





## Third Session of SOUTHEASTERN EUROPE CLIMATE OUTLOOK FORUM

## SEECOF-3 ON-LINE MEETING April-May 2010

## FINAL ASSESSMENT OF THE CURRENT STATE OF THE CLIMATE INCLUDING LARGE SCALE CLIMATE PATTERNS WORLDWIDE AND ITS LIKELY EVOLUTION IN THE COURSE OF THE NEXT MONTHS

Assessment of the current state of the climate (April-May 2010) including large scale climate patterns worldwide and its likely evolution in the course of the next months are based on the following documents:

- Meteo-France, WMO RA VI RCC node on Long Range Forecasting, (archived on http://www.wmo.int/pages/prog/dra/eur/documents/SEECOF-3/SEEC33/SEEC3
- ROSHYDROMET, WMO RA VI RCC node on Long Range Forecasting, (archived on http://www.wmo.int/pages/prog/dra/eur/documents/SEECOF-3/Current-weather-and-climateconditions-second%20draft.pdf
  http://www.seevccc.rs/SEECOF-III/Step%202/Current-weather-and-climate-conditions-DKyktev-Second-draft.pdf)
- Climate prediction center/NCEP/NWS El Niño/Southern Oscillation (ENSO) (http://www.cpc.ncep.noaa.gov/products/analysis\_monitoring/enso\_advisory/)

Main features considered for preparing of the climate outlook for summer season 2010 for the South East Europe region are the global sea surface temperature conditions, particularly over the Equatorial Pacific, North Atlantic, Indian Ocean and some parts of the Mediterranean Sea, which are believed to influence the summer condition. It has been noted that El Niño event continues to weaken during April 2010 as positive surface temperature (SST) anomalies decreased across the Equatorial Pacific Ocean. Nearly all models predict decreasing SST anomalies in the Niño-3.4 region through the Northern Hemisphere summer 2010. Most models predict a transition to ENSO-neutral conditions during April-June 2010, followed by ENSO-neutral conditions through the end of the year. However, by July-September 2010, the envelope of model solutions includes a significant number (nearly a third) indicating the onset of La Niña conditions. Even though ENSO-neutral conditions are most likely during the second half of the year, the general tendency of the models in recent months has been toward increasingly negative SST anomalies in the Niño-3.4 region. These forecasts, in addition

to various oceanic and atmospheric indicators, show a growing possibility of La Niña developing during the second half of 2010.

High SST anomalies are slightly changed in the Tropical North Atlantic. Some models show consistent signal that SSTs in Tropical Atlantic, both in the North and in the South, are likely to be warmer than normal during the summer. However, some other models indicate development of cooling pattern in the Eastern part of South Atlantic Basin which extends to the Guinean Gulf. As a result some teleconnection could be expected in the Mediterranean Basin. The main change between MJJ and JJA forecasts is over the whole North Atlantic basin (in mid-latitudes), where models develop a "Horse shoes" pattern. This new development is important because of its relationship with Blocking regimes which could modulate slightly warmer than normal conditions in SEE. If both regimes lead to increase of temperature over the European-Atlantic region, they could have a different impact over the South East Europe region. Over the Indian Ocean SSTs are warmer than normal and they will likely remain warmer than normal with good consistency in western part of the Indian Ocean. The conditions over the Mediterranean Sea are likely to be slightly warmer than normal.

The persistency of primary atmospheric circulation patterns characterized by teleconnection indices is quite low and they can not be extrapolated into the summer reliably enough. Furthermore, the whole set of these modes explains about a half of the atmospheric variance in the winter and counts much less in summer atmospheric variance.