Strengthening Education and Training Capacity on Natural Resource Conservation in Ohrid – Prespa Basins

Cross-Border Cooperation Programme (IPA Albania-Macedonia)
April 2012 – September 2013

STATE OF AFFAIRS IN THE CROSS BORDER REGION OF LAKE OHRID AND LAKE PRESPA BASIN

(SWOT ANALYSIS)

Consortia:

1. ***Research Centre for Rural Development (RCRD), Albania***
2. ***The Union of the Ecologists "Natyra", Macedonia***
3. ***"Krste Jon", Macedonia***
4. ***Programi Kombetar i Qendrave Rinore (SOEK), Albania***
5. ***"Kadmi & Harmonia" , Albania***

Prepared by: KOCKA Training Institute

Funded by the European Union

This document has been prepared by:

КОЦКА Институт за обука,

In the framework of the project:

"Strengthening Education and Training Capacity on Natural Resource Conservation in Ohrid – Prespa Basins"

Contract Number: 2012/288-302

March 2013



Funded by the European Union

TABLE OF CONTENTS

SHORT SUMMARY OF THE DOCUMENT 1

BACKGROUND INFORMATION 2

GOALS AND PURPOSES OF THIS DOCUMENT 6

PROJECT OBJECTIVES 7

METHODOLOGY USED FOR PREPARING THE SWOT ANALYSIS 8

INTRODUCTION TO SWOT ANALYSIS 9

OVERVIEW ON THE CURRENT SITUATION 10

SWOT MATRIX 11

LEGAL FRAMEWORK FOR PROTECTED AREAS 13

SOCIAL AND ECONOMIC SITUATION 15

ASSESSMENT OF ENVIRONMENTAL SITUATION 20

ASSESSMENT OF THE CAPACITIES AND NEEDS FOR ENVIRONMENTAL EDUCATION 24

RECOMMENDATIONS 27



Short summary of the document

This document have been produced in the framework of the project "Strengthening Education and Training Capacity on Natural Resource Conservation in Ohrid – Prespa Basins" within the Cross-Border Cooperation Programme (IPA Albania-Macedonia), implemented in the period April 2012 – September 2013.

The goal of this document is to carry out analysis and create Cooperation-Opportunities Matrix at regional level and Identification of good practices and needs of communes and local government units and describe the state of the art where the project is implemented.

The document is consisted of three main parts:

- Background information – explaining the overall situation in the region, and the needs for the planned analysis for the future planning and development of the cross border area. This part also includes the used methodology for the development of the document, including the target groups and beneficiaries which are of crucial importance for the good quality analysis and document;
- Detailed analysis of the strengths, weakness, opportunities and treats in defined areas of Ohrid –Prespa basin, Legal framework for protected areas, Social and economic situation, Environmental situation and Assessment of the capacities and needs for environmental education. Each of these topics are elaborated separately with summary situational analysis and conclusions;
- General recommendations concerning the overall analysis of the region for all topics and fields

The documents can be used by all stakeholders in the region including the local governments, public institutions, business and civil society organizations working in the field of environmental protection, education and tourism management.



Background information

Almost half of the interstate border between Albania - Macedonia (65 km) divides the basins of Small Prespa (Prespa e Vogel), Big Prespa (Prespa e Madhe) and Ohrid lake. This Region is of particular importance for both countries; this is the most economically developed area along the border, one of the most ecologically rich in Balkans and in the same time, the most environmentally sensitive.

There is a considerable difference between the two countries, both at economic and environmental level. On the Albanian side, the landscape is degraded, the economic development is weaker, number of tourist is one-fourth of those on the Macedonian side, the quality of the services is low and the environmental management is at the very beginning. On the contrary, on the Macedonian side, the environment is better managed and economic development and especially the quality of services from the tourist viewpoint is more stable. The fact that exchange of experiences at the environmental level, sustainable development, environmental management from the Macedonian to the Albanian sides are very limited or non-existent is paradox. However, we should not neglect the fact that the "history" of the economic development of both countries is different; in the last fifty years, Macedonia has had a higher development dynamics; a more harmonized development of natural resources and a more correct application of environmental protection legislation.

Recent analyses show that the differences in economic development between both countries have been reduced due to increased convergence of sustainable development and environmental management policies under EU integration process. Thus, despite the abovementioned changes, needs in building training capacities on environmental education are almost similar. However, the need for rationally transferring the best practice on environmental management from the Macedonian side, as well as increasing the attempts of both countries in transferring coherent knowledge on sustainable development applied in more consolidated EU member states is obvious.

In the context of sustainability of Macedonia and Albania, institutional reforms for the management of natural resources are important concerns for environmental and economic policies. In spite of the fact that institutional reforms are at different stage, the regions, municipalities, regional directories, NGO's for both countries have expressed the need to increase the knowledge base and improve the performance of natural resources management, also

in relation to the rapprochement to the European Union.A major handicap in environmental education has been the lack of connections between highly qualified centers of environmental education and other local and central institutions, business managers and citizens. According to Agenda 21, one of the most important objectives for promoting training in environmental education is: *„To strengthen national capacities, particularly in scientific education and training, to enable Governments, employers and workers to meet their environmental and development objectives and to facilitate the transfer and assimilation of new environmentally sound, socially acceptable and appropriate technology and know-how"* (Chapter 36 Agenda 21). .

Build TRACA project is implemented in the Ohrid and Prespa Lake, a region of particular importance for the sustainable economic development, especially tourist, in conformity with the sustainable development of natural resources, for both countries. For Macedonia, basins of Ohrid and Prespa lakes constitute the most important tourist site which provides welfare for the inhabitants of lakes' coasts. For Albania, the Region is a reference point for the sustainable development to ensure the lack of further degradation of ecosystems due to overpopulation, misuse of space and pressure on natural resources from the rural population. For both countries, the Region constitutes a large reserve of sustainable tourist development due to the presence of abundant and particular natural resources, protected parks with large recreation opportunities, rapid development of infrastructure, similar policies for environmental management and multiethnic populations. Thus, this Region is appreciated as a cultural meeting point with positive energetic effects if ambitions aim the same target.

The length of the frontier line crossing the Region is about 65 km through the basins of Small Prespa Lake (east), Big Prespa Lake and Ohrid Lake (west). There is situated the National Prespa Park (27500 ha) which is shared among three states: Albania – Macedonia – Greece including the Small Prespa and Large Prespa lakes. From the Macedonian side, Galicica Park (25000 ha) is located, with 176 plant species, out of which 58.4% are indigenous. It is one of the three largest parks of Macedonia. On the east face of Shebeniku mountain (in the border with Albania) a strictly protected area is located. From the Albanian side, beside the National Prespa Park (the largest for Albania), a surface of 5063 ha located on the side of Ohrid lake has been declared a strictly protected area (1996 and 2006) and on the west face of the Shebeniku mountain, Rajca forests are National Rajca Park (4700 ha). All the area between the two places in Ohrid and Prespa is proclaimed protected area or national park (about 60 000 ha).

On the demographic plan, human resources and the socio-economic situation of the Region where the project will be implemented, is described as follows; from the Albanian side: population number 261000; 57% of them deal with agriculture; there are 2 teams with 60 people dealing with the management of national parks, 1300 small businesses, 38 hotels with a capacity of 730 beds, 34 local NGO with experience in studies/activities in the field of environment, 164 licensed sailors, 18 high schools and about 11400 pupils, 630 teachers (54 teachers of biology and 76 teachers of geography) 14 local agricultural departments (4 forest directories, 4 agricultural directories, 2 environmental directories, 4 education directories) with about 230 officials, one university with 3000 students (F. Noli, Korça).

From the Macedonian side, the situation is characterized as follows: number of population 101800, 28 % of them dealing with agriculture, there are two teams managing national parks with 56 officials, 84 hotels with about 2900 beds, 5 middle schools with about 4800 pupils, 108 NGOs with about 430 members, local agricultural departments and a branch of the Skopje University (Department of Hydrology) with 65 researchers and a branch of Tetovo university (Faculty of Ecology with 300 students).

There is a lack of connection between the professional corpus and the local government/civil institutions from one side and, from the other side, failure of coordination between the local government and the central government, combined with discrete funds. Such failure does not enable a clear coordination at the national/regional level for environmental education.

According in the EU Regional Programme on Environment (Western Balkans 2006 – 2011: trends, opportunities and risks) problems for both countries are the following:

Weak environmental governance: The institutional and administrative capacity of the national and local governments in the countries of the Western Balkan is rather weak. General agreed principles of environmental management like “the polluter pays”, “the precautionary principle” and “the ecosystem approach” are not applied.

Integration in Europe is a strong driver for environmental management: The perspective of EU accession is a key driving force for environmental improvement in the Region. Through fulfilling the obligations of the Candidate Countries Process, the countries in the Western Balkan are moving towards implementation of the environmental Acquis.

Lack of financial resources for environmental investments: The rapprochement towards the EU requires huge investments in environmental infrastructure. Studies of the European Commission have calculated that in Eastern Europe full compliance with the EU legislation will require spending

of two to three percent of GDP annually. In both countries, where the GDP is still much lower, reaching that level of expenditures presents a major problem.

Limited trans boundary co-operation: Although many environmental problems in the West Balkan have trans boundary effects, co-operation between neighboring countries is not very common.

On the basis of the analysis conducted in this border Region, it was found that the latest has a high environmental and economic importance. Although there are a lot of opportunities for positive economic climate and cooperation among both Albanian and Macedonian side, because of different reasons, this is not sufficiently used. One of several reasons is lack of functioning of the information flow as a good basis for frequent cooperation of interested parties in the Region. Moreover, there are several legal and infrastructural obstacles, problems and difficulties, which are stopping or slowing down this potential cooperation. No concrete and serious activities were conducted to enhance and improve the situation in this field. As a strong pillar to further strengthening of the cooperation between two countries, we can also consider local authorities of towns within cross border area.

Goals and purposes of this document

The aim of Result 2 of the project is to create a Cooperation-Opportunities Matrix at bi-national/regional level by identifying, analyzing and benchmarking local unit's administration and NGOs' cooperation agendas. The specific objectives of this work package are the following:

- Gather, analyze and evaluate existing policies/programmes/actions, agendas and infrastructures from both conceptual and environmental education viewpoint.
- Identify good practices and needs of local units' administration and describe the state of art.
- Identify strengths, weaknesses, opportunities and threats (SWOT) in four sub-regions (Ohrid & Struga, Pogradec and Prespa border) inside the lake basins of the Region.
- Realize, in collaboration with others actors in the Region, the following studies: (i) environmental condition and the most important issues and their prioritisation, (ii) forest situation and fire management, (iii) agriculture development and sustainable development (iv) tourism development perspective in mid-term and long-term and obstacles/advantages.
- Identify synergies and complementarities between partners.



Project objectives

The *overall objective* of the project is to improve professional performance in the environmental education contributing to a sustainable economic development of the cross border area of South-West region in Macedonia (Struga and Ohrid Municipalities) and Korça & Elbansan regions in Albania (Pogradec and Librazhd Municipalities).

The projects Specific objectives of the project are to:

1. Improve environmental education capacity by raising competence levels on both sides of the border;
2. Encourage knowledge transfer by establishing networks among the local government authorities, academics, training institutions and NGO's, and
3. Promote joint activities.

Expected outcomes of the undertaken activities in the frame of the project should be:

- Protect the biotic environment
- Avoid overfishing
- Protection of rare species
- Improve management conditions in protected areas
- Control lake's level
- Control water pollution
- Control industrial wastes
- Create common monitoring system
- Control agricultural activities
- Reduce the extensive use of fertilizers
- Create opportunities for tourism development
- Decrease unemployment rate
- Ameliorate infrastructure

Methodology used for preparing the SWOT analysis

The Methodology used for the development of the SWOT analysis was based on a highly participatory methods and techniques. Through participative process of consultation targeting all relevant beneficiaries, including desk research and analysis of local municipal strategic document, regional strategies, national strategies and policies and also including civil society consultations.

The activities were focused on the following target groups:

- Local authorities (communes, municipalities, districts and prefectures)
- Administration units of the territory of Struga, Ohrid, Pogradec and Librazhd Municipalities
- Environmental Agencies, The Forestry, Agricultural & Education directories, Parks & Tourisms units in the Region
- Ministry of Environment, Forests and Water Administration (Albanian side) and Ministry of Local Governance (Macedonian side)
- Ministry of Agricultural, Food and Consumer Protection (Albanian side) & Ministry of Agriculture (Macedonian side)
- Ministry of Tourism, Culture, Youth and Sports
- Environmental, Agricultural, Forestry, Tourism Sustainable Development Associations
- Teachers and students of high schools at the Region
- Local/national Civil Society Organizations (involved in the environmental education & sustainable development)

The process was also open for:

- Population of the Ohrid & Prespa region
- The tourism industry in the region
- Local authorities across the territory of both side, which benefit from the model of natural resources management (forests & pastures), sustainable development, environmental education (EE) and legal institutional arrangements.



Introduction to SWOT analysis

SWOT matrix is a modern analytical tool in structural planning that can serve to evaluate and estimate the Strengths, Weaknesses, Opportunities, and Threats of the current situation on specific field. It helps identifying the internal and external factors that are favorable and unfavorable to achieve specific objective. In general is a tool that gives a clear picture on the current situation and helps in further planning of activities in order to achieve a specific goal.

More precisely, the elements of SWOT analysis include:

- **S**trengths: characteristics that give advantages over others
- **W**eaknesses: characteristics that need further development
- **O**pportunities: elements that could use as an advantage
- **T**hreats: external elements that could threaten the current situation

The aim of any SWOT analysis is to identify the key internal and external factors that are important to achieving the objective. SWOT analysis groups key pieces of information into two main categories:

- Internal factors – The *strengths* and weaknesses internal to the organization and or region.
- External factors – The *opportunities* and threats presented by the external environment to the organization or field of work.

Based on the facts from this SWOT analysis matched with objective analysis, we identified opportunities that are compatible to the Ohrid-Prespa basin strengths, use them to overcome weaknesses, try to use strengths in order to reduce vulnerability to external threats and to establish an appropriate plan to minimize weaknesses and avoid threats.

During the preparation of SWOT analysis we were matching the strengths to opportunities in order to find *competitive advantages*. Also we were trying to convert weaknesses or threats into strengths or opportunities. In such way we were looking for appropriate solutions.

This SWOT analysis is adjusted to the ToR of the project and assess in details the general situation in Ohrid-Prespa region in terms of location, geological history, hydrology, wildlife, social and economical circumstances, legal and institutional basis for its protection and development.

Overview on the current situation

The main objective of this project is not only to improve the environmental situation and to conserve its present quality but also to strengthen sustainability in the relation of human activities with natural resources and enhance the standard of living of the inhabitants. In other words, achieve sustainable development.

In order to manage this, problems concerning pollution and depletion of the lake, natural resources, biotic environment and socio-economic development were analyzed, and were considered as a starting point for the further development of this document.

The natural heritage and unique biodiversity of the region is under a permanent and strong pressure of anthropogenic factor.

Changes of water quality also take place and there is a constant reducing appeal to tourist due to eutrophication and increased pollution (wastewater and solid waste).

Industry also contributes pollution to the lakes. Although, the existing legislation covers waste and wastewater treatment, the citizens do not respect it.

The main economic activity for both countries is agriculture. The agricultural activities in the basin are a significant source of pollution to the Lakes, as pesticides and fertilizers wash into rivers and streams, affecting their water quality.

Because of intensive irrigation, the fields are widespread, the lake level, especially Prespa is dropping and the cultivated land extends right down to the edge of the lakes. The intensive agriculture also disrupts nutrients balance of soils and affects natural resources.

Since 1960, fish production is steadily decreasing, due to overfishing and overgrowth of the reed beds and there is a constant decline in the number of fishermen. In Albania and Macedonia, a decrease in fishing production and a change of fish and bentho-fauna due to water pollution are also noted. This fact together with a possible foreign fish importation, disturb the biotic environment.

There is low total gross income per capita and there is an increase in unemployment rate. The inexistence of opportunities forces people and especially, young people to leave the area and go to bigger urban centers.

The medium quality infrastructure in both countries set the accessibility of the basin difficult and sometimes impossible. This fact together with the lack of adequate level of standards in hotels management and catering lessens the interest of tourist to visit this region.



SWOT matrix

Site description of Ohrid – Prespa basin

ISSUE	Strengths are characteristics that provide advantage	Weaknesses are characteristics that lead in disadvantage	Opportunities are chances to improve the situation	Threats are external elements that could cause trouble
Physical and environmental characteristics	- Ideal location in trans-boundary area - Wide catchment area - Pleasant climate - Attractive from geo- hydrological point of view - Water quality is still satisfactory	- Relatively isolated region from infrastructural point of view - Missing of efficient system for water protection - Strong anthropological pressure	- Improvement of infrastructure - Establishment of a water protection system - Reduce the pressure to the environment trough environmental education	- -arginalization of the region in touristic context - Further "erosion" of the environment around Ohrid-Prespa basin
Biological characteristics	- Diverse habitat as a basis for biodiversity - Plenty species of organisms as an attraction - Most bio-diverse lake in the world compared on the basis of area - A lot of endemic species	- Lack of capacities for protection of biodiversity - Pollution is forcing some organisms into a disappearing - The habitat is changing against the natural rules	- Measures to protect endangered species - Increasing the public awareness about the protection of the region - Reduction of the pollution in the region	- Disappearing of rare species - Ruined habitat for the wildlife in the region

CONCLUSIONS:

The Ohrid and Prespa basin, is characterized with a pleasant climate, and an attractive geographic location, with good quality water, ideal for cross border initiatives in the field of tourism and use of natural resources. On the other side, the region is relatively isolated from the main infrastructural connections of both countries, being far from the capital, and there are not many success stories in the field of joint initiatives in the field of water protection, and preservation of the resources.

From the biological perspective, the region has reach biodiversity, having the Ohrid Lake in the UNESCO list of protected areas as a UNESCO monument of culture and Nature, as one of the most bio-diverse lakes in the world also reach of endemic species.

The joint initiatives should be focused on improvement of the infrastructure and making the region easily accessible, but at the same time taking care on the resources and the environment, focusing on sustainable development in the field of tourism – with a special attention of a integrated water protection system with low influence on the environment. A special programs should be initiated in the field of preservation of the biodiversity, and incensement of the species habitat in the area. Having in mind the past habits of the population in the area, and the intensive industrialization of the region on both sides of the border – especially in the past during the socialism, a special attentions should be given to the Environmental education as one of the tools for a long term environmental protection and sustainable development. This will also, on a long term, build strong bases for stabile environmental protection of the natural resources.

On a national level, a strong influence should be put on the tourism development strategies in order to keep the region high on the national agendas for development and promotion.



Legal framework for protected areas

ISSUE	Strengths are characteristics that provide advantage	Weaknesses are characteristics that lead in disadvantage	Opportunities are chances to improve the situation	Threats are external elements that could cause trouble
Institutional and Administration Framework	- Two level of responsibilities - Special body responsible for the lakes	- Miss-coordination between state and local level of governance - Lack of institutional capacities - Overlapping in responsibilities	- Training of appropriate employees in the field of decision making process - Development of mechanisms for coordination between both levels	- Frequent changes in the personnel responsible for this issue - Permanent lack of institutional memory regarding the region
Environmental Policies	- Established cooperation with neighboring countries - Few realized joint projects - Respectable expert capacity	- Lack of consistent document - Lack of good governance experience	- Preparation of the strategic document for integral development of the region	- Further destruction of the natural heritage in the region
Legal Framework	- Relatively appropriate legal framework in terms of the protected areas - Adjusted legal documents to EU acquis	- Lack of implementation capacities - There is no appropriate financial support	- Training for efficient implementation of the laws and other legal documents	- Remaining the practice for "good" laws without appropriate implementation
Administration of Protected Areas	- Well defined protected areas in the region - Experience in their protection	- Different manner of administration (public and non-governmental - Lack of scientific capacities - Weak cooperation with scientific institutions	- More research activities in the protected areas - Strengthening of protection measures trough integrated activities	- Loosing of status as protected areas - Disappearing of rare species in the protected areas

CONCLUSIONS:

Concerning the legal framework for protected areas, the regions is characterized with increased awareness of the public and institutions on the importance of the regional approach for long term sustainable development and successful management with the protected areas in the cross border region. So far there have been several success stories in the field of cross border initiatives and a respectable expert capacity has been built. The legal framework connected to the protected areas is in place, and is in-line with the EU acquis. The protected areas are well defined, and there are already capacities and experience for protected areas management.

On the other hand, the implementation and enforcement of the regulations connected to the management of protected areas, still need to be improved. There is lack of implementation capacities and mechanisms, and there is not enough funding in this filed. There are cases of overlapping in responsibilities and therefore miss-coordination between the state and local government. This brings to inconsistence in the legal enforcement and lack of cross border initiatives among the political and scientific institutions.

A further efforts should be put on increasing of the capacities (mainly human capacities) of the law enforcement institutions in the region, and facilitation of a process for development of cross border mechanisms for coordination of the activities in the field of management with the protected areas. A strategic approach should be considered for integral sustainable development of the region and integral preservation of the protected areas. A fully participative strategic planning process should be initiated including all relevant stakeholders from both sides of the border, with a special focus on the scientific workers.

If urgent measures are not taken, the worst case scenario leads to disappearing of rare species in the protected areas, which are of huge national, and world value, which could lead to possible loosing of the status of Protected areas, which on the other hand can have also negative economic and social influence on the entire cross border region.



Social and economic situation

ISSUE	Strengths are characteristics that provide advantage	Weaknesses are characteristics that lead in disadvantage	Opportunities are chances to improve the situation	Threats are external elements that could cause trouble
Population and migration	- Heterogeneous population from ethnical and religious point of view - Long tradition for living together philosophy	- Immigration caused by economic reasons (unemployment, low living standard) - Interethnic tensions - Migration from rural to urban areas	- Economic and social measures to motivate rural population to remain - Increasing of mutual understanding	- Continuous stagnation of economic growth - Social and other conflicts - Devastation of the rural areas
Income and employment	- Large active population in the region - Available qualified labor force (still limited)	- High unemployment rate - Employment disparities between urban and rural areas - Inappropriate educational structure of unemployed people	- Direct investments from foreign and domestic entities - Motivation of the emigrants to invest	- Increasing of unemployment - Decreasing of income on the family level
Economic structure	- Flexible economic structure based on small companies	- Missing of large and medium companies that can serve as a basis for economic growth	- Promoting of so called “clean” technologies - More investment in tourism and catering	- Development of the industrial capacities that can affect the environment
Land Use and Agriculture	- Fruit production - Household organization of agricultural activities in small farms	- Around 60% of the agricultural land is out of use - Missing of food processing companies - Missing of efficient irrigation system	- Opening of processing companies and cooling capacities - Training of farmers and unemployed people - GAP implementation	- Further reducing of agricultural production

ISSUE	Strengths are characteristics that provide advantage	Weaknesses are characteristics that lead in disadvantage	Opportunities are chances to improve the situation	Threats are external elements that could cause trouble
Livestock	- Enough pastures - Diverse breeds and strains of domestic animals	- Weak livestock sector - Missing diary processing facilities - Feedstuff is not covered by own production	- Training of livestock farmers - Investments in milk and meat processing	- Stagnation of animal production - Further devastation of land for feedstuff
Businesses	- Diverse business sectors - Opened economic zone in Struga	- Practices of the gray sector, - Political instability. - Weak infrastructure	- Support of small and medium enterprises - Training for entrepreneurship	- Low level of business activities
Fisheries	- Uncontaminated fish - Tasteful and expensive species of fish	- Small contribution in state economy (0.1%) - Missing of organized care for fish fund	- Systematic measures for sustainable fishing of endemic species - Investment in fish processing and preserving	- Disappearing of endemic species, especially Ohrid trout
Tourism & infrastructure	- Excellent geo-strategic location, - Moderate-continental and Mediterranean climate, - Exceptional fund of flora and fauna - Areas with well-preserved natural environment and healthy food - Rich historical past and cultural heritage - Excellent conditions for the development of winter sports - Tourist resorts and coffee spots on the beaches - Strongly expressed tradition in the field of hospitality and folklore.	- Weak traffic infrastructure - Weak touristic offer in Prespa	- Investment in Prespa part in tourism and catering - Training of domestic population - Promo-activities for development of the tourism in the region - Improvement of the traffic infrastructure in the region, especially railway	- Stagnation of the tourism in Prespa - Huge anthropogenic pressure to lakes - “dirty” technologies in industrial sector

ISSUE	Strengths are characteristics that provide advantage	Weaknesses are characteristics that lead in disadvantage	Opportunities are chances to improve the situation	Threats are external elements that could cause trouble
Energy Use	- Respectable number of sunny days - Available renewable sources of energy - Available research capacities for systematic increasing of non-conventional energy sources (biogas, wind power etc.)	- Import dependence in energetic sector - Unused hydro potential	- Investment in renewable energy usage - Training of local population - Beneficiaries for the users of renewable sources of energy	- Expensive import of energy
Environmental Education	- Available funds for environmental education - Relatively developed NGO sector that is dealing with environmental issues - Established appropriate educational and scientific institutions that are involved in environmental education	- Local curricula for environmental education in formal education are missing - There is no strategy for environmental education on the national and regional level - The target groups for specific type of environmental education are not defined - In some parts of environmental education there are no activities (sustainable agriculture, renewable energies, eco-tourism	- Creation of local environmental curricula - Preparation of the program for educational education in the region - Development of the specific training tools for specific type of environmental education	- Further destruction of the environment - Further marginalization of important issues such as: sustainable food production, eco-tourism, renewable energis

CONCLUSIONS:

The Social and Economic analysis require wide range of fields that need to be taken into consideration in order to draw good quality conclusions. This field focuses on the following fields: Population and migration; income and employment; economic structure; Land use and agriculture; Live stock; Business; Fisheries; Tourism and infrastructure; Energy use; and Environmental Education.

From the social and economic perspective, the region is characterized with heterogeneous population from ethnical and religious point of view, with very strong cultural and traditional values. There is a large group of active population and qualified labor force, but with a high level of unemployment and unused human resources. This is one of the major reasons for the migration of the population, especially from the rural areas to the country capitals or to foreign countries. The structure of the business is predominately small and medium companies, with a lack of foreign investments and large companies that can serve as a motor for the economic growth. A special attentions should be put to the development of "clean technologies" and investments in tourism as one of the most promising economic areas in both sides of the border. When promoting the business there should be clear understanding on the types of business that should be developed in the region, having in mind the sustainable development and the impact of the industry towards the environment and the cultural and natural values.

In the field of agriculture, which traditionally is the main income generating activity in the cross border region, there is still a case of small family farms, which can not be competitive on the agricultural market. There are large agricultural land which is not used, and there are not enough food processing companies, which at the same time will motivate the population for use of the unused agricultural land. The current situation shows that the agricultural production in the region has a declining trend which on a long term influences the family income, and the development of the region, and at the same time increases the migration process. The situation is more or less similar with the livestock sector. A regional or national strategy is necessary in order to start a process of strengthening these two traditionally important areas. The situation is slightly different with the fishery sector, which is characterized with good quality uncontaminated fish, but there is a lack of organized initiative for fish breeding and a separate "care for fish fund", as well as there is no fish processing industry in the region. On the other hand there should be a special attention on preserving the overfishing in order to keep stable fish population in the region.

The tourism is one of the predominant industries in the region and many families have their main income from the tourism. The region has very good geo-strategic location a pleasant climate conditions, exceptional fund of flora and fauna, very well preserved natural environment and healthy food. In addition to this, the region has reach historical and cultural heritage, and strong tradition in the hospitality and folklore. The field where a special attention should be put is the organized tourist promotion, and investment in tourist infrastructure, there is a lack in secondary tourism services, and high quality tourism facilities.

Having in mind the abovementioned facts and the current situation in the region, there is a need of extensive educational programs that should target the local population, business, civil society organizations as well as the local governments. Especially the education is needed in order to prevent potential business activities, which are very popular and attractive from a economical point of view, but on the other side can have huge negative influence to the environmental, and the health of the population. The line between the economic growth and the environmental protection is very teen, and only well educated people can understand the importance of the sustainable development.

Assessment of environmental situation

ISSUE	Strengths are characteristics that provide advantage	Weaknesses are characteristics that lead in disadvantage	Opportunities are chances to improve the situation	Threats are external elements that could cause trouble
Interventions in the Lake watershed and changes in the water regime	- Relatively good hydrological balance in Ohrid lake - Draining of a huge agricultural area around the lakes	- Permanent loss of water in Prespa lake - Saturation of Ohrid lake shore with the sediment from Sateska river - Shoreline vegetation on the entrance of Sateska River has been lost.	- Cleaning of the riverbed of Sateska river	- Further destruction of the wildlife in Prespa lake due to permanent loss of water - Affection of the shoreline of Ohrid lake close to Sateska river entrance
Pollution sources of surface and ground water	- Water quality in Ohrid-Prespa lakes is still relatively acceptable	- Usage of "chemistry" in agro-food production - Missing of industrial waste water treatment facilities - Non completed sewage system around the lake - Larger tributaries discharge into the lake, especially the Sateska, Velgoska, and Koselska Rivers	- Completion of the sewage system around the lake on a both sides - Installation of a waste water treatment facilities as a precondition for new industrial objects - Training for usage of environmental friendly pesticides	- Accumulation of toxic compounds in the lakes (heavy metals, pesticides etc.) - Contamination with disease-causing bacteria and viruses
Lake eutrophication	- Ohrid lake is still oligotrophic	- Fertilized by nutrients, detergents, human and animal waste.	- Restriction in all potential pollutants that cause lakes' eutrophication	- Actions of people are greatly accelerating the eutrophication

ISSUE	Strengths are characteristics that provide advantage	Weaknesses are characteristics that lead in disadvantage	Opportunities are chances to improve the situation	Threats are external elements that could cause trouble
Solid waste management	- Few licensed waste disposal in the region	- More than 50 non permitted waste disposals - No composting facilities - Few recycling capacities - Lack of suitable infrastructure	- Improvement of solid waste infrastructure - Training of public administration involved in waste treatment	- Contamination of underground water that serves as sources for drinking water
Deforestation	- Diverse tree vegetation	- Over exploitation of raw materials in wood industry	- Massive actions for renewing of forests in the region - Environmental education related to the importance of "green lungs" of the Planet	- Disappearing of some tree species - Land erosion due to deforestation
Land Use Practices	- Available land for different purposes	- Reduction of agricultural area - Reducing of forests and pastures	- Measures to improve land use practices - Delineation of land use to estimate the magnitude of this problem	- Inappropriate use of land - Inadequate urbanization of the region

ISSUE	Strengths are characteristics that provide advantage	Weaknesses are characteristics that lead in disadvantage	Opportunities are chances to improve the situation	Threats are external elements that could cause trouble
Fishing and Hunting Practices	- Restriction in fishing of Ohrid trout on Macedonian side - Active measures for regulating of hunting activities	- Missing of systematic approach in protection of endemic fish in lakes - The wildlife in hunting area is endangered - Introduction of non-native species into the lake - Misusing of hunting activities	- Renewing of ohrid trout population and populations of other endangered fish species - Training of fisherman for sustainable fishing	- Trout populations are severely stressed and the bleak and carp populations are also threatened
Natural Resource Management	- Project based experience - Previous investments in this kind of management threw the projects	- Project based instead of consistent and sustainable	- Development of strategy for natural resource management in the region	- Destruction of natural resources in the region
Management of Protected Areas	- Established public entities that are managing national parks - NGO-public partnership	- Lack of capacities for successful managing of protected area	- Implementation of good governance policy in managing of protected area - Informal training of employees	- Misusing of protected area for prohibited activities (unauthorized hunting, devastation of biodiversity, endangering of rare species etc.)

CONCLUSIONS:

The environmental situation in the region we can say that is still good with several hot spots, which are not of a regional treat. The water quality in both lakes Ohrid and Prespa is still good, the Ohrid lake is still oligotrophic, there is a diverse tree vegetation. Nevertheless that the situation in general is good, there are some trends that can cause severe environmental problems if not managed properly. One of the main concerns is the permanent loss of water in Prespa lake, the saturation of Ohrid Lake shore with sediment from Sateska river, there are trend of overuse of pesticides for the agriculture, and the missing industrial waste water treatment facilities. The sewage system is still not completed, and there are over 50 illegal waste dumps around the lake area. There is no systematic approach in protection of the endemic species in the region, especially the fish in Ohrid Lake, there are cases of introduction of non-native species, and there is a trend of miss-use of hunting activities and overhunting.

So far there have been several cross border initiatives in joint management with some of the protected areas or joint resources, but there is still a lot of space for this kind of systematic cross border resource management activities. There is a need for joint strategy for management of resources and protected areas, and especially synchronization of the species preservation actions on both sides of the border. The education is of crucial importance and further support to the Civil society organizations in the field of non-formal education of the population and employees in the institutions managing the natural resources in the region.

Assessment of the capacities and needs for environmental education

ISSUE	Strengths are characteristics that provide advantage	Weaknesses are characteristics that lead in disadvantage	Opportunities are chances to improve the situation	Threats are external elements that could cause trouble
Tourism and recreation	- Institutional network (vocational and academic institutions)	- Lack of contemporary curricula dealing with development of tourism based on respecting of environment	- Special programs for informal and non-formal environmental education in touristic sector	- Negative influence of tourism on the environment in the region
Food production and processing	- Diversified NGO sector	- Lack of activities for training of farmers in organic agriculture and healthy food	- Development of the programs for healthy food and sustainable agriculture in contemporary education - Training of farmers and employees in food processing companies	- Food production in the region with high input of chemistry - Consumption of unhealthy food
Energy sources	- Increasing of public awareness about clean energies	- Lack of knowledge and awareness for renewable sources of energy in the region	- Training of citizens and owners of touristic objects for renewable sources of energy	- Expensive and lack of energy
Industry	- Flexible industrial capacities	- The dirty technologies are present in current active industrial companies	- Efficient transfer of clean technologies in regional industry - Preventive measures for environmental protection during the preparation phase in new companies	- Further affecting of environment in the region from industrial sources of pollution

ISSUE	Strengths are characteristics that provide advantage	Weaknesses are characteristics that lead in disadvantage	Opportunities are chances to improve the situation	Threats are external elements that could cause trouble
Tertiary activities	- Support of small businesses	- Limited capacities of small and medium enterprises	- Training courses for production of handicrafts from natural materials	- High unemployment rate
Traffic and traffic infrastructure		- Private cars that are using natural gas are increasing	- Increasing the awareness for environmental friendly railway	- Further pollution of the environment from traffic
General economic development		- Economic development is not in accordance with environmental protection in the region	- Training programs for symbiosis between economy and ecology	- Strong pressure from economy to environment in the region
Raising of public awareness	- Good educational network - Well-developed NGO sector	- Initiatives for raising of public awareness throw the non-governmental organizations	- Campaign for raising of public awareness	- Destruction of environment from different sources of pressures and pollutions

CONCLUSIONS:

The capacities in the cross border region are in constant strengthening, but there is still a huge need especially for non-formal environmental education activities. There is a good network of institutions and professionals in the region, there is a diversified civil society sector, which plays important role in the environmental education, and there are good cross border initiatives on increasing the public awareness on the environmental protection and use of clean energies. This preconditions should be used for a systematic and continuous environmental education activities and there is a need for development of a regional Environmental Education Center, with special focus on the sustainable development, and measures for sustainable development that should be considered in the process of further industrialization of the region.

There is a need for further extensive education of the farmers in the fields of use of pesticides and organic farming and production of healthy food. There is a need for education of the business on clean technologies, renewable energy and energy saving, as principles of the sustainable development. Special attention is needed in the field of the complementarity of the business development and environmental protection and that the environmental protection is not a limiting factor for the business growth.



Recommendations

1. On a national level, a strong influence should be put on the tourism development strategies in order to keep the region high on the national agendas for development and promotion.
2. The joint initiatives should be focused on improvement of the infrastructure and making the region easily accessible, but at the same time taking care on the resources and the environment, focusing on sustainable development in the field of tourism – with a special attention of a integrated water protection system with low influence on the environment.
3. A further efforts should be put on increasing of the capacities (mainly human capacities) of the law enforcement institutions in the region, and facilitation of a process for development of cross border mechanisms for coordination of the activities in the field of management with the protected areas
4. A strategic approach should be considered for integral sustainable development of the region and integral preservation of the protected areas. A fully participative strategic planning process should be initiated including all relevant stakeholders from both sides of the border, with a special focus on the scientific workers.
5. A special attentions should be put to the development of "clean technologies" and investments in tourism as one of the most promising economic areas in both sides of the border. When promoting the business there should be clear understanding on the types of business that should be developed in the region, having in mind the sustainable development and the impact of the industry towards the environment and the cultural and natural values.
6. There is a need of extensive educational programs that should target the local population, business, civil society organizations as well as the local governments. Especially the education is needed in order to prevent potential business activities, which are very popular and attractive from a economical point of view, but on the other side can have huge negative influence to the environmental, and the health of the population.
7. There is a need for joint strategy for management of resources and protected areas, and especially synchronization of the species preservation actions on both sides of the border.

8. The education is of crucial importance and further support to the Civil society organizations in the field of non-formal education of the population and employees in the institutions managing the natural resources in the region.
9. Local resources should be used for a systematic and continuous environmental education activities and there is a need for development of a regional Environmental Education Center, with special focus on the sustainable development, and measures for sustainable development that should be considered in the process of further industrialization of the region.
10. There is a need for further extensive education of the farmers in the fields of use of pesticides and organic farming and production of healthy food
11. There is a need for education of the business on clean technologies, renewable energy and energy saving, as principles of the sustainable development.

This document has been prepared by:

KOCKA Training Institute,

In the framework of the project:

"Strengthening Education and Training Capacity on Natural Resource Conservation in Ohrid – Prespa Basins"

Contract Number: 2012/288-302

March 2013



Funded by the European Union