



**Twenty-first Session of
SOUTHEASTERN EUROPE CLIMATE OUTLOOK FORUM (SEECOF-21)
April-May, 2019**

**SEASONAL OUTLOOK FOR SUMMER SEASON 2019 FOR THE SOUTH
EASTERN EUROPE AND CAUCASUS REGION (SEE&C)**

Climate experts from WMO RA VI RCC Network Nodes on long-range forecasting (Meteo France, France and Roshydromet, Russia) and WMO RA VI RCC Network Node on climate monitoring (Deutscher Wetterdienst, Germany), UK Met-Office, Global Producing Centre ECMWF, International Research Institute for Climate and Society (IRI, USA), National Centers for Environmental Prediction (NCEP, USA), WMO RA VI RCC South East Europe Virtual Climate Change Centre (SEEVCCC, Serbia) and National Hydrometeorological Services of SEECOF region provided their valuable contribution to the successful implementation of SEECOF-21 by developing the relevant documents and providing scientific guidance and recommendations.

The SEECOF-21 comprised of the following Steps:

- Step 1: qualitative verification of the SEECOF-20 climate outlook for 2018-2019 Winter;
- Step 2: assessment of the current state of the climate including large-scale climate patterns worldwide and assessments of its likely evolution in the course of the next months;
- Step 3: building the consensus forecast for 2019 summer season.

All relevant documentation is posted and updated in SEEVCCC web site:
<http://www.seevccc.rs>

SEECOF-21 CLIMATE OUTLOOK FOR THE 2019 SUMMER SEASON

Similarly, to MedCOF-12 seasonal climate outlook, SEECOF-21 prediction is based on the output from dynamical models, including, inter alia, the operational products of the SEEVCCC centre, statistical models and teleconnections of large-scale climate features.

Observed sea surface temperatures in the east-central tropical Pacific exhibited weak El Niño conditions during February-April 2019. The sea surface temperatures in the Niño 3.4 and Niño 3 regions, both of which are often used to characterize El Niño/Southern Oscillation (ENSO) conditions, are predicted to be approximately 0.7 to 0.9 °C above average during the June-August 2019 season, and hence, remain at weak El Niño levels. This tendency towards weak El Niño conditions is consistently predicted by a majority of dynamical models. However, the spread between models is rather high, with a considerable number of simulations overpassing the +1°C anomaly: hence, the ENSO situation must be monitored in the months to come.

No extra-tropical connections are visible, and consequently the signal seems to be trapped in low latitudes. Differences between models are noticeable for the North Atlantic and Europe circulation, however a blocking pattern and relative low geopotential over Central Atlantic are foreseen by most of them.

The maps show the probabilistic consensus forecast for the tercile categories of anomalies for seasonal mean temperature and precipitation, relative to the 1981-2010 period. Due to the climate warming trend, anomalies are affected by the selected reference period.

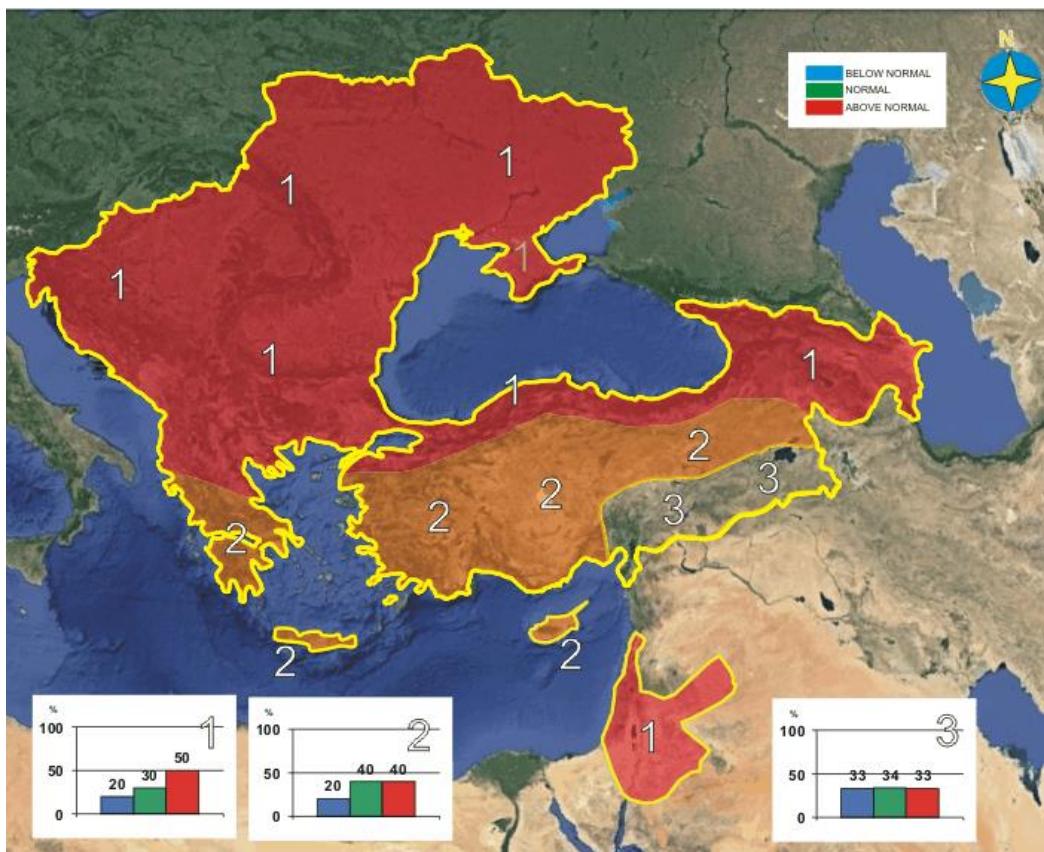


Figure 1. Graphical presentation of the 2019 summer temperature outlook

Probability for the above-average summer temperature is decreasing across the SEECOF region spreading from northern-northeastern toward southeastern parts. The most of the SEECOF region is likely to experience above-average summer temperature (zone 1 in Figure 1), while central and southern Greece, Ionian Sea, Aegean Sea, Eastern Mediterranean, as well as western, southern and central parts of Turkey is likely to have near- or above normal conditions. On the other hand, in southeastern part of Turkey (zone 3 in Figure 1) there are approximately equal probabilities for below-, near- or above normal-averages of the summer temperature. The generalized relatively high warm signal is probably partly due to the background climatic warming trend.

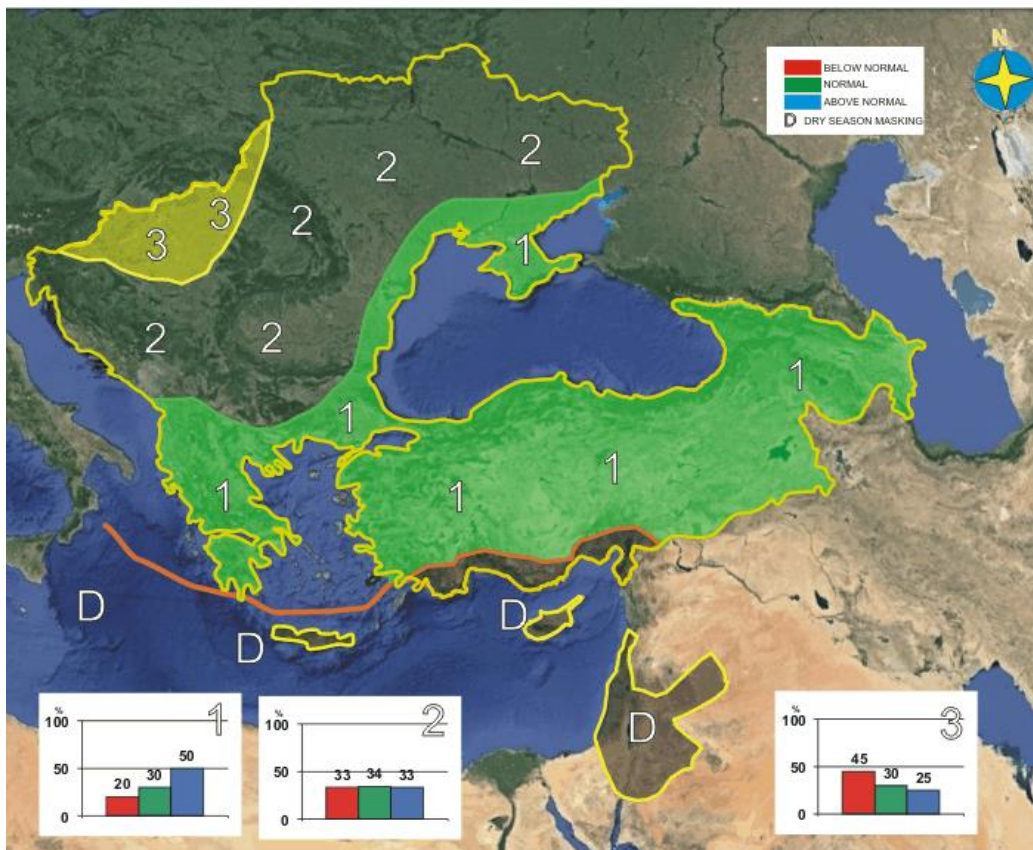


Figure 2. Graphical presentation of the 2019 summer precipitation outlook

Uncertainties in regional predictions are higher for precipitation than for temperature.

The coasts of the Aegean and Black Sea, as well as the Southern Balkans, South Caucasus region and most of Turkey will receive above normal summer precipitation sums (zone 1 on Figure 2).

On the other hand, Pannonia Plain and the north-western slopes of the Carpathian region (zone 3 on Figure 2) are likely to experience a precipitation deficit. In most of the SEECOF region (zone 2 in Figure 2), there are approximately equal probabilities for below-, near- or above normal-averages.

It should be noted that certain parts of the country, particularly mountain regions may observe near- or above- normal summer precipitation 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 for the Eastern Mediterranean with belonging coasts and hinterland, Crete as well as Israel and Jordan.

Reference:

The maps show the probabilistic consensus forecast for tercile categories of anomalies of seasonal-mean temperature and precipitation, relative to the 1981-2010 period.

Any further advice on the forecast signals, shorter-range updates and warnings will be available throughout the summer from the National Meteorological Services, along with the details on the methodology and skill of long-range predictions.

** The graphical representation of climate outlook in this statement is for guidance purposes only, and does not imply any opinion whatsoever concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.*

APPENDIX A: Contributors to SEECOF-21

- World Meteorological Organization
- Met Office, United Kingdom
- International Research Institute for Climate and Society, United States of America
- European Center for Medium Range Weather Forecast
- Météo France, Republic of France
- Deutscher Wetterdienst, Federal Republic of Germany
- National Center for Environmental Prediction, United States of America
- Federal Service for Hydrometeorology and Environmental Monitoring, Russian Federation
- South East European Virtual Climate Change Center hosted by Republic Hydrometeorological Service of Serbia, Republic of Serbia
- Institute of Geosciences, Energy, Water and Environment, Albania
- Armenian State Hydrometeorological and Monitoring Service, Armenia
- National Institute of Meteorology and Hydrology, Republic of Bulgaria
- Meteorological and Hydrological Service, Republic of Croatia
- Meteorological Service, Republic of Cyprus
- Hellenic National Meteorological Service, Greece
- The National Environmental Agency of Georgia, Georgia
- Hungarian Meteorological Service, Hungary
- Israel Meteorological Service, State of Israel
- Republic Hydrometeorological Institute, Former Yugoslav Republic of Macedonia
- State Hydrometeorological Service, Republic of Moldova
- Hydrometeorological Institute of Montenegro, Montenegro
- National Meteorological Administration, Romania
- Federal Hydrometeorological Service of the Federation of Bosnia and Herzegovina, Federation of Bosnia and Herzegovina, Bosnia and Herzegovina
- Republic Hydrometeorological Service of the Republic of Srpska, Republic of Srpska, Bosnia and Herzegovina
- Republic Hydrometeorological Service of Serbia, Republic of Serbia
- Turkish State Meteorological Service, Republic of Turkey
- Ukrainian Hydrometeorological Center, Ukraine