



# **DIKTAS**

## **Protection and Sustainable Use of the Dinaric Karst Transboundary Aquifer System**

**Full Size Project**

PIMS 4056

# **Project Inception Report**

**March 2011**



**Albania**

Ministry of Environment,  
Forestry and Water  
Administration



**Bosnia and Herzegovina**

Ministry of Foreign  
Trade and Economic  
Relations



**Croatia**

Ministry of Regional  
Development, Forestry and  
Water Management



**Montenegro**

Ministry for Spatial  
Planning and the  
Environment

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## Acronyms

APR	Annual Project Report
AWP	Annual Work Plan
CIE	Consultation and Information Exchange Body
EU	European Union
FSP	Full Sized Project
GEF	Global Environment Facility
GWP	Global Water Partnership
IHP	International Hydrological Programme (UNESCO)
INRM	Integrated Natural Resources Management
INWEB	International Network of Water-Environment Centres for the Balkans
IR	Inception Report
ISARM	Internationally Shared Aquifer Resources Management
ISRBC	International Sava River Basin Commission
IW	GEF International Waters Focal Area
M&E	Monitoring & Evaluation
EUWI	EU Water Initiative
MED MAP	Mediterranean Action Plan (UNEP)
MOU	Memorandum of Understanding
NEU	National Execution Unit
NFP	National Focal Point
NGO	Non-Governmental Organization
IMC	Inter-ministerial Committee
NIP	National Implementation Plan
PCU	Project Coordination Unit
PDF	Project Development Facility
PFD	Project Framework Document
PIF	Project Identification Form
PIR	Project Implementation Review (Annual)
PPG	Project Preparation Grant
PS	Project Specialist
PST	Project Supervision Team
RAF	Resource Allocation Framework
RCU	Regional Coordinating Unit
SAP	Strategic Action Programme
SAPI	Scientific Advisory Panel
SC	Steering Committee
SGP	Small Grant Program (GEF-UNDP)
SRF	Strategic Results Framework
TDA	Transboundary Diagnostic Analysis
ToR	Terms of Reference
UN	United Nations
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WFD	Water Framework Directive

## 1. INTRODUCTION AND BACKGROUND

This document reports on the DIKTAS project inception phase and provides the workplan for the first year of the project execution phase. A brief introduction of the DIKTAS project (background, objectives, involved countries and organisations) is given in chapter 1, followed by an overview of activities carried out during the project preparation phase. The changes in project activities applied during the project inception phase are reported in the chapter 2. The inception phase started with project endorsement and is rounded off with the Inception Workshop. The workshop purpose, activities and conclusions are presented in the chapter 3. Project updates from the inception phase and the workshops recommendations are included in the Annual Work Plan for 2011 (chapter 4). Chapter 5 contains the updated project Strategic Results Framework (SRF) and chapter 6 the main conclusions of the Inception Report.

The budget overview and the terms of references (for selection of national and international consultants) are provided in the annexes of this document.

### 1.1. DIKTAS project

The GEF-UNDP regional project *Protection and Sustainable Use of the Dinaric Karst Transboundary Aquifer System*, hereinafter called ‘DIKTAS’ Project, is the first ever attempted globally to introduce sustainable integrated management principles in a transboundary karst freshwater aquifer of the magnitude of the Dinaric Karst System. At the global level the project aims at focusing the attention of the international community on the huge but vulnerable water resources contained in karst aquifers (carbonate rock formations), which are widespread globally, but poorly understood. The Dinaric Karst Aquifer System, shared by several countries and one of the world’s largest, has been identified as an ideal opportunity for applying new and integrated management approaches to these unique freshwater resources and ecosystems. At the regional level the project’s objectives are to (i) facilitate the equitable and sustainable utilization and management of the transboundary water resources of the Dinaric Karst Aquifer System, and (ii) protect from natural and man-made hazards, including climate change, the unique groundwater dependent ecosystems that characterize the Dinaric Karst region of the Balkan Peninsula. These objectives, which aim to contribute to the sustainable development of the region, are expected to be achieved through a concerted multi-country effort involving improvement in scientific understanding, the building of political consensus around key reforms and new policies, the enhanced coordination among countries, donors, projects and agencies, and the consolidation of national and international support.

The project will produce a better knowledge of the groundwater resources contained in the Dinaric Karst Transboundary Aquifer System and consensus on the causes of its degradation (TDA), a consultation mechanism among the countries sharing the aquifer, formal agreement on corrective actions including policy, legal and institutional reforms, and investments, to be taken jointly (SAP), and improved awareness and sustained international support. Results will be measured in terms of the achievement of key benchmarks (establishment of national inter-ministry committees, approval of TDA, endorsement of SAP, establishment of a joint permanent consultation mechanism).

Partner countries in the framework of the DIKTAS project are Albania, Bosnia and Herzegovina, Croatia and Montenegro as GEF-recipient countries, as well as Greece, Italy and Slovenia as non-recipient countries. Besides, a number of international organizations and institutions, such as the International Association of Hydrogeologists (IAH) - Commission for

Karst, GWP-Med, the French Geological Survey (BRGM), Competence Pool Water (Austria) are actively participating in the DIKTAS project as co-financing partners.

The project is implemented by UNDP and executed by UNESCO's International Hydrological Programme (IHP), an intergovernmental scientific cooperative programme in water research, water resources management, education and capacity-building, and the only broadly-based science programme of the UN system in this area. UNESCO's regional office for science and culture in Europe, located in Venice, as well as the UNESCO Antenna office in Sarajevo are actively supporting the project implementation. The role of UNESCO's international network of water related centres and chairs is of central importance for the project: the UNESCO-WMO International Groundwater Resources Assessment Centre (IGRAC), the UNESCO Chair and International Network of Water-Environment Centres for the Balkans (INWEB) and the UNESCO International Research Centre on Karst (IRCK), Guilin, China, are the most relevant to be mentioned.

## **1.2. Project Preparation Phase**

Following the approval of the project concept (PIF) in 2008, the GEF endorsed a one year Project Preparation Phase in order to develop the Project Document for the Full Size Project (FSP) "Protection and Sustainable Use of the Dinaric Karst Aquifer System". The Preparation Phase included the preparation of a preliminary Transboundary Diagnostic Analysis.

Five multi-country working groups were established during this phase focusing on (i) Hydrogeology and Environment; (ii) Policy, legal and institutional frameworks; (iii) Pilots sites; (iv) Communication and Stakeholder Involvement; (v) Information Technology. Eight national experts, two from each of the project recipient countries, were contracted by the project and prepared national reports on (i) Hydrogeology and Environment and (ii) Policy, legal and institutional frameworks. The reports focus on a) gaps in the legal and institutional frameworks; b) perceived issues of transboundary concern; and c) options for joint interventions and reform at DIKTAS level. Finally, regional synthesis reports were prepared in view of the preparation of the Project Document.

During the Project Preparation Phase four meetings were held:

- (i) Project Inception Workshop in Podgorica, Montenegro, in November 2008, hosted by the Ministry of Tourism and Environmental Protection, Montenegro.
- (ii) Second DIKTAS Workshop in Zagreb, Croatia, in March 2009, hosted by the Ministry of Regional Development, Forestry and Water Management of Croatia.
- (iii) A meeting of the working group on Policy, Legal and Institutional Frameworks was held in Sarajevo from 27-28 April. The meeting was organized with the support of the Ministry of Foreign Trade and Economic Relations of Bosnia-Herzegovina.
- (iv) The final validation workshop of the project preparation phase was organized in Venice, on 12-13 October. During the workshop agreement was achieved among all partners on the final version of Project Document.

All project countries provided written commitments for co-financing contributions to the project. Bosnia-Herzegovina offered to host the Project Coordination Unit (PCU) at the Water Agency for the Trebisnjica River Basin, in Trebinje. The offer was accepted by all project partners.

The DIKTAS Project Document and request for GEF-CEO Endorsement of the Full Size Project were submitted to UNDP Regional Office in Bratislava on 29 October 2009. The DIKTAS project preparation phase (PPG phase) was officially closed.

The DIKTAS Full Size Project was endorsed for funding by the GEF Secretariat on 4 January 2010.

## 2. PROJECT INCEPTION PHASE

The period between endorsement of the project by the GEF CEO (4 January 2010) and the official start of implementation of project activities is considered as the project Inception Phase. The project inception phase ends with the organization of the project Inception Workshop that is carried out with contribution of the project team, relevant government counterparts, co-financing partners, and representatives from both Implementing Agency (UNDP) and Executing Agency (UNESCO-IHP).

It was intended to keep the Inception Phase short as possible in order to preserve continuity of activities and the commitments of involved parties. Depending on the duration of the Inception Phase it is possible that conditions related to the project environment change, which may impact the project activities. Therefore, it is necessary that during the inception phase the project team revises the project activities as planned and described in the Project Document in view of any external factors that may influence their implementation (e.g. new projects or activities having commenced in the meantime, overlapping with the objectives of the project). If this is the case, adjustments to the Project Document need to be made, in order to reflect the new situation.

In the case of the DIKTAS project the Inception Phase was reasonably short and no major changes influencing the planned implementation of project activities were identified. Nevertheless, some project-related activities were conducted in this period and they are listed below:

- Administrative arrangements between GEF and Implementing Agency completed;
- Delegation of Authority from Implementing Agency (UNDP) to Executing Agency (UNESCO-IHP) was provided (15 April 2010);
- Cooperation arrangement between Implementing Agency and Executing Agencies established;
- Following the recommendations received from the project countries, the DIKTAS Project Coordinator, Dr Neno Kukuric was appointed;
- The DIKTAS Project Coordination Unit (PCU), hosted by the Water Agency for the Trebinjica River Basin in Trebinje, B&H, was set up, took ownership of the project's goals and objectives and established close working relationships with all project partners;
- Nomination of the DIKTAS national focal points for the Full Size Project by each government (**Albania**: Mr Ildir Gumbardhi, Head of Sector of Water Resources, Ministry of Environment, Forests and Water Administration; **Bosnia and Herzegovina**: Ms Biljana Rajic, Senior Advisor for Water Resources, Ministry of Foreign Trade and Economic Relations; **Croatia**: Mr Darko Rajhenbah, Head of Water Policy Department, Ministry of Regional Development, Forestry and Water Management; **Montenegro**: Mr Novak Cadjenovic, Ministry of Spatial Planning and Environment);

One of the main project activities during the inception phase was the organization of the project Inception Workshop. The purpose, activities and the outcomes of the workshop are presented in next chapter. This chapter will be concluded with few remarks regarding the political process during the inception phase.

The Dinaric Karst Aquifer System extends also to the territory of the Republic of Serbia and various contacts have been established during the inception phase in order to involve this country in the project. Since Serbia traditionally has a strong hydrogeological school, it will be important to engage hydrogeological specialists from Serbia to participate in the project and bring in the specific regional knowledge. That has eventually been agreed, so the specialists from the Institute of Hydrogeology (Belgrade University) and maybe some other institutions in Serbia will participate in the execution phase of the project.

Since the Former Yugoslav Republic of Macedonia (FYROM) makes a part of the DIKTAS project area, an effort was made to involve FYROM in the project. FYROM is one of the partners in the regional GEF Prespa Lake project and the invitation was sent to the Prespa Lake project manager to attend the DIKTAS Inception Workshop.

The organisational and individual changes due to political processes in the project countries during the inception phase have required an additional effort from the project team to (re)establish cooperation with (other or newly formed) ministries and (new) country representatives. This is neither unexpected nor specific for this project; yet, it has influenced the project performance and needs to be mentioned.



### **3. INCEPTION WORKSHOP**

The Inception Workshop was held in Trebinje, Bosnia and Herzegovina, from 10-12 November 2010. The agenda of the workshop is given in the Annex 3. As customary for GEF projects, the workshop took place in the country hosting the PCU (the PCU is hosted by Water Agency River Basin Trebisnjica). Thirty-eight participants from the project countries and the project partner countries and international organisations took part in the workshop (the participant list is provided in Annex 3).

This chapter provides an overview of the workshop purpose, the main activities and the conclusions. The workshop was organised and conducted according to the guidelines provided by UNDP. At the same time, the changes and activities occurred during the project inception phase (see previous chapter) were also taken in account while conducting the workshop. This approach has provided the workshop conclusions and recommendations a broader perspective and validity.

#### **3.1 Purpose and Expectations**

The objectives of the Inception Workshop are described in the Project Document (under Monitoring and Reporting, p42) and in the UNDP Guidelines for project Inception Workshops.

A fundamental objective of the Inception Workshop is to assist the project team to understand and take ownership of the project's goals and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the project's logframe matrix or Strategic Results Framework (SRF). This includes reviewing the SRF (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise, finalizing the Annual Work Plan (AWP) with precise and measurable performance indicators and in a manner consistent with the expected outcomes for the project.

Additionally, the purpose and objectives of the Inception Workshop (IW) are to: (i) introduce project staff with the UNDP/GEF and UNESCO-IHP team which will support the project during its implementation, (ii) detail the roles, support services and complementary responsibilities of UNDP/GEF and UNESCO-IHP staff vis-à-vis the project team; (iii) provide a detailed overview of UNDP/GEF reporting and Monitoring and Evaluation (M&E) requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, as well as mid-term and final evaluations.

The IW is also aimed at all parties understanding their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The terms of reference for project staff and decision-making structures are to be discussed again, as needed, in order to clarify each party's responsibilities during the project implementation phase. When the time passed since the signature of the project document is significant, the Inception Workshop is used to rebuild the commitment and momentum and ensures that the project team and other stakeholders have a clear understanding of what the project seeks to achieve and their own roles in achieving the objectives. Finally, the Inception Workshop is an important step towards establishing of the project team, support structures (e.g. Steering Committee) and procedures (monitoring, reporting, etc).

In the next chapter the workshop activities are presented, including their role and purpose with respect to the workshop objectives.

### 3.2 Workshop Activities

The workshop activities were carried out over two and a half days, including the workshop field trip (see the workshop agenda, Annex 3). The main workshop elements were: a) the opening, b) presentation of the project, its preliminary results and the planned activities, c) presentation of the role of the Implementing Agency and Executing Agency, d) development of the annual project workplan and e) the field trip. These activities will be briefly described below.

#### a) Opening

The workshop was officially opened by His Excellency Mr Mihajlo Stevanovic, Deputy Minister, Ministry of Agriculture, Forestry and Water Management of Republic of Srpska, Bosnia and Herzegovina. The Deputy Minister emphasized the importance of the DIKTAS project for Bosnia and Herzegovina and the international cooperation in the region. The karst water resources are of central importance for development of the region, requiring appropriate assessment and joint management schemes. These were the main reasons for the Ministry to offer to host the Project Coordination Unit (PCU). Welcome addresses were subsequently provided by Mr Vladimir Mamaev (UNDP) and Mr Holger Treidel (UNESCO-IHP). Mr Mamaev introduced the GEF International Waters Focal Area and pointed out the importance of appropriate monitoring and reporting. On behalf of UNESCO, Mr Treidel expressed his gratitude to the Ministry of Agriculture, Forestry and Water Management of Republic of Srpska, Bosnia and Herzegovina for its readiness to host the DIKTAS PCU as well as the project Inception Workshop. He also provided a brief overview of UNESCO-IHP transboundary aquifer activities, carried out in the framework of ISARM programme ([www.isarm.net](http://www.isarm.net)). On behalf of the Implementing Agency (UNDP) and the Executing Agency (UNESCO-IHP), Mr Treidel announced the appointment of Mr Neno Kukuric as a DIKTAS project coordinator.

- b) **Presentation of the project**, its preliminary results and the planned activities. Mr. Kukuric presented a comprehensive **overview of the project's** scope, motivation, history, structure, activities, and time schedule<sup>1</sup>. He emphasised the importance of clear agreements and extended cooperation both within the project and with other on-going projects in the region.

In continuation, **three large GEF funded projects, currently being implemented in the Dinaric Karst region**, were introduced with the purpose of sharing experiences and exploring possibilities for cooperation with the DIKTAS project.<sup>2</sup> Firstly Mr Miroslav Steinbauer presented the 'Neretva and Trebisnjica Management project' conducted in Croatia and Bosnia and Herzegovina. The project is funded by GEF and implemented by International Bank for Reconstruction and Development (IBRD). The project deals with transboundary water management, management of ecosystems and priority investments for pollution control. Located entirely within the Dinaric karst, this project can provide a lot of data and information relevant for DIKTAS project activities (such as transboundary diagnostic analysis and public participation). Subsequently, Mr Victor Subotic presented the project Lake Skadar-Shkoder Integrated Ecosystem Management Project that is conducted in Albania and

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<sup>1</sup> All the presentations made during the Inception Workshop are available in the DIKTAS project website (<http://dinaric.iwlearn.org/>).

<sup>2</sup> The project manager of the Lake Prespa Project (Ms. Violeta Zuna), another GEF funded project in the region, was not able to participate in the workshop.

Montenegro, funded by GEF and implemented by World Bank. The project objective is to maintain and enhance the long-term value and environmental services of Lake Skadar-Shkoder and its natural resources. Cooperation established between the project partners will certainly be helpful for the cooperation within the DIKTAS project. Finally, Mr Holger Treidel briefly introduced the sub-component on “Management of Coastal Aquifers and Groundwater” of the GEF-UNEP/MAP Strategic Partnership for the Mediterranean Large Marine Ecosystem (MedPartnership) project. Executed by UNESCO-IHP the component will implement a number of activities in the Adriatic coast, including case studies on aquifer vulnerability mapping in Croatia and Integrated Coastal Zone Management Plans in the area Bojana/Buna river, shared by Albania and Montenegro. These activities are expected to be beneficial for the DIKTAS project. Cooperation between these two projects has already been established.

The results of the DIKTAS **Preliminary Transboundary Diagnostic Analysis (TDA)** that was prepared during the project preparation phase, were presented jointly by Mr Boban Jolovic, Mr Zelimir Pekas and Ms Selma Cengic. An overview of the hydrogeological and environmental situation in the project region, based on four national reports produced during the project preparation phase was presented first, followed by an overview (prepared in cooperation with Mr Zoran Nakic) on legal institutional, and policy context of the preliminary TDA (also based of four national reports).

In continuation of the presentations on the preliminary results, Mr Treidel provided an extended **overview of the project components and outcomes**. The four main project components are: 1) Improving the understanding of the resource and of its environmental status, 2) Establishing cooperation among the countries sharing the aquifer, 3) Facilitating harmonisation of policies and priority reforms and 4) Provision of appropriate communication, stakeholders involvement, dissemination and replication. These components are the operational objectives of the project and provide the basis for the project activities. Hence, the common understanding and clarity regarding the project components and principle objectives was reconfirmed prior to commencing the development of the annual work plan. The project components are elaborated in detail in the Project Document. The Inception Workshop concluded that there was no need for any adjustments on the project outcome level.

The review of project related presentations was rounded of by **project partners** from non GEF- recipient countries and partner organizations. They provided insight in scope of their activities and intended contributions to DIKTAS. Informative and enlightening presentations were given by Mr Andrei Mihevc (Karst Centre Slovenia), Mr Cao Jianhua (International Research Centre on Karst, Guilin, China), Mr Neven Kresic (IAH Karst Commission), Mr Jacques Ganoulis (UNESCO Chair – INWEB Thessaloniki, Greece), Mr Didier Pennequin (BRGM, France), Mr Stefan Schafranek (Competence Pool Water, Austria) and Mr Roberto Vallone (National Research Council (Italy), Mr Geary Schindel (Edwards Aquifer Authority (USA), Mr Petar Milanovic (International Karst expert, Serbia) and Mr Bartolomeo Navarro (University of Malaga, Spain). The great commitment of the various partners to the DIKTAS project was acknowledged with great appreciation. It is expected that their active involvement will contribute significantly to achieving the objectives of the project.

- c) Presentation of the role of **Implementing Agency (UNDP) and Executing Agency (UNESCO-IHP)**

In accordance with the objectives of the Inception Workshop, Mr Vladimir Mamaev introduced to the participants the Monitoring and Evaluation procedure of GEF/UNDP projects. He elaborated on the concept of adaptive management that is applied in all GEF International Waters Projects, and project management and reporting requirements and tools that are used by GEF IW projects, including monitoring the progress of project implementation (logical framework, annual work plan, and external project evaluation (Mid Term and Final Evaluation)).

On behalf of the Executing Agency, Mr Holger Treidel explained in detail the project management structure, including the composition of the project management team, the Steering Committee, Project Coordination Unit, scientific advisory panel and National Execution Units. He also elaborated on the composition and the role national interministerial committees and the regional consultation and information exchange body that need to be set up in the course of the project. He also elaborated on the important function of the project Steering Committee (SC) in overseeing project activities and approving any changes that deviate from the Project Document, in terms of activities and budget. It was noted that the representatives of the SC yet need to be nominated by the countries.

d) Development of the **Annual Work Plan**

During the workshop, three sessions were dedicated to the development of the Annual Work Plan. During the first session a proposed annual work plan was presented and discussed in plenary. The proposal was based on the Indicative Quarterly Work Plan and the Strategic Results Framework, as included in the Project Document. The changes/activities during the project inception phase were taken in account during the discussions and are presented in chapter 3 of this report. During this first session, Mr Dimitris Faloutsos (GWP-Med) also presented an elaborated proposal for the stakeholder participation activities in the first year of project implementation.

In the second session, the participants split in two groups, one dedicated to hydrogeological and environmental issues, and the other discussing socio-economical, legal and stakeholder participation issues.

The third session was held in plenary, combining the reports from the working groups and preparing the workshop conclusions. The annual work plan is presented separately in this document (Chapter 4).

e) The field trip

**The field trip** consisted of two parts, namely visits of the Grancarevo dam and Ombla spring. Both visits were very relevant for the project and very interesting for the workshop participants. The Grancarevo dam is built almost 50 years ago in holokarst, i.e. in a region of full karst development. The dam is 123m high and 439m wide. The maximal storage of the accumulation formed by the dam is 1.3 billion m<sup>3</sup>. The water power production company 'HET' kindly provided a technical tour at the dam site. The Ombla spring is one of the largest karst springs in the world with maximal capacity of more than 100 m<sup>3</sup>/s. Mr Petar Milanovic guided the participants at the spring site. The field trip also included a short visit to the Old City of Dubrovnik.

### 3.3 Conclusions

The DIKTAS Inception Workshop has fulfilled the expectations. The workshop provided an opportunity for all parties involved in the project to understand their roles, functions and responsibilities within the project. In their presentations and discussions, the participants reconfirmed their enthusiasm and commitment to the project. New ideas for project cooperation were discussed (e.g. with Dinaric Arc and UNDAF programmes), including exchange of information (e.g. GEF projects in the region), organisation of training courses on Karst hydrogeology and management (e.g. University of Malaga and International Research Centre for Karst), pilot case studies (e.g. the wetland 'Hutovo Blato', Sava River Commission), study tours (e.g. Edwards Aquifer), etc.

The preliminary results and the project objectives were clearly presented to the participants, along with the project management and supporting structure, containing the important GEF/UNDP Monitoring and Reporting procedure. This overview allowed the participants to embark on the development of the Annual Work Plan. The plan is an elaboration of the Indicative Quarterly Work Plan and the Strategic Results Framework, both available in the Project Document. Due to the time span of the Inception Phase (ca. 6 months), a cost-neutral extension of the project has been requested by the participants of the meeting. Besides the request for project extension, no other significant impact on the project activities and the project structure (both specified in the Project Document) has been made during the Inception Phase.

The participants acknowledged the excellent organisation of the workshop that was provided by the Project Coordination Unit, and the UNESCO office in Sarajevo. The PCU premises (visited by the UNESCO-IHP representative) are newly furnished and fully suitable for the purpose of hosting the PCU.

In the coming months, the PCU needs to be populated by secretarial and administrative/ financial staff. The PCU technical support structures, namely the National Execution Units and the Scientific Advisory Panel (SAPI) need to be staffed as well. The project Inception Report contains the ToRs for the project staff (attached as Annex 2). The project Steering Committee should be set up in a short period of time.

The content conclusions and recommendations of the workshop have been used to develop the project Annual Work Plan for the first year of project implementation, including the content activities, budgeting and the execution modalities.

## **4 ANNUAL WORK PLAN**

### **4.1 Rationale**

The Annual Work Plan for 2011 is based on the Strategic Results Framework as specified in the Section II of the DIKTAS Project Document. The Annual Work plan is fully in line with the project main activities described in the Project Document (Chapter 2.3), without any substantial change. Nevertheless, minor alterations and further specification of the activities (as described in the Project Document) have been applied and therefore addressed below. The changes are almost entirely a result of new insights obtained during the Inception Workshop.

The time schedule adopted in the Annual Work Plan is an elaboration of the Indicative Quarterly Work Plan (Project Document, p55). The main changes as presented in the following are due to delay in starting the implementation of project activities, thus postponing all activities by 6 months. The extension of the project by the same amount of time is foreseen and will be discussed during the first Steering Committee meeting.

The Annual Work Plan for the first year of project implementation, 2011, is presented in the text further in this chapter and summarised in the table 1. The table includes an overview of main activities, their relation with project outcomes and outputs and remarks on responsibilities and deadlines. The activities not planned to start in 2012 or later are just mentioned in the table or (if relevant for the understanding of 2011 activities) very briefly described in the text.

The DIKTAS project consists of four components, each of them related to a certain outcome. The activities (individual or grouped) provide outputs required to reach projected outcomes. A total of 11 outputs are defined in the Project Document. In the first year of project implementation, the main activities will be those related to the project Component 1 and 4 (Table 1). In the Project Document, commencement of most of the Component 2 and 3 activities is not envisaged for the first project year. However, one of the conclusions of the Inception Workshop was to start some of these activities earlier as they will require a longer preparation than previously foreseen. This conclusion has been implemented in the Annual Work Plan, being conditioned by the progress of other activities and available project capacity.

The project management modalities, inclusive the monitoring and reporting, are discussed in the last section of this chapter. In Table 1, related activities are denoted as general project activities.

### **4.2 Activities 2011**

The activities are presented in the same way as in the Project Document in order to preserve consistency of project document presentation and allow for direct comparison.

**COMPONENT 1. IMPROVING THE UNDERSTANDING OF THE RESOURCE AND OF ITS ENVIRONMENTAL STATUS**

**OUTCOME 1. COUNTRIES RECOGNIZE THE KARST AQUIFER SYSTEM AS A SHARED AND HIGHLY VULNERABLE RESOURCE, AND AGREE TO TAKE STEPS TO DEAL WITH ITS TRANSBOUNDARY IMPLICATIONS.**

**Output 1.** *A Transboundary Diagnostic Analysis (TDA) prepared and approved by countries: transboundary problems and root causes identified and options for interventions to address national and transboundary problems proposed*

Under this output the TDA process will be undertaken, and the TDA document will be prepared and approved, including a causal chain analysis to identify and prioritize critical areas for interventions, investments, and reforms within the SAP. This process will build upon the preliminary but extensive assessments carried out as part of the PPG phase. The causal chain analysis will facilitate assessment of the geographic scope, severity, and environmental and economic consequences of issues identified. The TDA will lead to the identification of priority interventions for inclusion in the SAP, which are needed to address underlying/root causes; filling of knowledge gaps; legal, policy, and institutional reforms; investments; economic instruments; and awareness raising and stakeholder involvement. The TDA will also identify the gaps in the baseline information necessary for the establishment of the SAP monitoring and evaluation framework. The TDA will be prepared by the project Working Groups (composed of the representatives of NEUs and regional and international consultants), under the lead of the PCU and with guidance from the Science Advisory Panel, and eventually approved by the national inter-ministerial committees and the project Steering Committee. The draft TDA will undergo a rapid consultation process, as appropriate, with key stakeholders to incorporate their views and knowledge and become a common basis in the concerned countries, on which solutions will be planned and cooperation will be built. The final and approved TDA, in English and the five languages spoken in the region (Albanian, Bosnian, Croatian, Montenegrin, and Serbian) will be disseminated widely and will be used for the SAP development. The project will work closely with the countries to develop the SAP based on the scientific, policy, and institutional assessments contained in the TDA.

According to the Project Document, the preparation of the TDA would take three years. However, during the Inception Workshop, the UNDP representative suggested to substantially shorten this period, in order to allow sufficient time for the preparation of the SAP. The suggestion has been accepted and the preparation period is reduced to two years. The production of this project output will require five main activities (listed below). Three of them (1-3) will be carried out in 2011 and during the first half of 2012. The remaining two (4-5) will be carried out in 2012. The TDA preparation (output 1) is expected to be finalized by the end of 2012.

1 Regional hydrogeological characterization of the Dinaric Karst Aquifer System. The hydrogeological characterization carried out in Albania, Bosnia-Herzegovina, Croatia and Montenegro during the project preparation phase will be used as basis for the regional hydrogeological characterization in this phase of the project. The main activity will be the harmonization of hydrogeological data at regional scale. It will include at least the harmonization of karst regions across the four core-project countries. Harmonisation of the wider project area (from Greece to Italy) is desirable but subject to data availability and required harmonization effort.

This task will be carried out by the Working Group Hydrogeology that will be set up at the beginning of 2011 (see also about the execution modalities further in this chapter). The group needs to agree about (and write down) the harmonization procedure (including the principles, scale, parameters, etc.). A draft map should be produced early in the process and probably at the scale of **1: 500.000**. This will be a complex task and the sheets of the Geological Map of Yugoslavia (available for Bosnia and Herzegovina, Croatia and Montenegro) seem to be the best starting point. For the harmonisation between Albania and Montenegro, geological and hydrogeological map will be used (from Albanian side).

Setting up a project GIS database at the PCU and the technical implementation of agreements and harmonisation of outcomes in GIS format will be an important part of this activity.

The main result of the activity will be a regional hydrogeological map that will be accompanied by a commonly agreed legend and a document describing the implemented harmonization procedure. The hydrogeological characterization will include both groundwater quantity and quality characterization. The results of the characterization will be used as basis for

various thematic maps during the environmental and socio-economical assessment. The thematic maps will eventually lead to the creation of a **DIKTAS Management Map** (see below the TDA synthesis). Therefore, the main portion of hydrogeological characterization should preferably be conducted in 2011 and the characterisation rounded off before July 2012.

2. Regional environmental and socio-economical assessment will take in consideration both natural conditions as well as anthropogenic impact (such as population and economic activities). The assessment will result in a number of thematic regional maps showing (combination of) various environmental and socio-economic parameters. Data on (point, line, distributed) sources of pollution, population distribution, ecosystems, existing and planned infrastructure and human activities (reservoirs, tunnels, industry, waste disposal facilities, agricultural activities) and similar, will be collected, processed and presented in the framework of this activity. Both, environmental and socio-economical assessment will have a regional character and will be limited to possible impacts on Dinaric karst groundwaters, and in particular to transboundary impacts. This part of the TDA will be conducted by the Working Group Environment and Socio-Economics during 2011 and the first half of 2012.

3. Regional assessment of legal and institutional frameworks and policies. This activity will consist of a critical review of the existing policy, legal and institutional conditions related to water and land use and management. This work will build on the results achieved at the national level during the PPG (see the Project Document, Annex 1: Table on Legal and institutional frameworks and policies), and will highlight the threats posed to the resource by excessive or conflicting demands and water uses, and by inadequate, missing, non-harmonized policy and institutional frameworks. This part of the regional assessment will yield the information necessary for proposals for harmonization of policies required for sound transboundary water management (later in the project). The activity will be carried out by the Working Group Legal and Institutional Framework, starting in 2011 and finishing in 2012.

4. Synthesis and finalization of the Transboundary Diagnostic Analysis. The activity includes synthesis of the various parts of the TDA that are prepared by the three working groups. The Working Groups will work together and concentrate on issues of transboundary importance and concern at the regional scale. They will further elaborate on all major issues of transboundary concern that presently affect the Dinaric Karst and those that might affect it in the future under likely scenarios of economic development, EU accession, climate change, etc. The outcomes should be based on sound probability and risk analysis.

The outcomes of the TDA will be as much as possible integrated in the DIKTAS Management Map. This map is considered as a very innovative feature in the project and will be a management tool, probably GIS/ Touchscreen based, with predefined scenarios and visualisation functionalities. The Scientific Advisory Panel will be involved in the conceptualisation of this tool from the very beginning.

The TDA synthesis and finalisation will be carried out in 2012. This process will be led by the project coordinator, supported by the regional hydrogeologist (responsible for the hydrogeological part of TDA and the thematic maps).

- 5. Local Scale Activities Several case studies will be carried out to test management models and solutions at the local level. The relation of these approaches with institutional and policy setup will be investigated. Especially interesting will be to recognise the stakeholder specifics at local community level and their traditional ways to deal with the ecosystem, especially groundwater. Successful practices will be recommended to be included in SAP and replicated elsewhere. A possibility of involving a GEF Small Grants Program (SGP) in this activity will be explored (currently, SGP is implemented in the region, namely in Albania and FYR Macedonia). Case studies will be selected, building up on the work done during the project preparation phase. During the Inception Workshop, the wetland Hutovo Blato was mentioned as an appropriate test site. This activity will be conducted in 2012.



**Output 2.** *Baseline conditions identified, and environmental status indicators agreed upon and adopted*

The activities necessary to produce this output will be conducted next year (2012).

**COMPONENT 2. ESTABLISHING COOPERATION AMONG COUNTRIES SHARING THE AQUIFER**

**OUTCOME 2. THE STRENGTHENED COLLECTIVE KNOWLEDGE AND COORDINATION AMONG DEVELOPMENT PLANS OF COUNTRIES, PROJECTS, AGENCIES AND DONORS, IMPROVES SUSTAINABILITY OF THE RESOURCE.**

The achievement of this key project outcome will be facilitated by the results and political commitment reached in Component 1 and through a number of related activities that will largely rely on communication and stakeholder involvement tools (Component 4). Hence, this component will practically commence not before the second project year, when the necessary inputs from other components become available. Nevertheless, some preparatory work will be included in Annual Work Plan for 2011 and it will be briefly outlined below (per related output).

**Output 3.** *A multi-country consultative body established and operational.*

A preparation for establishment of this multi-country Consultation and Information Exchange body (CIE) will start in July 2011 by drafting the Terms of Reference for CIE. Among others, the ToR will include the procedure for selection/nomination of the CIE members, the CIE role and responsibility, modus operandi, etc. Once the SC has approved and adopted the ToR, the members will be officially nominated and the first CIE meeting can be planned (most likely for January 2012).

**Output 4.** *Environmental quality targets adopted and a joint harmonized monitoring program of the environmental status established.*

Realisation of this output asks for the completed TDA process. Therefore, the Output 4 related activities will start in third project year (2013).

**Output 5.** *A mechanism for coordination and exchanges with other relevant projects and initiatives, including the GEF supported Mediterranean Partnership and others, established and operational.*

A mechanism for coordination and exchange needs to be prepared for a meeting of all the relevant projects and initiatives. The meeting will be organised by the PCU and hosted by the CIE which is expected to lead this process according to its mandate. While the meeting will be held in 2012, cooperation experiences, needs and suggestions for improvement of coordination and exchange will be collected from projects already during 2011. Subsequently, a draft document could be prepared by the DIKTAS Project Team, to be discussed during the first CIE meeting (foreseen to be held in January 2012).

**COMPONENT 3. FACILITATING HARMONIZATION OF POLICIES AND PRIORITY REFORMS**

**OUTCOME 3. POLITICAL COMMITMENT REACHED AMONG COUNTRIES ON IMPLEMENTING PRIORITY LEGAL, INSTITUTIONAL AND POLICY REFORMS FOR THE PROTECTION AND EQUITABLE UTILIZATION OF THE KARST AQUIFER SYSTEM.**

**Output 6.** *Countries establish ad hoc inter-ministerial committees focused on harmonization of existing frameworks, and on priority reforms*

National Inter-ministerial Committees (NICs) need to be established in parallel with the CIE. Since the all relevant country ministries should be involved in selection of CIE national representative, the related activities should be conducted in such a way as to ensure a more permanent character of information exchange among various ministries. In 2011, the ToR for the IMCs will be drafted, relevant ministries at national level identified and mechanisms to support the work of IMCs (such as a common digital archive) put in place.

**Output 7.** *A Strategic Action Program (SAP) for the DIKTAS, and National Implementation Plans, elaborated and adopted by the country at high ministerial level*

The activities relevant for this output will commence not before end 2012. It is foreseen to finalize the activities not later than end 2013, in order to allow sufficient time for early SAP implementation.

**Output 8.** *A partnership conference consolidates international support for the implementation of the priority actions*

A partnership conference will be organised towards the end of the project in 2014.

#### **COMPONENT 4                    COMMUNICATION, DISSEMINATION AND REPLICATION ACTIVITIES**

##### **OUTCOME 4.                    LONG TERM SUSTAINABILITY OF ACHIEVEMENTS ENHANCED THROUGH PUBLIC AND POLITICAL AWARENESS CAMPAIGNS, STAKEHOLDER INVOLVEMENT AND REPLICATION MECHANISMS.**

The communication, dissemination and replication activities will be executed throughout the project, having the key purpose of raising awareness about the project topics and of involving stakeholders in the project activities. This will lead to better project results and increase their sustainability and replication possibilities.

The Component 4 will produce three outputs (9-11), namely: the analysis and the involvement/dissemination tools, capacity building activities and the linkage to GEF IW-LEARN activities.

The Component 4 activities will be conducted by the Working Group Stakeholder Participation, with involvement of other members of the Project Team and external specialists (e.g. for a promotion material production).

**Output 9.** *Stakeholder Analysis, and information and communication activities to highlight project's progress and achievements and support stakeholder's involvement.*

The main activity in the first project year will be the Stakeholder Analysis (SA). The analysis will include identification of stakeholders and their (possible) relations with the projects. A number of interviews and meetings on national and international level will be required to perform the SA. The SA will help to revise the SPPS (Stakeholders and Public Participation Strategy) and to write a Strategic Information Communication Plan in 2011.

The Communication Plan will contain an overview of communication, consultation and involvement activities together with the time schedule for their execution in coming four project years. Some of the activities will be project-wide and some specifically designed to assist execution of specific project components or activities.

**Output 10.** *Targeted capacity building programs to encourage replication of new practices, behaviours and techniques.*

The capacity building programs will include both policy and technical issues and will be performed primarily to enhance the use and protection of karst aquifers at various levels (local, regional, national, international). These activities will also alleviate replication of best practices, solutions and techniques identified throughout the project implementation period. Most of capacity building activities will be performed later in the project. Nevertheless, some capacity building activities that support stakeholder engagement in the TDA will be developed and executed already in 2011. The project co-financing partners (countries as well as international organizations) will play an important role in this task.

**Output 11.** *Participation to IW LEARN activities and the project dissemination activities*

The project will actively participate in GEF IW biannual conferences in 2011 and 2013. The 2011 IW conference is of special interest to the DIKTAS project because the conference will be held at the Adriatic Coast (Dubrovnik) and DIKTAS will be one of the four hosting projects. As such, DIKTAS will participate in the hosting project session and assist in organisation of the conference, and in particular the field trips. The preparation for the field trip needs to start already in spring 2011. A video material should be recorded in various seasons and eventually combined with selected existing material.

The DIKTAS website has already been established by using the GEF IW-LEARN Content Manager. The site will be populated with all the relevant pieces of information available at the moment, and will be updated on regular basis. Besides, various external functionalities and on-line services (e.g. discussion fora, distance learning, special visualisation) could be purchased or developed and linked with the DIKTAS site, creating a DIKTAS on-line portal. The Project Communication Plan will bring more insight in various on-line service and feasibility of their implementation.

### **4.3 Execution Modalities**

The Annual Work Plan will be executed by the DIKTAS Project Team. The Project Team consists of the Project Management Team, the country experts (from NEUs) and international experts. Within the Project Team, Working Groups will be organised around main issues and carry out respective activities. For the execution of Annual Work Plan, four Working Groups will be established concerning:

- Hydrogeology
- Environment and socio-economics
- Legal and institutional framework
- Stakeholder participation

Each group will have a coordinator. The Project Coordinator (supported by NFPs) will coordinate the cooperation among the groups. The cooperation among the groups will intensify in the second year of project implementation (2012). For the synthesis and finalisation of the TDA, a new Working Group might be set up in 2012, composed of the coordinators of four Working Groups set up in 2011.

The staffing of the Project Team needs to be completed a.s.a.p, preferably not later than end of April 2011. That particularly concerns the population of NEUs with country experts. Each NEU will be composed of the NFP and four experts to be engaged in the four abovementioned Work Groups. The ToRs for the experts have been prepared and attached to this document (Annex 2). At least two candidates should be nominated (through the NFPs) for each of (in total sixteen) expert positions. The selection of candidates will be made by the Project Management Team.

For the purpose of the harmonisation of transboundary hydrogeological information, one or two regional hydrogeological experts will be contracted in 2011. One of them will be in charge of the

hydrogeological part of the TDA. A definitive decision will be made after the consultations with the Working Group Hydrogeology and checking the availability of candidates.

For the setting up and the maintenance of the project database (and especially for the purpose of the harmonisation of transboundary information) the project will need an international database/GIS specialist. The database will be located at the PCU. A possible synergy with the hosting organisation regarding the staff requirements will be explored.

The PCU should gradually evolve to serve as secretariat for the international consultation mechanism (see the output 3, page 14).

Besides the Project Team, the project Steering Committee (SC) and the Science Advisory Panel need to be set up at the beginning of 2011. The first meeting of the project SC is foreseen to be held by Mid April 2011.

With respect to the necessary project equipment, GIS software needs to be purchased and installed at the PCU office.

In order to discuss with national GEF focal points and other relevant authorities about the project progress, the project coordinator will visit the core-project countries preferably not later than end March 2011. This opportunity will also be used to clarify and further specify, if required, project execution modalities with the NFPs and other members of the NEUs.

The monitoring and reporting of the project activities will be carried out by the PCU as prescribed by GEF/UNDP. The content of the project SRF (or project logframe) as defined in the DIKTAS project document (Section II) remains unchanged, only some target dates are adjusted (see chapter 5).

The Annual Work Plan will be provided together with the Inception Phase/Workshop report (this document) at the beginning of the February. Quarterly operational reports and PIR/APR report will be provided in due time as well.

Table 1: DIKTAS annual Work Plan 2011

	Outputs	Activity	Responsibility	Expected completion	2011													
					Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec		
<b>General: THE PROJECT IS FULLY OPERATIONAL</b>	General: the project structure is in place, the Steering Committee (SC), Scientific Advisory Board (SAB) and Project Execution Team (PET) staffed	Establishing the project Steering Committee (SC)	Project Manager (PM) & Project Officer (PO) in cooperation with GEF NFPs	end February 2011	■	■												
		Establishing Science Advisory Board (SAB)	PM & PO in cooperation with SC	mid March 2011	■	■	■											
		Setting up DIKTAS National Execution Units (NEUs), including nomination and selection of country experts	PM & PO in cooperation with project NFPs	end April 2011	■	■	■											
		Organizing the first SC Meeting	PM & PO in cooperation with SC and Project Advisor (PA)	mid April 2011	■	■	■											
		Staffing and equipping the PCU	PM & PO in cooperation with the hosting agency	mid April 2011	■	■	■	■										
		Monitoring and Reporting			■							■				■		■
		Overall project management			■	■	■	■	■	■	■	■	■	■	■	■	■	■
<b>Outcome 1: COUNTRIES RECOGNIZE THE KARST AQUIFER SYSTEM AS A SHARED AND HIGHLY VULNERABLE RESOURCE, AND AGREE TO TAKE STEPS TO DEAL WITH ITS TRANSBOUNDARY IMPLICATIONS.</b>	Output 1: Transboundary Diagnostic Analysis (TDA) prepared and approved by countries	Breaked up in five main activities (see below)	DIKTAS Project Team with steering and supporting structure	end 2012														
		1. Regional hydrogeological characterisation	Working Group (WG) Hydrogeology	mid 2012			■	■	■	■	■	■	■	■	■	■	■	■
		2. Regional environmental and socio-economical assessment	WG Environment & socio-economics	mid 2012			■	■	■	■	■	■	■	■	■	■	■	■
		3. Regional assessment of legal and institutional frameworks and policies	WG Legal and Institutional Framework	mid 2012			■	■	■	■	■	■	■	■	■	■	■	■
		4. Synthesis and finalization of the Transboundary Diagnostic Analysis	<i>no activities foreseen in 2011</i>															
		5. Testing the TDA results at the local scale	<i>no activities foreseen in 2011</i>															
	Output 2: Baseline conditions identified, and environmental status indicators agreed upon and adopted	<i>no activities foreseen in 2011</i>																

Table 1: DIKTAS annual Work Plan 2011 (cont.)

	Outputs	Activity	Responsibility	Expected completion	2011												
					Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	
<b>Outcome 2:</b> THE STRENGTHENED COLLECTIVE KNOWLEDGE AND COORDINATION AMONG DEVELOPMENT PLANS OF COUNTRIES, PROJECTS, AGENCIES AND DONORS, IMPROVES SUSTAINABILITY OF THE RESOURCE.	Output 3: A multi-country consultative body (CIE) established and operational.	Drafting ToR for the CIE, adoption of ToR by the SC, preparation of the first CIE meeting (in January 2012)	PM & PO, SC, NFPs	end January 2012													
	Output 4: Environmental quality targets adopted and a joint harmonized monitoring program of the environmental status established	<i>no activities foreseen in 2011</i>															
	Output 5: A mechanism for coordination and exchanges with other relevant projects and initiatives, including the GEF supported Mediterranean Partnership and others, established and operational	Prepare draft mechanism for coordination and exchanges with other relevant projects and initiatives, based on consultations with relevant stakeholders	PCU - PM, Stakeholders Participation WG and NFPs	end January 2012													
<b>Outcome 3:</b> POLITICAL COMMITMENT REACHED AMONG COUNTRIES ON IMPLEMENTING PRIORITY LEGAL, INSTITUTIONAL AND POLICY REFORMS FOR THE PROTECTION AND EQUITABLE UTILIZATION OF THE KARST AQUIFER SYSTEM.	Output 6: Countries establish ad hoc inter-ministerial committees focused on harmonization of existing frameworks, and on priority reforms. The Committees meet regularly	A ToR for the NICs will be drafted, relevant ministries at national level identified and mechanisms to support the work of NICs put in place	DIKTAS National Focal Points	end March 2012													
	Output 7: A Strategic Action Program (SAP) for the DIKTAS, and National Implementation Plans, elaborated and adopted by the country at high ministerial level	<i>no activities foreseen in 2010/2011 (note: it is foreseen to finalize output 7 by 12/2013, in order to allow sufficient time for early SAP implementation)</i>															
	Output 8: A partnership conference consolidates international support for the implementation of the priority actions	<i>no activities foreseen in 2010/2011 (note: it is foreseen to organize the partnership conference upon termination of output 7 by 03/2014)</i>															
<b>Outcome 4:</b> LONG TERM SUSTAINABILITY OF ACHIEVEMENTS ENHANCED THROUGH PUBLIC AND POLITICAL AWARENESS CAMPAIGNS, STAKEHOLDER INVOLVEMENT AND REPLICATION MECHANISMS.	Output 9: Stakeholders Analysis, and information and communication activities to highlight project's progress and achievements and support stakeholders involvement	2011: Stakeholders Analysis, Information & Communication Plan ready and under execution (continuous activity until end of the project)	Stakeholders Participation WG & PM	end 2014													
	Output 10: Targeted capacity building programs to encourage replication of new practices, behaviors and techniques	It is expected that most of capacity building activities will be performed later in the project. Some TDA related activities might take place in 2011.	Stakeholders Participation WG & PM	end 2014													
	Output 11: Participation in IW:LEARN activities, and population and update of the website/portal.	Preparation of proposal for DIKTAS involvement and sites to be visited during Sixth Biennial GEF International Waters Conference (IWC6)	Stakeholders Participation WG + PM	October 2011													

## 5. STRATEGIC RESULTS FRAMEWORK

The content of the project SRF as defined in the DIKTAS project document (Section II) has remained practically unchanged, only some target dates are adjusted due to initial project delay in the Inception Phase. Also some activities will start earlier (and be completed earlier) than originally suggested (see chapter 4, Table 1). The SRF is presented below.

	<b>Objectively Verifiable Indicators</b>				
<b>Goal</b>	<i>Improve the understanding of the transboundary water resources of the Dinaric Karst Aquifer System, facilitate their equitable and sustainable utilization, and protect the unique groundwater dependent ecosystems that characterize the Dinaric Karst region of the Balkan peninsula.</i>				
<b>Objectives/Outcomes</b>	<b>Indicator (Process)</b>	<b>Baseline</b>	<b>Target</b>	<b>Sources of verification</b>	<b>Assumptions</b>
<b>Outcome 1:</b> Countries recognize the Karst Aquifer System as a shared and highly vulnerable resource, and agree to take steps to deal with its transboundary implications.	<b>1.</b> The Transboundary Diagnostic Analysis of the DIKTAS completed and approved indicating regional agreement on priority TB issues, immediate and root causes.	Incomplete biophysical and socio-economic information on the aquifer; Inadequate understanding of its shared nature and of the transboundary problems and their socio-economic root causes and impacts.	Approval of TDA by national, inter-ministerial committees by the end of Q4/2012.	Final TDA document. Reports of analyses undertaken as part of the TDA. Meeting minutes and record of approval by inter-ministerial committees. PIRs, midterm and final evaluations. Information available on official websites at UNDP, project website, and national government websites.	Cooperation between multiple technical and scientific working groups is maintained throughout the TDA process. National-level budgets for participating ministries are not significantly reduced. Countries and data owners agree to contribute data and information, and to make data freely available.
	<b>2.</b> Baseline conditions identified, and environmental status indicators agreed upon and adopted.	Fragmented and non-harmonized information on the DIKTAS environmental state as a whole.	By Q1/2013 a Report on Baseline Environmental Conditions containing agreed Environmental Status Indicators is approved by the National Inter-ministerial Committees and published	Report on Baseline Environmental Conditions.  See Above	Informed consensus on indicators is strengthened by joint scientific fact-finding and action of Science Advisory Panel.  Simple identified indicators will be feasible given the technology available in the countries.
<b>Outcome 2:</b> The strengthened collective knowledge and coordination among development plans and countries, agencies and donors improves sustainability of the	<b>3.</b> A multi-country consultative body established and operational.	Information and knowledge on karst problems and management responses are fragmented and not sufficiently shared among the countries.	The consultative body established by Q1 2012. At least three meeting held during the project execution	Founding document available including the consultation protocol.  The meeting reports (containing the concrete sets of recommendations) produced and	Willingness of participating countries to participate and actively engage in work of the consultative body

resource		There is lack of coordination among planned and on-going activities related to transboundary aquifers		distributed to stakeholders on all levels.	
	4. Environmental quality targets defined and adopted. A common monitoring program for harmonization of quality targets established.	Environmental quality targets differ from country to country hindering establishment of consistent environmental targets for transboundary aquifers	Proposal for harmonized monitoring program developed by the project team by the end of 2012, and approved by inter-ministerial committee by the end of 2013. The multi-country consultative body promotes national commitment on implementation.	Proposal document of the project team  Approval document of the inter-ministerial committees  Meeting reports of the multi-country consultative body.	Country specialists reach a common view on environmental quality targets  Political willingness for harmonization of environmental quality targets
	5. A mechanism for coordination and exchanges with other relevant projects and initiatives, including the GEF supported Mediterranean Partnership and others, established and operational	Lack of coordination among relevant ongoing projects causes duplication of efforts, and prevents synergies.	Coordination Mechanism established by SC in Q1 2012.  First Coordination Meeting held within 2012.	Report of the relevant SC meeting.  Report of the Coordination Meeting.	Agencies and management responsible for ongoing projects are willing to participate and contribute.
<b>Outcome 3:</b> Political commitment reached among the countries on implementing priority legal, institutional and policy reforms for the protection and equitable utilization of the Karst Aquifer System	6. Ad hoc inter-ministerial committees focused on harmonization of existing frameworks, and on priority reforms established in each project Country.	Weak or absent coordination among relevant ministries is hindering action and transboundary cooperation.	Inter-ministerial committees established by Q1 2012.	Founding documents available  First meetings held and meeting reports available.	Willingness for cooperation among the relevant ministries.
	7. A Strategic Action Program (SAP) for the DIKTAS, and 4 National Implementation Plans, elaborated and adopted by the countries at high ministerial level	Transboundary concerns related to the sustainability of the karst groundwater resources are not prioritized or addressed.	DIKTAS SAP endorsed at ministerial level in the four countries by the end of 2013.  National Implementation Plans adopted in each participating country by Q3 2014	Endorsed SAP Document.  4 National Implementation Plans documents.	Countries willing to engage and commit to coordinated actions including reforms and investments.



	<b>8.</b> A partnership conference aimed at consolidating international support for the implementation of the SAP is held with broad participation of the donor community.	Fragmented support of donors and lack of overall framework for coordinated development assistance on transboundary groundwater issues.	Conference held by Q2 2014.	Final declaration of Partnership Conference.	International donors are willing to engage in a coordinated action in support of SAP implementation
<b>Outcome 4:</b> Long term sustainability of achievements enhanced through public and political awareness campaigns, stakeholder involvement and replication mechanisms	<b>9.</b> Number of media events to highlight project's progress and achievements, implemented.	Public awareness about the transboundary nature and vulnerability of the Dinaric Karst System is scarce or absent.  The DIKTAS project, its objectives and achievements is little known by many stakeholders	At least four media events during the project implementation period	Media events have been recorded and are digitally available	National media in the project countries are willing to support the project's objectives and report on the DIKTAS progress and achievements
	<b>10.</b> Number of targeted capacity building programs to encourage replication of new practices, behaviours and techniques, implemented.	Limited capacities and lack of awareness in the project countries pose threats to resource sustainability.	At least three capacity building/training sessions have taken place, focused on (i) legal issues and harmonization of water related legislation; (ii) advanced training on Geographical Information Systems (GIS) and Mapping, and (iii) land use practices in karst areas.	Report/documentation of the training sessions.	Countries recognize importance of improved capacities and assist in the organization of training sessions.
	<b>11.</b> Number of events, contributions to IW LEARN activities.	Expertise on karst issues existing in the region is not part of, or shared with a broader community of practice.	Project website following IW LEARN standards established by Q1 2011. Project participates to IW Biennial Conferences.	Project website operational and frequently visited. Poster and publications prepared for IW Conferences.	Stakeholders in the region engage in distance learning and other ICT activities promoted through the website.

## 6. CONCLUSIONS

During the Inception Phase of the DIKTAS project no major changes influencing the planned implementation of project activities were identified. The project outcomes, outputs, and activities as defined in the Project Document, remain entirely valid and no changes need to be applied. Considering a slight overall project delay due to the extended inception phase the overall time schedule for the implementation of activities will be shifted accordingly. A 6 months cost-neutral extension of the project will be requested.

The objectives of the project Inception Workshop have been fully achieved: relevant and updated information was exchanged, commitment to the project reconfirmed and agreements necessary for establishment of the project team, supporting structures and procedures were made.

The Annual Work Plan for 2011 has been prepared, taking in consideration the Inception Phase and conclusions of the Inception Workshop. The Annual Work Plan is an elaboration of activities for the first project year, as described in the Project Document. No major changes have been made with respect to the Project Plan and the Strategic Results Framework (except of a slight overall project delay). According to the plan, some activities will start earlier and/or last less than originally (in the Project Document) suggested. The intention is to speed up the project execution activities.



## **Annexes**

**Annex 1: UNDP “Atlas” Budget**

**Annex 2: Terms of Reference for National Consultants**

**Annex 3: Project Inception Workshop: Agenda and Participant List**

**Annex 4: DIKTAS flyer**

## Annex1: UNDP Atlas Budget

The project budget (the GEF-fund) for the first project year is the same as presented in the project document (\$620,500). The costs of the Inception Workshop will be subtracted from this budget.

<b>Award ID:</b>	00058507
<b>Award Title:</b>	PIMS 4056 Regional IW FSP "Protection and Sustainable Use of the Dinaric Karst Transboundary Aquifer System (DIKTAS)
<b>Business Unit:</b>	HRV10
<b>Project Title:</b>	PIMS 4056 Regional IW FSP "Protection and Sustainable Use of the Dinaric Karst Transboundary Aquifer System (DIKTAS)
<b>Project ID: PIMS no. 4056</b>	00072696
<b>Implementing Partner (Executing Agency)</b>	UNESCO-IHP

GEF Outcome/Atlas Activity	Responsible Party/Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	See Budget Note:
<b>OUTCOME 1:</b> Countries recognize the Karst Aquifer System as a shared and highly vulnerable resource, and agree to take steps to deal with its transboundary implications.	<b>UNESCO-IHP</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	\$124,000	\$124,000	\$59,000	\$39,000	\$346,000	<b>1</b>
				71300	Local Consultants	\$160,000	\$160,000	\$95,000	\$65,000	\$480,000	
				71600	Travel	\$17,500	\$17,500	\$17,500	\$17,500	\$70,000	
				74200	Equipment	\$15,000	\$15,000	\$0	\$0	\$30,000	
				74500	Miscellaneous	\$5,000	\$5,000	\$5,000	\$5,000	\$20,000	
					<b>Total Outcome 1</b>	<b>\$321,500</b>	<b>\$321,500</b>	<b>\$176,500</b>	<b>\$126,500</b>	<b>\$946,000</b>	
<b>OUTCOME 2:</b> The strengthened collective knowledge and coordination among development plans and countries, agencies and donors improves sustainability of the resource	<b>UNESCO-IHP</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	\$30,000	\$20,000	\$10,000	\$10,000	\$70,000	<b>2</b>
				71300	Local Consultants	\$17,500	\$17,500	\$17,500	\$17,500	\$70,000	
				71600	Travel	\$10,000	\$60,000	\$10,000	\$10,000	\$90,000	
				74200	Equipment	\$5,000	\$5,000	\$5,000	\$5,000	\$20,000	
				74500	Miscellaneous	\$4,000	\$4,000	\$4,000	\$4,000	\$16,000	
					<b>Total Outcome 2</b>	<b>\$66,500</b>	<b>\$106,500</b>	<b>\$46,500</b>	<b>\$46,500</b>	<b>\$266,000</b>	

<b>OUTCOME 3:</b> Political commitment reached among the countries on implementing priority legal, institutional and policy reforms for the protection and equitable utilization of the Karst Aquifer System	<b>UNESCO-IHP</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	\$34,000	\$34,000	\$34,000	\$34,000	\$136,000	<b>3</b>
				71300	Local Consultants	\$20,000	\$20,000	\$20,000	\$20,000	\$80,000	
				71600	Travel	\$20,000	\$20,000	\$20,000	\$20,000	\$80,000	
				74500	Miscellaneous	\$5,000	\$5,000	\$5,000	\$5,000	\$20,000	
					<b>Total Outcome 3</b>	<b>\$79,000</b>	<b>\$79,000</b>	<b>\$79,000</b>	<b>\$79,000</b>	<b>\$316,000</b>	
<b>OUTCOME 4:</b> Long term sustainability of achievements enhanced through public and political awareness campaigns, stakeholder involvement and replication mechanisms	<b>UNESCO-IHP</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	\$29,000	\$34,000	\$34,000	\$34,000	\$131,000	<b>4</b>
				71300	Local Consultants	\$25,000	\$25,000	\$25,000	\$25,000	\$100,000	
				71600	Travel	\$17,500	\$17,500	\$17,500	\$17,500	\$70,000	
				74200	Audio Visual&Print Prod Costs	\$20,000	\$20,000	\$20,000	\$25,000	\$85,000	
				74500	Miscellaneous	\$8,000	\$8,000	\$7,000	\$7,000	\$30,000	
					<b>Total Outcome 4</b>	<b>\$99,500</b>	<b>\$104,500</b>	<b>\$103,500</b>	<b>\$108,500</b>	<b>\$416,000</b>	
<b>PROJECT MANAGEMENT</b>	<b>UNESCO-IHP</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	\$40,000	\$40,000	\$40,000	\$40,000	\$160,000	<b>5</b>
				71300	Local Consultants	\$4,000	\$4,000	\$4,000	\$4,000	\$16,000	
				71600	Travel	\$10,000	\$10,000	\$10,000	\$10,000	\$40,000	
					<b>Total Management</b>	<b>\$54,000</b>	<b>\$54,000</b>	<b>\$54,000</b>	<b>\$54,000</b>	<b>\$216,000</b>	
<b>PROJECT TOTAL</b>						<b>\$620,500</b>	<b>\$665,500</b>	<b>\$459,500</b>	<b>\$414,500</b>	<b>\$2,160,000</b>	

## Annex2: TOR for Selection of Consultants

### Terms of Reference (ToR) for Selection of National Consultant: Hydrogeology

#### Project Execution Phase

(Selection of one consultant on Hydrogeology in each of the core-project country: Albania, Bosnia-Herzegovina, Croatia and Montenegro),

#### Global Environment Facility Full Size Project: *Protection and Sustainable Use of the Dinaric Karst Aquifer System*

Implementing Agency: UNDP

Executing Agency: UNESCO-IHP

#### Project Objective:

The project is the first ever attempted globally to introduce sustainable integrated management principles in a transboundary karst freshwater aquifer of the magnitude of the Dinaric Karst System.

At the global level the project aims at focusing the attention of the international community on the huge but vulnerable water resources contained in karst aquifers (carbonate rock formations), which are widespread globally, but poorly understood. The Dinaric Karst Aquifer System, shared by several countries and one of the world's largest, has been identified as an ideal opportunity for applying new and integrated management approaches to these unique freshwater resources and ecosystems.

At the regional level the project's objectives are to (i) facilitate the equitable and sustainable utilization of the transboundary water resources of the Dinaric Karst Aquifer System, and (ii) protect the unique groundwater dependent ecosystems that characterize the Dinaric Karst region of the Balkan Peninsula.

These objectives are expected to be achieved through a concerted multi-country effort involving improvement in scientific understanding, the building of political consensus around key reforms and new policies, the enhanced coordination among countries, donors, projects and agencies, and the consolidation of national and international support.

#### Terms of Reference (ToR)

National Consultant in Hydrogeology (NC-HY) will be a member of a National Execution Unit (NEU) composed of the National Focal Point and national consultants.

NC-HY will conduct a DIKTAS regional hydrogeological characterisation together with other national and international consultants organised in the DIKTAS Working Group Hydrogeology. The content of DIKTAS regional hydrogeological characterisation is briefly described below.

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#### DIKTAS regional hydrogeological characterization

The hydrogeological characterization carried out in Albania, Bosnia-Herzegovina, Croatia and Montenegro during the project preparation phase will be used as basis for the regional hydrogeological characterization in this phase of the project. The main activity will be the regional hydrogeological harmonization. It will include at least the harmonization of karst regions across the four core-project countries. Harmonisation of the wider project area (from Greece to Italy) is desirable but subject to data availability and required harmonization effort.

This task will be carried out by the Work Group Hydrogeology that will be set up at the beginning of 2011 (see also about the execution modalities further in this chapter). The group needs to agree about (and write down) the harmonization procedure (including the principles, scale, parameters, etc.). A draft map should be produced a.s.a.p. and probably at the scale of 1: 50.000. This will be a complex task and the sheets of the Geological Map of Yugoslavia (available DIKTAS Inception Report – Annexes

for Bosnia and Herzegovina, Croatia and Montenegro) seem to be the best starting point. For the harmonisation between Albania and Montenegro, geological and hydrogeological map will be used (from Albanian side).

Setting up a project GIS database at the PCU and the technical implementation of agreements and harmonisation outcomes in the GIS format will be an important part of this activity.

The main result of the activity will be a regional hydrogeological map, for the project purposes denoted as Map of the Dinaric Karst Aquifer System. The map will be accompanied by a (commonly agreed) legend and the document describing the implemented harmonization procedure. The hydrogeological characterization will include both groundwater quantity and quality characterization. The results of the characterization will be used as basis for various thematic maps during the environmental and socio-economical assessment. Therefore, the main portion of hydrogeological characterization should preferably be conducted in 2011 and the characterisation rounded off before July 2012.

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Besides conducting the regional hydrogeological characterisation, NC-HY will also be involved in other DIKTAS activities where a hydrogeological contribution might be required. Substantial hydrogeological contribution will be most likely required in some other DIKTAS TDA analysis, namely: regional environmental assessment, TDA synthesis and finalization and TDA testing on the local scale.

NC-HY will work under coordination of the coordinator of the Working Group Hydrogeology in accordance with the DIKTAS Project Document and annual Project Plans and Budgets. Working Groups will be supervised and coordinated by the DIKTAS Project Coordinator.

NC-HY shall:

- Perform all the necessary activities required for accomplishment of the regional hydrogeological analysis according to DIKTAS project documents.
- Contribute to all other project activities where hydrogeological knowledge is required.
- Deliver concrete products of his/her engagement, such as reports, maps, presentations, papers, posters, etc.
- Accomplish activities successfully within the periods specified in the project documents and/or agreed by the Project Execution Team.

NC-HY will be contracted for the period of two years (2011-2012), on a part-time basis (a number of hours per week will be separately agreed). Upon evaluation of the TDA results, a second contracting phase might be undertaken, also for the period of two years (2013-2014).



Terms of Reference (ToR)  
for  
Selection of National Consultant: Environment and Socio-Economics

Project Execution Phase

(Selection of one consultant on Hydrogeology in each of the core-project country: Albania, Bosnia-Herzegovina, Croatia and Montenegro),

Global Environment Facility Full Size Project:  
*Protection and Sustainable Use of the Dinaric Karst Aquifer System*

Implementing Agency: UNDP

Executing Agency: UNESCO-IHP

**Project Objective:**

The project is the first ever attempted globally to introduce sustainable integrated management principles in a transboundary karst freshwater aquifer of the magnitude of the Dinaric Karst System.

At the global level the project aims at focusing the attention of the international community on the huge but vulnerable water resources contained in karst aquifers (carbonate rock formations), which are widespread globally, but poorly understood. The Dinaric Karst Aquifer System, shared by several countries and one of the world's largest, has been identified as an ideal opportunity for applying new and integrated management approaches to these unique freshwater resources and ecosystems.

At the regional level the project's objectives are to (i) facilitate the equitable and sustainable utilization of the transboundary water resources of the Dinaric Karst Aquifer System, and (ii) protect the unique groundwater dependent ecosystems that characterize the Dinaric Karst region of the Balkan Peninsula.

These objectives are expected to be achieved through a concerted multi-country effort involving improvement in scientific understanding, the building of political consensus around key reforms and new policies, the enhanced coordination among countries, donors, projects and agencies, and the consolidation of national and international support.

Terms of Reference (ToR)

National Consultant in Environment and Socio-Economics (NC-ESE) will be a member of a National Execution Unit (NEU) composed of the National Focal Point and national consultants.

NC-ESE will conduct a DIKTAS regional environmental and socio-economical assessment together with other national and international consultants organised in the DIKTAS Working Group Environment and Socio-Economics. The content of DIKTAS regional environmental and socio-economical assessment is briefly described below.

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DIKTAS regional environmental and socio-economical assessment

DIKTAS regional environmental and socio-economical assessment will take in consideration both natural conditions as well as anthropogenic impact (such as population and economic activities). The assessment will result in a number of thematic regional maps showing (combination of) various environmental and socio-economic parameters. Data on (point, line, distributed) sources of pollution, population distribution, ecosystems, existing and planned infrastructure and human activities (reservoirs, tunnels, industry, waste disposal facilities, agricultural activities) and similar, will be collected, processed and presented in the framework of this activity. Both, environmental and socio-economical assessment will have a regional character and will be limited to possible impact on Dinaric karst groundwaters, and in particular to transboundary impact. This part of the TDA will be conducted by the Working Group Environment and Socio-Economics during 2011 and the first half of 2012.

---

Besides conducting the regional environmental and socio-economical assessment, NC-ESE will also be involved in other DIKTAS activities where an environmental and DIKTAS Inception Report – Annexes

socio-economical knowledge might be required. NC-ECE contribution will be crucial for linking the technical knowledge (mainly hydrogeology) with the policy and institutional setting. Therefore, NC-ECE substantial contribution will be required in the activity TDA synthesis and finalization.

NC-ECE will work under coordination of the coordinator of the Working Group Hydrogeology in accordance with the DIKTAS Project Document and annual Project Plans and Budgets. Working Groups will be supervised and coordinated by the DIKTAS Project Coordinator.

NC-ECE shall:

- Perform all the necessary activities required for accomplishment of the regional environmental and socio-economical assessment according to DIKTAS project documents.
- Contribute to all other project activities where knowledge on environment and socio-economics is required.
- Deliver concrete products of his/her engagement, such as reports, maps, presentations, papers, posters, etc.
- Accomplish activities successfully within the periods specified in the project documents and/or agreed by the Project Execution Team.

NC-ECE will be contracted for the period of two years (2011-2012), on a part-time basis (a number of hours per week will be separately agreed). Upon evaluation of the TDA results, a second contracting phase might be undertaken, also for the period of two years (2013-2014).

Terms of Reference (ToR)  
for

Selection of National Consultant: Policy and Legal and Institutional Frameworks

Project Execution Phase

(Selection of one consultant on Policy and Legal and Institutional Frameworks in each of the core-project country: Albania, Bosnia-Herzegovina, Croatia and Montenegro),

Global Environment Facility Full Size Project:  
*Protection and Sustainable Use of the Dinaric Karst Aquifer System*

Implementing Agency: UNDP

Executing Agency: UNESCO-IHP

**Project Objective:**

The project is the first ever attempted globally to introduce sustainable integrated management principles in a transboundary karst freshwater aquifer of the magnitude of the Dinaric Karst System.

At the global level the project aims at focusing the attention of the international community on the huge but vulnerable water resources contained in karst aquifers (carbonate rock formations), which are widespread globally, but poorly understood. The Dinaric Karst Aquifer System, shared by several countries and one of the world's largest, has been identified as an ideal opportunity for applying new and integrated management approaches to these unique freshwater resources and ecosystems.

At the regional level the project's objectives are to (i) facilitate the equitable and sustainable utilization of the transboundary water resources of the Dinaric Karst Aquifer System, and (ii) protect the unique groundwater dependent ecosystems that characterize the Dinaric Karst region of the Balkan Peninsula.

These objectives are expected to be achieved through a concerted multi-country effort involving improvement in scientific understanding, the building of political consensus around key reforms and new policies, the enhanced coordination among countries, donors, projects and agencies, and the consolidation of national and international support.

Terms of Reference (ToR)

National Consultant in Policy and Legal and Institutional Frameworks (NC-PLI) will be a member of a National Execution Unit (NEU) composed of the National Focal Point and national consultants.

NC-PLI will conduct a DIKTAS regional policy, legal and institutional characterisation together with other national and international consultants organised in the DIKTAS Working Group Policy and Legal and Institutional Frameworks. The content of DIKTAS regional assessment of policies and legal and institutional frameworks is briefly described below.

---

Regional assessment of policies and legal and institutional frameworks

This activity will consist of an estimation (consolidated at the regional level) of present and foreseen water demand, and of a critical review of the existing policy, legal and institutional conditions related to water and land use management. This work will build on the results achieved at the national level during the PPG (see the Project Document, Annex 1: Table on Legal and institutional frameworks and policies), and will highlight the threats posed to the resource by excessive or conflicting demands and water uses, and by inadequate, missing, non-harmonized policy and institutional frameworks. This part of the regional assessment will yield the information necessary for proposals for harmonization of policies required for sound transboundary water management (later in the project). The activity will be carried out by the Working Group Legal and Institutional Framework, starting in 2011 and finishing in 2012.

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Besides conducting the regional assessment of policies and legal and institutional frameworks, NC-PLI will also be involved in other DIKTAS activities where knowledge on policies and on assessment of policies and/or legal and institutional frameworks might be required. Substantial NC-PLI contribution will be most likely required in TDA synthesis and finalization and TDA testing on the local scale.

NC-PLI will work under coordination of the coordinator of the Working Group in accordance with the DIKTAS Project Document and annual Project Plans and Budgets. Working Groups will be supervised and coordinated by the DIKTAS Project Coordinator.

NC-PLI shall:

- Perform all the necessary activities required for accomplishment of the regional assessment of policies and legal and institutional frameworks according to DIKTAS project documents.
- Contribute to all other project activities where knowledge on policies and on assessment of policies and/or legal and institutional frameworks is required.
- Deliver concrete products of his/her engagement, such as reports, maps, presentations, papers, posters, etc.
- Accomplish activities successfully within the periods specified in the project documents and/or agreed by the Project Execution Team.

NC-PLI will be contracted for the period of two years (2011-2012), on a part-time basis (a number of hours per week will be separately agreed). Upon evaluation of the TDA results, a second contracting phase might be undertaken, also for the period of two years (2013-2014).

Terms of Reference (ToR)  
for  
Selection of National Consultant: Stakeholder Participation

Project Execution Phase

(Selection of one consultant on Stakeholder Participation in each of the core-project country: Albania, Bosnia-Herzegovina, Croatia and Montenegro),

Global Environment Facility Full Size Project:  
*Protection and Sustainable Use of the Dinaric Karst Aquifer System*

Implementing Agency: UNDP

Executing Agency: UNESCO-IHP

**Project Objective:**

The project is the first ever attempted globally to introduce sustainable integrated management principles in a transboundary karst freshwater aquifer of the magnitude of the Dinaric Karst System.

At the global level the project aims at focusing the attention of the international community on the huge but vulnerable water resources contained in karst aquifers (carbonate rock formations), which are widespread globally, but poorly understood. The Dinaric Karst Aquifer System, shared by several countries and one of the world's largest, has been identified as an ideal opportunity for applying new and integrated management approaches to these unique freshwater resources and ecosystems.

At the regional level the project's objectives are to (i) facilitate the equitable and sustainable utilization of the transboundary water resources of the Dinaric Karst Aquifer System, and (ii) protect the unique groundwater dependent ecosystems that characterize the Dinaric Karst region of the Balkan Peninsula.

These objectives are expected to be achieved through a concerted multi-country effort involving improvement in scientific understanding, the building of political consensus around key reforms and new policies, the enhanced coordination among countries, donors, projects and agencies, and the consolidation of national and international support.

Terms of Reference (ToR)

National Consultant in Stakeholder Participation (NC-SP) will be a member of a National Execution Unit (NEU) composed of the National Focal Point and national consultants.

NC-SP will carry out the communication, dissemination and replication activities (the project component 4) together with other national and international consultants organised in the DIKTAS Working Group Stakeholder Participation. The content of the DIKTAS project Component 4 is briefly described below.

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DIKTAS project communication, dissemination and replication activities (component 4)

The communication, dissemination and replication activities will be executed throughout the project, having the key purpose of raising awareness about the project topics and of involving stakeholders in the project activities. This will lead to better project results and increase their sustainability and replication possibilities.

The Component 4 will produce three outputs (9-11), namely:

- Output 9. Stakeholder Analysis, and information and communication activities to highlight project's progress and achievements and support stakeholder's involvement.
  - Output 10. Targeted capacity building programs to encourage replication of new practices, behaviours and techniques.
  - Output 11. Participation to IW LEARN activities and project dissemination activities
-

The main activity in the first project year will be the stakeholder analysis. NC-SP will contribute to identification of stakeholders and their relations with the projects. She/he will conduct interviews and organise meetings on national and international level that are required to perform the SA. NC-SP will participate in revision of the SPPS (Stakeholders and Public Participation Strategy) and in the writing of a Strategic Information Communication Plan (a.s.a.p. in 2011).

The second main activity in the first project year will be GEF IW biannual conferences to be held at the Adriatic Coast (probably in Dubrovnik). DIKTAS will be one of the four hosting projects. NC-SP will participate in the preparation of the hosting project session (information & dissemination/promotion material) and in organisation of conference (and in particular the field trips).

NC-SP will work under coordination of the coordinator of the Working Group Stakeholder Participation in accordance with the DIKTAS Project Document and annual Project Plans and Budgets. Working Groups will be supervised and coordinated by the DIKTAS Project Coordinator.

NC-SP shall:

- Perform all the necessary activities required for accomplishment of the stakeholder analysis and for a broad stakeholder's involvement.
- Contribute to all other project activities where knowledge on stakeholders required is and/or where communication, capacity building or dissemination of project results might be needed.
- Deliver concrete products of his/her engagement, such as reports, maps, presentations, papers, posters, etc.
- Accomplish activities successfully within the periods specified in the project documents and/or agreed by the Project Execution Team.

NC-SP will be contracted for the period of two years (2011-2012), on a part-time basis (a number of hours per week will be separately agreed). Upon evaluation of the results achieved, a second contracting phase might be undertaken, also for the period of two years (2013-2014).

## Annex3: Inception Workshop Agenda and the Participant List



GEF-UNDP-UNESCO Regional Project

### ***Protection and Sustainable Use of the Dinaric Karst Aquifer System (DIKTAS)***

Full Size Project Inception Workshop

10-12 November 2010, Trebinje, Bosnia and Herzegovina  
Hotel Platani, Cvijetni trg 1

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#### Wednesday, 10 November 2010

- 9:30            Opening: welcome addresses of Government of Bosnia & Herzegovina / UNDP / UNESCO
- Ministry of Agriculture, Forestry and Water Management of Republic of Srpska – *Mihajlo Stevanovic, Deputy Minister*
  - UNDP – *Vladimir Mamaev*
  - UNESCO – *Holger Treidel*
- 10:00            DIKTAS project outline: an overview of the project history and motivation, structure, activities, time schedule, etc, including an overview of workshop structure and introduction of participants) – *Neno Kukuric*

*Coffee Break 10:40 -11:00*

- 11:00            Neretva/Trebinjica project (experiences, possibilities for cooperation) - *Miroslav Steinbauer*

- 11:30 Lake Skadar/ Shkoder project (experiences, possibilities for cooperation) – *Viktor Subotic*
- 11:45 Discussion/questions/suggestions about experiences and possible cooperation with on-going WB/GEF regional projects

*Lunch 12:30-14:00*

- 14:00 Results of preliminary TDA analysis: Hydrogeological context (including 15-20 minutes of discussion) – *Zeljko Pekas & Boban Jolovic*
- 14:45 Results of preliminary TDA analysis: Institutional, sectoral and policy context (including 15-20 minutes of discussion) – *Selma Cengic & Zoran Nakic*

*Coffee Break 15:30-15:50*

- 15:50 Elaboration of the project components: *Holger Treidel*, introduction and moderation
- Component 1: Improving the understanding of the resource and of its environmental status – (*panellists Arben Pambuku, Boban Jolovic, Zeljko Pekas, Novak Cadjenovic, Selma Cengic, Zoran Nakic*)
  - Component 2: Establishing cooperation among the countries sharing the aquifer – (*panellists Raya Stephan, Novak Cadjenovic, Selma Cengic*)
  - Component 3: Facilitating harmonisation of policies and priority reforms – (*panellists Raya Stephan, Novak Cadjenovic, Selma Cengic*)
  - Component 4: Improving the understanding of the resource and of its environmental status (*panellists Dimitris Faloutso, Philippe Pypaert*)
- 16:50 DIKTAS project partners: Scope of activities and intended contributions to DIKTAS (*Karst Centre Slovenia, International Research Centre on Karst, Guilin (China), Edwards Aquifer Authority (USA), IAH Karst Commission, University of Athens, UNESCO Chair – INWEB Thessaloniki, BRGM, Competence Pool Water (Austria), National Research Council (Italy)*)

*Workshop Dinner 19:00*

#### Thursday, 11 November 2010

- 9:00 The Role of DIKTAS Implementing Agency (UNDP): guidance from the UNDP (Implementing Agency) on the process and procedures of GEF Full Size Project implementation. – *Vladimir Mamaev*



9:30 The role of DIKTAS Executing Agency (UNESCO-IHP) and PCU guidance from the UNESCO (Executing Agency) on the process and procedures of GEF Full Size Project execution. – *Holger Treidel & Neno Kukuric*

10:00 The project Steering Committee and the Scientific Advisory Board: The roles and composition.

*Coffee Break 10:15 -10:35*

10:35 Development of an Annual Work Plan: emphasis will be on the components 1 and 4 during the first year of project implementation

*Lunch 12:30-13:30*

13:30 Field trip: including a visit to the Grancarevo dam site, the Ombla spring and the old city centre of Dubrovnik. Return to the hotel around 19.30 (please take your passport with you).

#### Friday, 12 November 2010

9:00 Development of an Annual Work Plan: emphasis will be on the components 1 and 4 during the first project year.

*Coffee Break 10:15 -10:45*

10:45 Reconvene in plenum: Short presentation and discussion of outcomes of the working groups

*Lunch 12:30-13:30*

13.30 Workshop conclusions and agreements

15.00 Closure

## Participant List

	Name	Organisation	E-mail	Tel. number
1	Arben Pambuku	Geological Survey, Albania	urtesi2001@yahoo.com	385 672 083 197
2	Andrej Mihevc	Karst Centre, Slovenia	<a href="mailto:mihevc@zrc-sazu.si">mihevc@zrc-sazu.si</a>	38 657 001 900
3	Bartolomeo Andreo Navarro	University of Malaga, Spain	andreo@uma.es	34952132004
4	Biljana Rajic	Ministry of Foreign Trade and Economic Relations B&H	<a href="mailto:biljana.rajic@mvteo.gov.ba">biljana.rajic@mvteo.gov.ba</a>	38765521695
5	Boban Jolovic	Geological Survey RS, B&H	bjolovic@yahoo.com	38765747887
6	Branko Colic	Water Agency River Basin Trebisnjica, RS, B&H	<a href="mailto:trebinje@vodeherc.org">trebinje@vodeherc.org</a>	
7	Cao Jianhua	Int. Research Centre on Karst, China	jhcao@mail.karst.edu.cn	867 735 837 846
8	Damir Mrdjen	Agency for Adriatic Watershed, FBA, B&H	<a href="mailto:isliv-01@voda.tel.net.ba">isliv-01@voda.tel.net.ba</a>	387 36 397881
9	Darko Rajhenbah	Ministry of Agriculture, Forestry and Water Management, Croatia	darko.rajhenbah@voda.hr	385 992 116 764
10	Didier Pennequin	BGRM, France	d.pennequin@brgm.fr	33 238 643 428
11	Dimitris Faloutsos	GWP-MED	dimitris@gwpmmed.org	30203247490
12	Dragan Zeljko	River Sava Commission	dzeljko@savacommission.org	38514886968
13	Emil Bakula	Agency for Adriatic Watershed, FBA, B&H	<a href="mailto:ebakula@jadran.ba">ebakula@jadran.ba</a>	38 736 397 881
14	Geary Schindel	Edwards Aquifer Authority	gschindel@edwardsaquifer.org	12 102 222 204
15	Goran Vukmir	UNDP, B&H	<a href="mailto:goran.vukmir@undp.org">goran.vukmir@undp.org</a>	
16	Holger Treidel	UNESCO-IHP, France	<a href="mailto:H.Treidel@unesco.org">H.Treidel@unesco.org</a>	33 145 683 943
17	Igor Palandzic	UNDP, B&H	ipalandzic@undp.ba	
18	Jacques Ganoulis	INWEB, Greece	iganouli@civil.auth.gr	302 310 995 682
19	Ljubomir Zotovic	HET, RS, B&H	<a href="mailto:ljubomir.zotovic@het.ba">ljubomir.zotovic@het.ba</a>	
20	Miodrag Stevanovic	Ministry of Agriculture, Forestry and Water Management, RS, B&H	<a href="mailto:mps@mps.vladars.net">mps@mps.vladars.net</a>	
21	Miroslav Steinbauer	Croatian Waters, Croatia	Miroslav.Steinbauer@voda.hr	3 856 307 302
22	Nenad Toholj	Geological Survey RS, B&H	n.toholj@teol.net	38 765 372 233
23	Neno Kukuric	IGRAC/UNESCO, The Netherlands	Neno.Kukuric@deltares.nl	31 612 656 183
24	Neven Kresic	IAH Commission, USA	nakresic@mactec.com	15 409 379 992
25	Novak Cadjenovic	Ministry of Tourism and Environment, Montenegro	novak.cadjjenovic@gov.me	38 220 228 511
26	Petar Milanovic	Consultant, Serbia	petar.mi@eunet.rs	381 116 449 109

27	Philippe Pypaert	UNESCO Regional Bureau for Science and Culture in Europe, Italy	p.pypaert@unesco.org	393 485 161 045
28	Raya Marina Stephan	UNESCO-IHP, France	R.Stephan@unesco.org	33 145 684 115
29	Roberto Vallone	National research Council, Italy	roberto.vallone@igag.cnr.it	390 690 672 737
30	Selma Cengic	Hydro Engineering Institute Sarajevo, B&H	selma.cengic@heis.com.ba	38 733 212 466
31	Stefan.Schafranek	Competence Pool Water, Austria	Stefan.Schafranek@joanneum.at	
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# DIKTAS



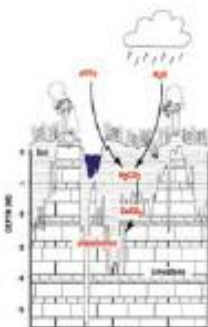
Protection and Sustainable Use of the Dinaric Karst Transboundary Aquifer System

UNESCO GEF UNDP

DIKTAS is a project initiated by the aquifer-sharing 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.

### Karst Environment


More than 25 percent of the world's population either lives on or obtains its water from karst aquifers. Karst is a special type of geologic environment that is formed by dissolution and corrosion of soluble rocks, such as limestone and dolomite. Karst hydrogeology is characterized by high fracture controlled permeability, almost total absence of surface water, high infiltration rates and rapid underground flows of groundwater.



Knowledge on complex karst hydrogeological systems and their behaviour need to be extended and consolidated; it should form a solid basis for a sustainable management of these precious and vulnerable water resources.

### Partners

DIKTAS is a full-size GEF ([www.gef.org](http://www.gef.org)) regional project, implemented by UNDP ([www.undp.org](http://www.undp.org)) and executed by UNESCO-IHP ([www.unesco.org/water/ihp](http://www.unesco.org/water/ihp)). The core DIKTAS project partners are four GEF fund-recipient countries of the Dinaric region, namely Albania, Bosnia and Herzegovina, Croatia and Montenegro. Several other countries (in the Dinaric region and beyond) and international organizations have also joined this challenging project.



# DIKTAS

Protection and Sustainable Use of the Dinaric Karst Transboundary Aquifer System

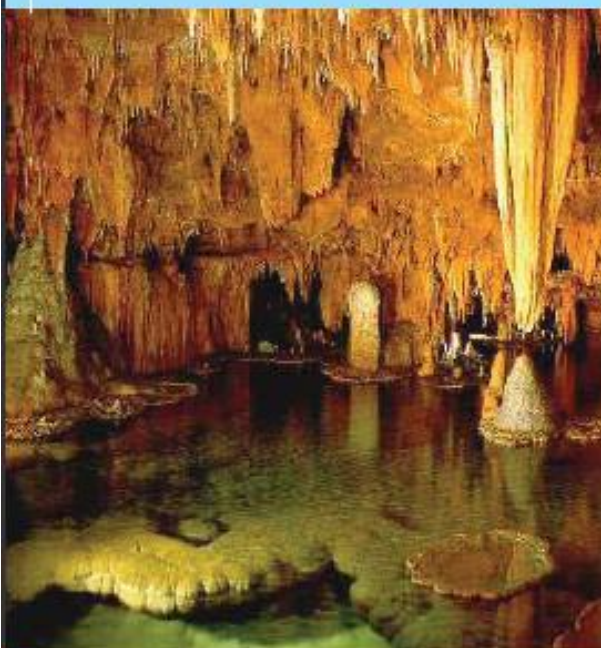


## Project objectives

The Dinaric Karst Aquifer System, shared by several countries and one of the world's largest, has been identified as an ideal opportunity for applying new and integrated management approaches to unique karst water resources and ecosystems.

At the global level, the project aims to focus attention of the international community on the huge but vulnerable water resources contained in karst aquifers. At the regional level the project's objectives are:

- to facilitate the equitable and sustainable utilization of the transboundary water resources of the Dinaric Karst Aquifer System, and
- to protect the unique groundwater dependent ecosystems that characterize the Dinaric Karst region of the Balkan peninsula.



## Project Activities

The project preparation phase was implemented during 2009, including a preliminary transboundary diagnostic analysis (TDA) and understanding of knowledge gaps. The full-size project execution has started in November 2010 and it will last for 4 years. The project activities include among others an in-depth analysis of various transboundary issues, implementation of environmental status indicators, establishment of national and international cooperation and information exchange mechanisms and the stakeholders participation activities.

More information and the contact: DIKTAS project site: <http://dinaric.twlearn.org>