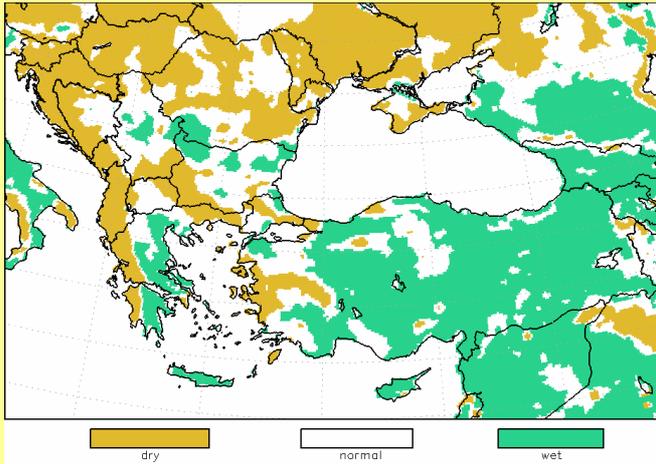


DROUGHT MONITORING BULLETIN

22th April 2011

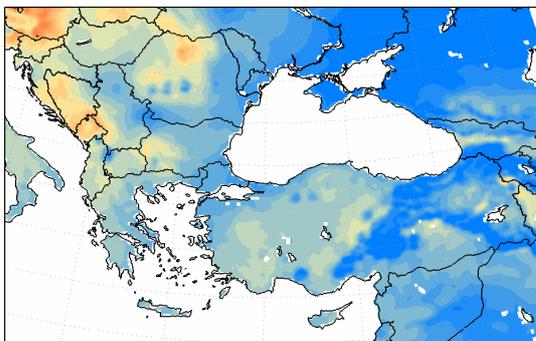
Hot Spot



Start of this year's growing season is characterized by low water supply in most parts of the Balkan Peninsula. As shown on the left picture, model simulation for the time period from 10 February – 20 April indicate dry conditions over almost entire Balkan, belonging to the seven most dry years in the time period 1989 – 2010. Much better is the situation over South-Eastern part of the DMC region. Areas colored green are among the seven wettest in the time period 1989 – 2010.

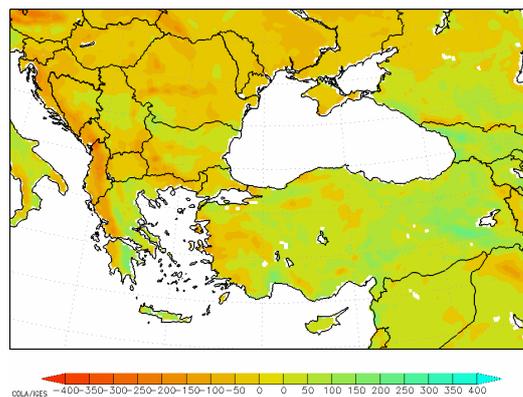
Average temperature was in the past 70 days below average (1989 – 2010) in most areas of the DMC.

Air temperatures and surface water balance

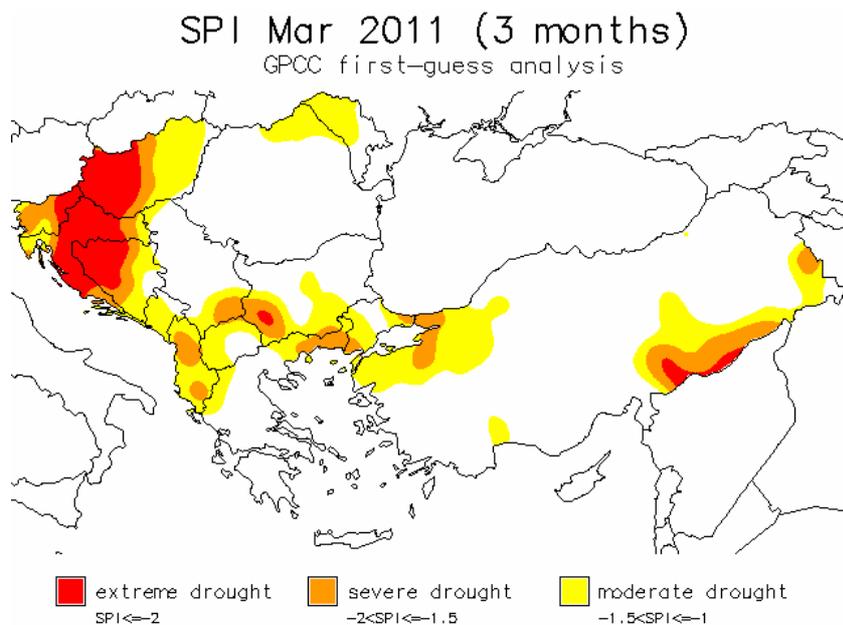


The comparison of air temperature for time period 10 February – 20 April _ to long term average (1989-2010) is presented in left figure. Temperatures exceed 22-year average over most parts of the Balkan and were close to average in Greece and Western parts of Turkey. North-Eastern areas of Turkey were cooler.

Surface water balance (difference between precipitation and evaporation) shows moderate negative anomalies for period 10 February – 20 April with respect to long term average (see left figure). Over some parts of the western Balkan negative anomalies exceeded 200mm. In other parts of the SE Europe region water balance remained close to long term average.



SPI Index

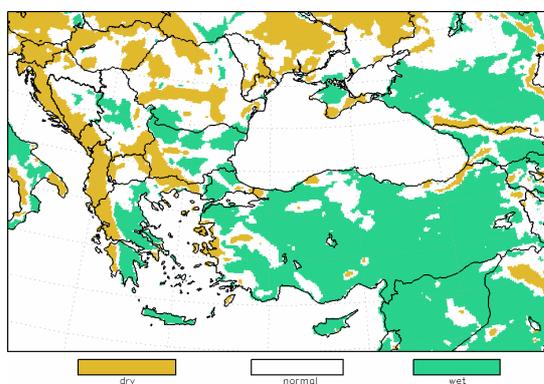


SPI index shows dry conditions on 3-month scale in W Hungary, E Slovenia and Croatia. Winter in this area was exceptionally dry, situation has improved only partially during March. It is expected that SPI values for SW part of the Carpathian basin will remain negative during April.

Impact reports

There are no drought impact reports originating from precipitation deficiency for the time being.

Outlook



Situation is not expected to change significantly during the next ten days. Western part of the region is expected to become colder and slightly wetter. Anomaly of the surface water balance will remain negative in the Western areas of Balkan and positive elsewhere. Temperatures are expected to be slightly below long term averages.

Methodology

Drought monitoring bulletin is based on numerical weather prediction (NWP) model simulations over SE Europe and SPI index calculations. Precipitation data is provided by Global Precipitation data Centre (GPCC; gpcc.dwd.de). NWP simulations are performed with Non-hydrostatical Meso-scale Model (NMM, see: <http://www.dtcenter.org/wrf-nmm/users/>). Historical DMCSEE model climatology was computed with NMM model for time period between 1st January 1989 and 31st December 2009. European Center for Medium Weather Forecast (ECMWF) ERA-Interim data set (see: <http://www.ecmwf.int/research/era/do/get/era-interim>) was used as input data. Long term averages (1989 - 2009), used for comparison of current weather conditions, are obtained from this data set. For the current conditions, operational (truncated) ECMWF data set is used as input for simulations. Comparison of current values to long term averages provides signal on potential ongoing drought severity.