# DISTAS PROTECTION AND SUSTAINABLE USE OF THE DINARIC KARST AQUIFER SYSTEM

## issue 2

## June 2012



**DIKTAS** is a project initiated by the aquifersharing states and supported by Global **Environment Facility** (GEF) to improve understanding of transboundary groundwater resources of the Dinaric region and to facilitate their equitable and sustainable utilisation, including the protection of unique karst groundwater dependent ecosystems.

The second issue of the DIKTAS Newsletter is giving an update on the project activities carried out in the first half of 2012, a very active year for the project for all our project four components: 1) Improving the understanding of the Dinaric Karst Aquifer System and its environmental status; 2) Establishing cooperation mechanisms among the participating countries 3) Facilitating the harmonization of policies and priority reforms; 4) Communication, dissemination and replication of the project activities. The DIKTAS Project Team consists of about twenty national and international experts, split in Working Groups (WG). The activities and progress of the four Working Groups are outlined below.

The Hydrogeology Working Group has worked on two parallel activities: a) updating the GIS database with the features of a DIKTAS hydrogeological map (e.g. hydrogeological units, geological boundaries, tectonics, main springs) for all countries (with special focus on Albania) and b) the detailed characterization of aquifers in project transboundary areas (including delineation of catchments areas, groundwater budget estimations, etc.) as a basis for the Transboundary Diagnostic Analysis, with data collected by the DIKTAS Environment and Socio-Economics Working Group.



The basic hydrogeological data collection and the required analyses for the first draft of the Transboundary Diagnostic Analysis will be completed by mid-June. The updated GIS database and the hydrogeological map will be discussed and approved at the joint meeting with the Environment and Socio-Economics Working Group (to be held in June at the location of the Project Coordination Unit in Trebinje, Bosnia and Herzegovina.

The Environment and Socio-Economics Working Group has collected various regional data on environmental and socio-economic issues in project participating countries. These data are stored in a structural way in the DIKTAS project's regional database, along with hydrogeological data, collected by the Hydrogeology Working Group. All collected data are nowadays processed for the purpose of Transboundary Diagnostic Analysis, i.e. the identification and prioritisation of issues of transboundary concern.

In the first quarter of 2012 the Working Group has finalized the general collection of environmental and socio-economic data and accommodated them in the DIKTAS GIS and database. Currently, the national experts are focusing their work on the targeted collection of data for seven transboundary aquifers within the project area. The aim is to identify current and potential pressures on water resources, in terms of quantity and quality. Following the identification of issues of transboundary concern during the joint working group meeting in June, the Working Group will take up the work on two important items contributing to the overall TDA: (i) conduct an impact assessment (e.g. assess the implications of identified pollution sources on the environment and human health) and (ii) carry out the root-cause analysis (e.g. analyse the underlying cause of identified pollutions (such as leakage, lack of legislation or lack of law enforcement?).



In order to contribute to the TDA, the Working Group Legal and Institutional Framework and Policy has set up two main goals: a) to analyse relevant international and national regulatory documents and international laws and guidelines on transboundary aquifers as a tool for harmonization of policies; b) to produce a proposal (with several alternatives) for harmonization of national groundwater policies and legislative framework as a support for development of SAP.

So far, national experts have updated their national reports on legal, institutional and policy framework in respective countries. They also filled in a questionnaire, specifically

tailored to obtain more detailed insight into the implementation of the groundwater management issues into national legal and policy framework. All national experts in the WG have carried out a country-based SWOT to outline differences/similarities in approaches among countries regarding management, use and protection of water. In order to outline regional (transboundary) approach regarding groundwater management in DIKTAS region, a regional SWOT analysis was conducted as well, providing an outline of the regional transboundary groundwater management.

By the end of 2012 the work group will: a) summarize results from the analysis of national and international legal and policy documents; b) identify key issues regarding transboundary ground-water management to be included in the TDA; c) propose possible alternatives for harmonization of policies required for sound transboundary water management.



The Stakeholders' Participation and Communication Working Group has been very active in the first half of 2012 with the Stakeholder Analysis reaching a pivotal point with the completion of all necessary research into stakeholder identification and characterisation. The DIKTAS on-line questionnaire on "Issues relative to Karst Aquifers and Stakeholders' involvement" ran from December 2011 until April 2012; four National Consultation Meetings (NCMs) took place between 28<sup>th</sup> February and 8<sup>th</sup> of March 2012 in Sarajevo, Bosnia and Herzegovina; Zagreb, Croatia; Ti-

rana, Albania and; Podgorica, Montenegro as part of the Stakeholder Analysis in the framework of the DIKTAS Stakeholder Public Participation Strategy update. The NCMs aimed at assisting in a) identification of key issues and problems and b) acquisition of information that will be used for the preparation of the Stakeholder Analysis. The meetings were very successful in terms of organisation, stakeholders' participation and results. Furthermore, national experts conducted a series of interviews with selected key stakeholders during April and May. All results were recorded and will be included to the Final Stakeholder Analysis Report at the end of July 2012. The Working Group has also been working on update of the DIKTAS portal.





## Other news

## Second DIKTAS Steering Committee Meeting

The Second DIKTAS Steering Committee meeting was held in Tirana, Albania on 27 April 2012. Among others, the Steering Committee discussed, amended and approved the Terms of References for setting up National Interministerial Committees (NICs) and a regional Coordination and Information Exchange Body (CIE). NICS will focus on harmonization of existing groundwater-related frameworks and on priority reforms, whereas CIE will ensure sustainability of international cooperation on Dinaric Karst groundwaters.

#### Article on Public and Stakeholder Participation

Following the National Consultation Meetings in the four DIKTAS Project countries, A. Imamovic and M. Funduk, both National Experts for the DIKTAS Stakeholders' Participation and Communication Working Group from B&H and Croatia, prepared short review of the workshops in Sarajevo and Zagreb for transboundary magazine (newsletter) "Naša Neretva" (Our Neretva), published by the GEF financed "Neretva and Trebišnjica Water Management Project", preparing the Neretva-Trebišnjica RBM Plan in Croatia and BH among other activities. As the whole Neretva-Trebišnjica project area is a part of the DIKTAS project area, there is interest in connecting the two projects. The information on the NCM contributed greatly to the public and stakeholder participation for the creation of the integrated water resources management concept in the Neretva-Trebišnjica river basin, thus promoting connections between those two projects!

#### Synergies between DIKTAS and MedPartnership

UNESCO-IHP executes the component on "Management of Coastal Aquifers and Groundwater" of the Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem The GEF International Waters Sci-(MedPartnership) and is working to develop synergies between this project and DIKTAS in countries that are participating in both initiatives: Croatia, Bosnia & Herzegovina, Montenegro and Albania. These synergies stem from the complementary activities of the MedPartnership for the next Decade' will take place that, like DIKTAS, aim to improve the sustainable management of aquifers and groundwater in on 24-26 September, 2012 in Bangthe project countries. Outputs from the MedParternship that will be used to enhance the activi- kok, Thailand ties of DIKTAS include those that focus on the assessment of vulnerability, risk and uncertainty iwsc2012. The conference aims to related to coastal aquifers; the legal, institutional and policy aspects of coastal aquifers; and the preparation of a coastal aquifer supplement to the TDA-Med.

#### International Conference on Waters in Sensitive and Protected Areas

Croatian Water Pollution Control Society and European Water Association jointly organize the international conference on waters in sensitive and protected areas, which will be held in Zagreb next year (June 2013). The conference topics are:

1.Implementation of legal obligations related to water and environmental protection in sensitive areas

2.New concepts and technical solutions applicable in sensitive and protected areas.

- 3. Protection of groundwater resources and strategic drinking water reserves.
- 4. Protection of sensitive transboundary waters.

#### **Dinaric Karst Serial Nomination**

At the 35<sup>th</sup> session of the World Heritage Committee, the Dinaric Karst Serial Nomination was selected as one of the Pilot Upstream Project. The Upstream Process in support of World Heritage nominations has started on an experimental basis in 2011 and is an attempt to provide transparent and systematic support as early as needed in the nomination process and to identify more collaborative working methods in the nomination process.

A pilot project Dinaric Serial Karst Nomination is one of the most active upstream projects, driven by the support of the States Parties of Bosnia and Herzegovina, Croatia, Slovenia, Montenegro. It is also currently being discussed whether additional countries may join this project.

At the 2<sup>nd</sup> Dinaric Karst meeting held on 22 May 2012 in the Skocjan Park in Slovenia, the States Parties discussed the cooperation agreement . The meeting was attended by the representatives of the World Heritage Centre and the Advisory Bodies (ICOMOS and IUCN). The participants of the meeting also discussed the further steps to take prior presenting the common nomination to the World Heritage Committee.

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# News bits

#### **Technical site visit**

The DIKTAS Hydrogeology Working Groups organised field visit to the groundwater intake of Bolje sestre at Skadar /Shkoder Lake shoreline. The intake is used for water supply of the Montenegrin coast



#### September 2012, a month of special interest for Karst Hydrology.

The 40<sup>th</sup> Congress of International Association of Hydrogeologists (IAH), entitled Confronting Global Change, will be organized in Niagara Falls Canada on the 16-23 Sep 2012 DIKTAS project will be represented by the members of the Hydrogeology Working Group and will present two thematic papers from the project area. Information concerning the IAH Congress can be found in the IAH website: http://www.iah2012.org/

ence Conference 2012, 'Setting the International Water Science Priorities provide a science-policy interface to strengthen the role of science in the management of water systems at the global, regional and local level, focus on emerging issues and critical challenges, and highlight the scientific findings of GEF International Waters projects.

#### Quiz How much do you know about karst aquifers?

Karst is a special type of geologic environment that is formed when soluble rocks are corroded and dissolved by percolating water. How does rain water infiltrates the ground in karst landscapes?

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