



## **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/SEECOF-3\\_fromJPC\\_JJA.pdf](http://www.wmo.int/pages/prog/dra/eur/documents/SEECOF-3/SEECOF-3_fromJPC_JJA.pdf)  
[http://www.seevccc.rs/SEECOF-III/Step%203/May\\_2010\\_SEECOF\\_JJA%20updated.pdf](http://www.seevccc.rs/SEECOF-III/Step%203/May_2010_SEECOF_JJA%20updated.pdf))
- 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-climate-conditions-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/](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. Models show very 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. 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 is roughly compensated by decreasing in the occurrence of Atlantic Ridge regimes. 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 continue to be warmer than normal with good consistency in western part of the Indian Ocean. The conditions over the Mediterranean Sea, especially in the region of the Adriatic Sea and western part of the Black Sea, are likely to be somewhat warmer than normal conditions.

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 these modes have substantially less influence on the atmospheric variance in the summer season 2010.