



## SOUTH-EAST EUROPEAN CLIMATE OUTLOOK FORUM (SEECOF-18) (22-23) November, 2017

### SEASONAL OUTLOOK FOR THE WINTER SEASON 2017/2018 FOR THE SOUTH EASTERN EUROPE AND CAUCASUS REGION (SEE&C)

Climate experts from WMO RA VI RCC Network Node on long-range forecasting (Meteo France, France and Roshydromet, Russia) and WMO RA VI RCC Network Node on climate monitoring (Deutscher Wetterdienst, Germany), Global Producing Centre ECMWF, International Research Institute for Climate and Society (IRI, USA), National Centers for Environmental Prediction (NCEP, USA), South East European Virtual Climate Change Centre (SEEVCCC, Serbia), and National Hydrometeorological Services of the SEECOF region provided their valuable contribution to the successful implementation of SEECOF-18 by developing relevant documents and providing their scientific guidance and recommendations.

SEECOF-18 was composed of the following Steps:

- Step 1: qualitative verification of the SEECOF-17 climate outlook for 2017 summer season;
- Step 2: assessment of the current state of the climate, including large-scale climate patterns worldwide, and assessments of likely climate evolution in the course of the following months;
- Step 3: building the consensus forecast for 2017/2018 winter season.

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

### SEECOF-18 CLIMATE OUTLOOK FOR 2017/18 WINTER SEASON

This prediction is based on output from dynamical models, statistical models and known teleconnections of large-scale climate features prepared by MedCOF-7 which also applies and has been adapted to the South East European region.

Weak La Niña conditions are present in the tropical Pacific both in SST indices and associated atmosphere variables. The latest model-derived predictions of ENSO indicate weak La Niña as the most likely scenario for the next winter. The weak La Niña condition is favouring a negative phase of the Pacific North America (PNA) pattern which in turn could increase the probability for the development positive phases of North Atlantic Oscillation (NAO) and possibly of Eastern Atlantic (EA) patterns. [Other known drivers such as easterly Quasi Biennial Oscillation, reduced Arctic sea ice concentration, larger snow cover extent in Eurasia might have some influences over the SEECOF region but the assessment of the present conditions shows they are relatively reduced.]

Above normal thermal anomalies are likely to dominate the whole SEECOF region in the next winter. Chances for warmer than normal conditions are over Balkan Peninsula, Eastern Mediterranean coast and hinterland regions (zone 2 in Figure 1). The probabilities for above-normal temperature are slightly attenuated in the North-Eastern part of the SEECOF domain (zone 1 in Figure 1).

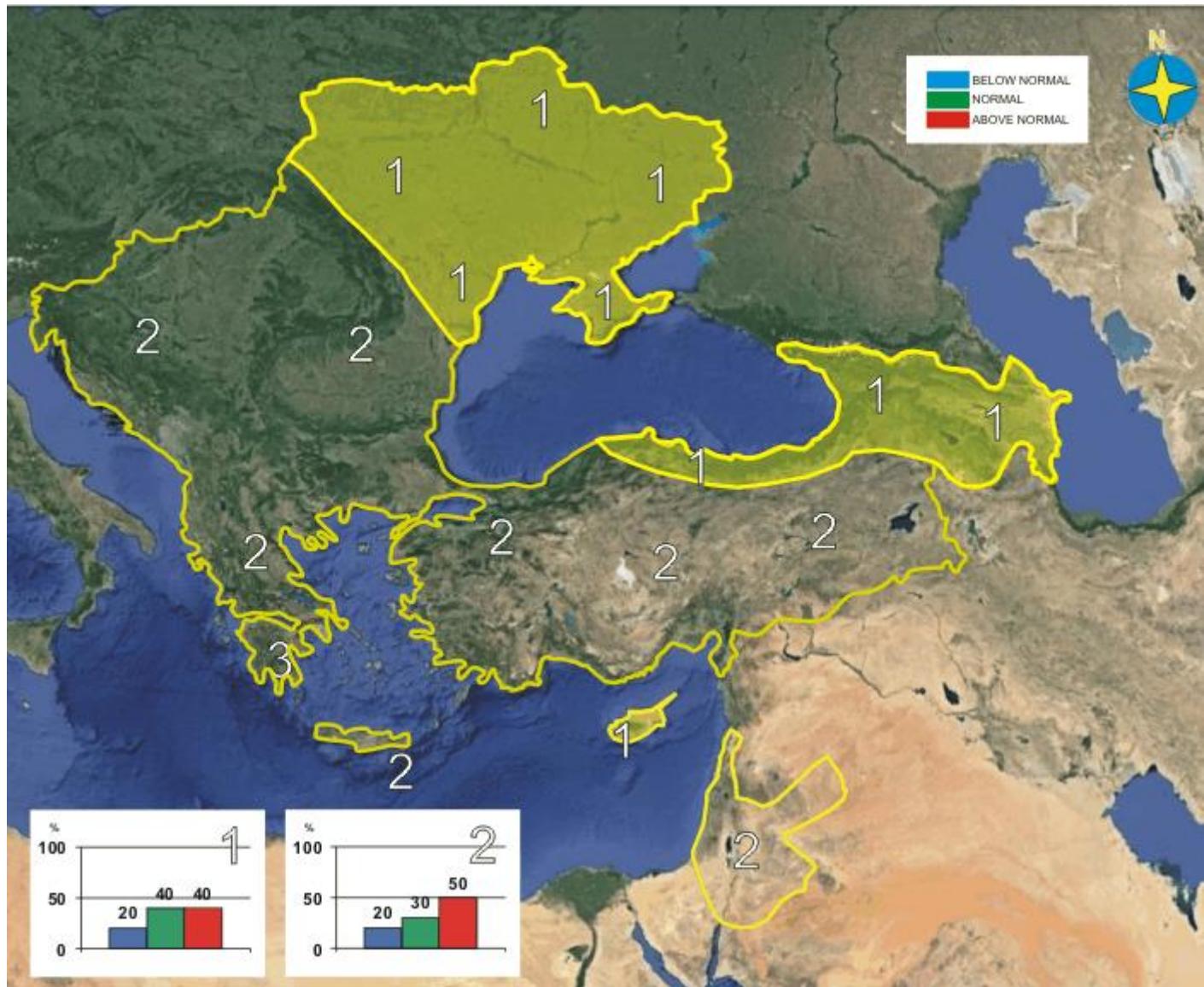


Figure 1. Graphical presentation of the 2017/18 winter temperature outlook

Precipitation uncertainties are generally larger than for temperature. The main feature for precipitation is a North/South gradient favouring wetter-than-normal conditions over northernmost part of SEECOF region (zone 1 in Figure 2). The drier-than-normal conditions prevail on Southernmost of the Balkan Peninsula, along the coasts of the Eastern Mediterranean, Ionian, as well as the coasts of central and Southern Adriatic Sea (zone 3 in Figure 2). In the rest part of the SEECOF domain there is no clear signal for precipitation (zone 2 in Figure 2).

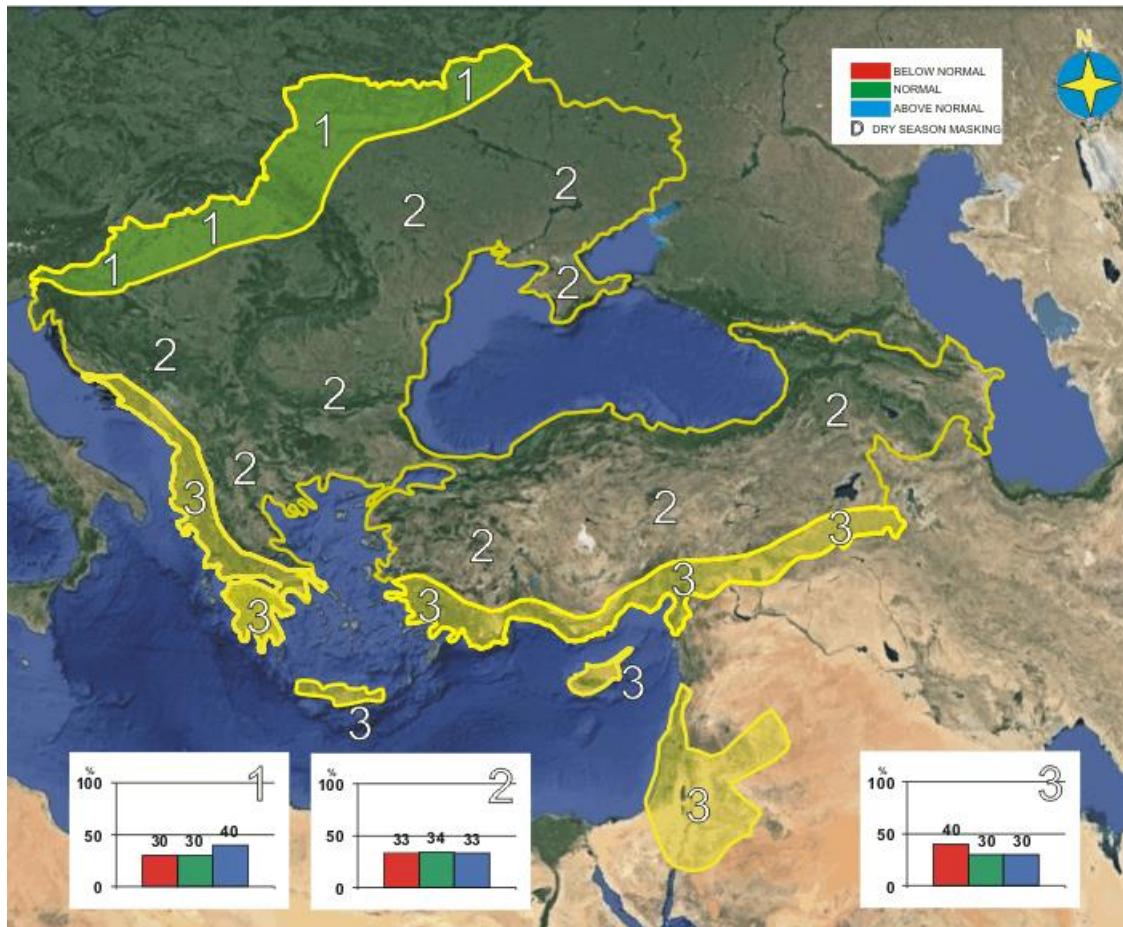


Figure 2. Graphical presentation of the 2017/18 winter precipitation outlook

Sub-seasonal developments may occur so regular updates to the forecast are strongly recommended. In addition, local factors (for example SSTs in the smaller basins of the region) may shape local variability at a regional level.

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

Seasonal averages cannot provide details about short spells of weather during the season. It is possible than even in an average season spells of severe wintry weather (for example: winter storms, very cold episodes, very wet spells) occur and lead to significant local socio-economic impacts.

Note that it is necessary to express seasonal forecasts in terms of probability due to inherent uncertainty. Any further advice on the forecast signals, shorter-range updates and warnings will be available throughout the winter from the National Meteorological Services, along with details on the methodology and skill of long-range predictions.



\* The graphical representation of climate outlook in this statement is only for guidance purposes, 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-18

- World Meteorological Organization
- Met Office, United Kingdom
- Meteo France, Republic of France
- Roshydromet, Russia
- European Center for Medium Range Weather Forecasts
- Deutscher Wetterdienst, Federal Republic of Germany
- Centro-EuroMediterraneo sui Cambiamenti Climatici (CMCC), Italy
- International Research Institute for Climate and Society, United States of America
- National Center for Environmental Prediction, United States of America
- South East European Virtual Climate Change Center hosted by Republic Hydrometeorological Service of Serbia, Republic of Serbia
- Armenian State Hydrometeorological and Monitoring Service, the Republic of 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
- National Environmental Agency of Georgia, Georgia
- Institute of Geosciences, Energy, Water and Environment, Albania
- Israel Meteorological Service, State of Israel
- Jordan Meteorological Department, Hashemite Kingdom of Jordan
- Republic Hydrometeorological Institute, Former Yugoslav Republic of Macedonia
- 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
- Slovenian Environment Agency, Republic of Slovenia
- Turkish State Meteorological Service, Republic of Turkey
- Ukrainian Hydrometeorological Center, Ukraine