SOUTH EAST EUROPE
Transnational Cooperation Programme

DMCSEE
Drought Management Centre for Southeastern Europe
e-newsletter

Programme co-funded by the EUROPEAN UNION

# Drought Management Centre for South East Europe

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2. 6th Consortium Meeting in Novisad
3. National Seminars
4. Drought Monitoring Bulletin
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Jointly for our common future

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# Introduction

At the last newsletter we conclude most of the actions taken throught the last period, including the final meeting,
The importance of an activated DMCSEE web site was mentioned in the last meeting, as many important organizations want to be informed.
The end of the project DMCSEE, organized by the Lead partner in a great success give the opportunity of great cooperation in the near future, as the conclusions made by partners, indicate awareness and special events and measures to be taken from all the countries in the world as the climate changes occures.

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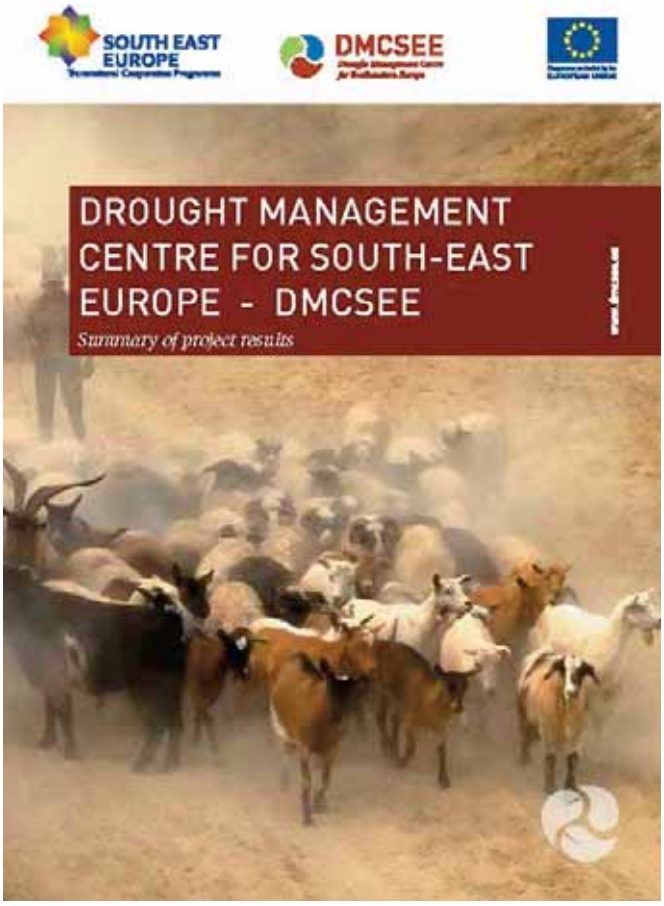


*DMCSEE project final publications: version in English language has been printed and distributed. Versions in all national languages are being prepared*

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# 6th Consortium Meeting in Novisad

In Novisad on 3rd – 4rd November 2011, it was held a succesful Consortium Meeting with all partners participating. That meeting was one of the last two ones that conclude the progress of the project.

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# National Seminars

## 1. National Seminar

Before the meeting, extensive preparation steps were undertaken, including:

### *1. National Seminar Agricaltural University of Athens*

a. Consultations with authorities in order to inform them and to arrange the time and the place of the meeting,
b. Invitation letters were sent to all parts considered as interested, so as to be sure that they were aware of the meeting.

The meeting was structured with a panel to conduct the appropriate actions and a facilitator. The panel consisted of the AUA team (DMCSEE-Project), namely, C. Karavitis (facilitator), S. Alexandris, V. Fassouli, D. Stamatakos, D. Tsesmelis and N. Skondras.

*Workshop presentation – C. Karavitis (facilitator)*

## Conclusions

During the workshop, several practices and options were proposed. The construction of small dams in the area of Messara Valley, water resources management, wider planning, and political decisions and actions are some of those. The truth is that even the best selected option cannot facilitate the mitigation efforts alone and wider efforts and funds are required so as for such an intense pressure (drought) to be lifted.
One positive issue that occurred is the fact that local authorities and stakeholders are willing to participate in the battle and efforts against drought impacts as long as their profit is not threatened. And in times like the current ones such a reaction is more than understandable and respected.

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# National Seminars

The Hungarian Meteorological Service (OMSZ) organised a national seminar on 07.12.2011. The meeting was held in Budapest as a side

## *2. National Seminar Hungarian Meteorological Service (OMSZ)*

The Hungarian Meteorological Service (OMSZ) organised a national seminar on 07.12.2011. The meeting was held in Budapest as a side event of Annnual Meeting of Directors of Water management Companies. OMSZ took four presentations about the results of DMCSEE:

- Bihari Zita: A DMCSEE projekt (The DMCSEE project)
- Lakatos Mónika, Bihari Zita, Szentimrey Tamás, Kovács Tamás, Móring Andrea, Nagy Andrea, Németh Ákos: Az aszály számszerűsítése: a DMCSEE projektben alkalmazott aszályindexek (drought indices in DMCSEE project)
- Németh Ákos, Móring Andrea: Az aszályérzékenység meghatározása éghajlati és geomorfológiai információk felhasználásával (drought vulnerability)
- Szalai Sándor: Kézikönyv az aszályhoz való sérülékenység becsléséhez és a kockázatelemzéshez (training manual)

About 70 end users participated on the meeting.

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# National Seminars

## 3. National Seminar Georama Greece

On March 14th in Patras, Greece it was held the 2nd National Seminar by Georama. Many participants from decision makers and stakeholders were present, and the importance of that meeting was broadcasting through television stations and newspapers.

*Project manager George Tzovolos presenting the scope of the project.*

*Participants of the meeting*

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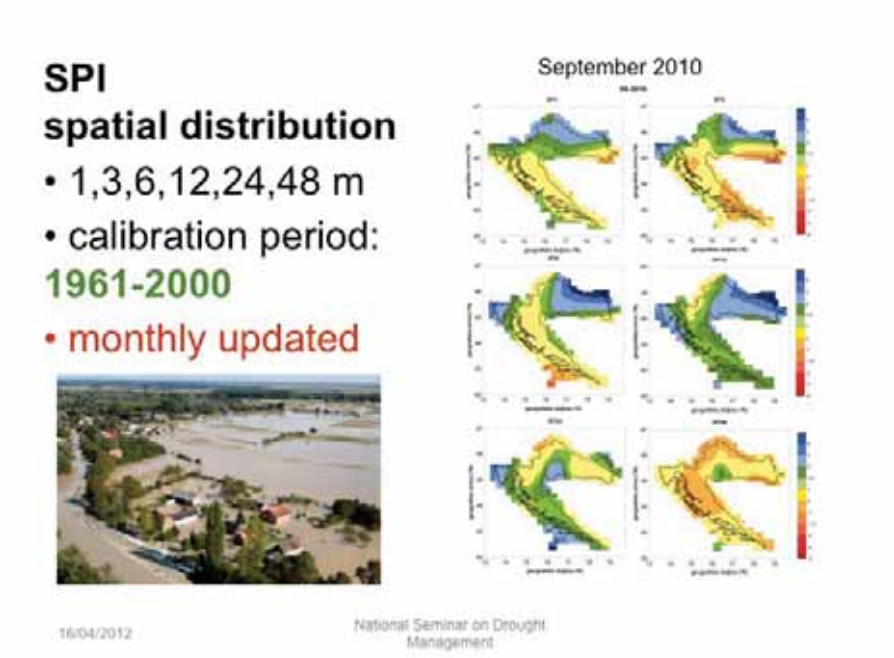
# National Seminars

## 4. National Seminar Drought Monitoring System in DHMZ

In Croatia drought causes highest economic losses (39%) among all hydromet events (DPPŠEN,2009)
In last 2 decades it caused serious damage in agricultural sector (30% crop diminishing)
Climate change (IPCC, 2007)– mean annual precipitation increases in northern Europe and **decreases further south**, more intense and longer droughts
Positive trend in dry spells in CRO (spring) (Cindrić et al.,2010)



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# National Seminars

## *5. National Seminar in Serbia*

The national seminar "Drought monitoring, early warning and vulnerability assessment" was organized in cooperation with RHMSS and UNSFA. It was held in Belgrade, 26-27. April 2012. Nearly 50 experts from various fields (meteorology, agricultural production, irrigation management, university professors and researchers) participated. UNSFA team members presented some of the results achieved during DMCSEE project, mainly they presented result regarding drought impacts, drought mitigation measures, irrigation scheduling models, drought vulnerability assessment based on crop-yield models and assessment based on climatology and geomorphology. Following the presentations, very active discussions were held among the experts.

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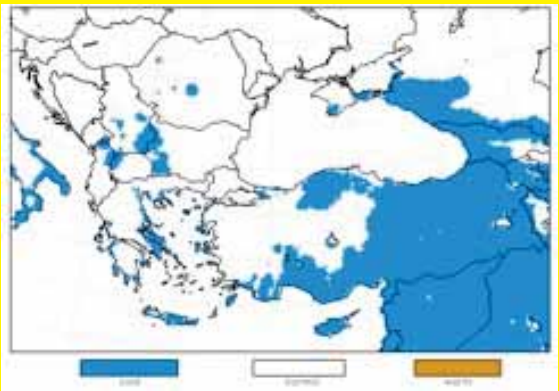
# Drought Monitoring Bulletin

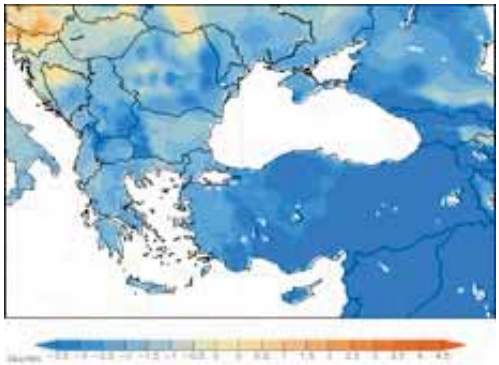
30th April 2012

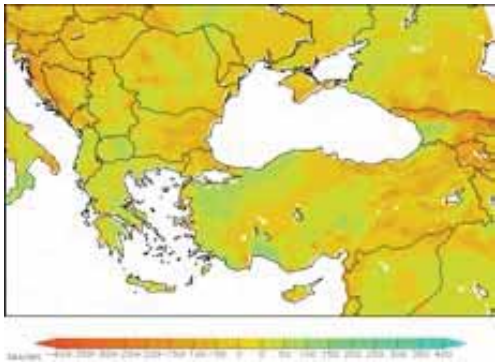
## Hot Spot



Temperatures, recorded in some areas of Balkans during the past 60 days were in the eastern part of the region among the lowest on the record for this time of the season. Blue indicated regions on the picture belong to the coldest 5% in the time period 1979 – 2011.

## Air temperatures and surface water balance

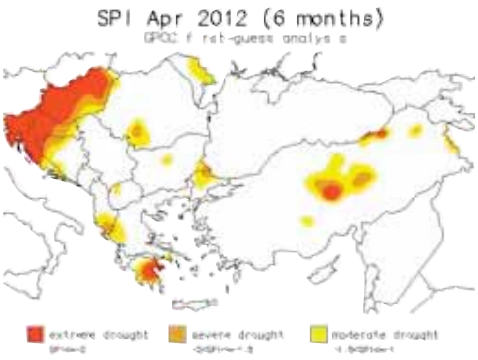




Anomalies of the air temperature for time period 20 February – 20 April 2012 to the long term model average (1979-2011) are presented on the left figure above. Majority of the DMCSEE region was below long term average with the exception of Slovenia and western parts of BiH.

60 days accumulated surface water balance anomaly patterns show good water availability for the start of the vegetation sesion in much of the DMCSEE area, especially in the southeast part of theregion. Slightly worse conditions prevail in the northwestern part of the area and in eastern Bulgaria.

## SPI Index




SPI index with 6-month accumulation period for April 2012 shows severly dry conditions in Slovenia, Hungary and north-west Croatia. In this regions exceptional drought took place in winter, bringing severe impacts (see below). Although situation has improved during April (SPI for 1 month accumulation remained positive in most parts of the region), there is still low negative value predominant in NW part of the region.

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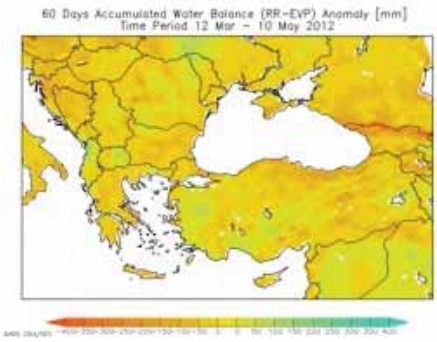
# Drought Monitoring Bulletin

## Impact reports

Lack of precipitation in recent months of the previous year and the early moths of this year caused severe drought which is one of the worst in winter/spring time in many countries of the south-east region.
Countries along the Danube River reported about disrupted waterways. Level of the river was the lowest that has ever been recorded. Cargo shipping was only at 25 % of the usual transport. Drought impact also reflected the troubles in production of electricity. It is reported that actual electricity water accumulation is beyond the level of the average in all countries in the region. Jablanicko Accumulation Lake in Bosnia was in February 2012 totally dry. Croatia reports that actual electricity water accumulation were on the level of the average recorded in July or less than half of full accumulation capacity. Hydro power supplies were low almost in entire region. Montenegro has had to import 50 % more energy and Serbia produced 25 % less electric in 2011 compared to 2010. In Slovenia production of electricity was decreased by 40 % in first three months of this year. In the following months it is very likely that the needs to import more electricity will increase all over the region. Generally drought impacts prediction is the yield reduction by 20 – 30 % of winter crops, especially wheat. Report from Moldova says that rape crop is significantly damaged. High risk of forest fires was reported from Slovenia and Croatia. Some countries had also problems with supplies of drinking water.




## Outlook

Anomalies of the model simulated 60 days accumulated water balance for the time period 12 March – 10 May 2012 show that situation will remain relatively dry. 60 day water balance deficit is highest in north-west part of the region, where it reaches 200 mm. Temperatures will be slightly warmer than long term average.

## 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 1979 and 31st December 2011. 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 for simulations. Long term averages (1979 - 2011), used for comparison of current weather conditions, are obtained from simulated data set. Comparison of current values to long term averages provides signal on potential ongoing drought severity.

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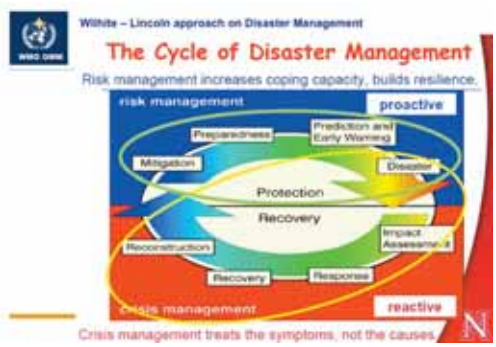
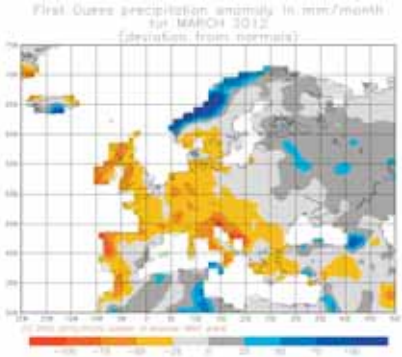
# Final Meeting

Representing the UNCCD secretariat, Jamal Annagylyjova informed participants that drought and water scarcity is one of the thematic priorities of the Convention, and shared that the secretariat is ready to continue its support to the center through providing a political and multi-stakeholder platform to discuss and advocate for drought management issues. She emphasized that the DMCSEE should play a vital role in providing technical expertise for the countries of the regions during the national reporting and alignment of the National Action Programmes to Combat Desertification.



*Part of presentation of Mr Jose Camacho Scientific Officier of Agricultural Meteorology Division*

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