastern coasts of the Black Sea as well as some parts of the Carpathian and Caucasus mountain regions may receive more winter precipitation.





SUGGESTED NHMS SERBIA CLIMATE OUTLOOK FOR THE WINTER OF 2023-2024 FOR SERBIA AND THE SEE REGION

Entire Serbia is predicted to experience above- or near-normal winter temperatures relative to the 1981-2010 base period, while there is no predictive signal for winter precipitation totals.



Winter temperature is likely to be near or above-normal in most of the SEECOF region (zone 1 in Figure 1) and above-normal in Jordan, Israel, southern parts of Turkey, along the coasts of the Ionian, Aegean, Central and Eastern Mediterranean Seas with belonging hinterland (zone 2 in Figure 1).

In the most of the SEECOF region (zone 1 in Figure 2) winter precipitation totals are likely to be abovenormal, while in the south of Greece, Turkey, Israel, Jordan, along the coasts of Ionian, southern coasts of the Aegean, southern and eastern coasts of the Black Sea (zone 2 in Figure 2) the uncertainty is high: probabilities for below, near- or above-average conditions are approximately equal.