



Water Resources Management in the Western Balkan Region (Case study of Macedonia, Albania, Kosovo and Montenegro)

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Introduction

According to the statistics, the countries of the Western Balkan region are among the richest with clean water in Europe. However the water resource management and trans-boundary management is not on the highest level of management and control. Due to this in the region have been encouraged different acts of corruption and undermining the public interest. In addition the water management in most of the cases is divided among different ministries, funds, institutions and local municipalities. This additionally facilitates corruption as a result of the separate jurisdiction over the water management.

Nevertheless an additional problem in the Western Balkan region countries is the low level of awareness of the water deficit in the future and the climate change consequences. The low level of awareness discourages projects and dedications to improve or sustain the quality of the drinking water.

In the report the focus will be on Macedonia, Albania, Montenegro, and Kosovo internal water management in each of the countries and their trans-boundary water management and cooperation. Focusing the attention on these Western Balkan countries it will be also elaborated on the current situation of the water management, the mutual agreements and the possible solutions on the problems they are facing in achieving successful water management and trans-boundary cooperation.

In addition a good management of the water in the region is of crucial importance and can provide benefits for the Western Balkan countries. For instance investigations show that with good management of the water only Macedonia can earn over 2 billion euros.

In recent years there are more efforts of organizing workshops in order to raise the awareness of the importance of the water management and the trans-boundary cooperation. The involvement of the international bodies and the international support in these events has been of crucial importance for the Western Balkan region. Nevertheless trans-boundary water cooperation among the Western Balkan countries is of crucial importance as well. Trans-boundary cooperation of the Western Balkan countries in addition facilitates the water management in the region and prevents conflicts.

Water Management in Macedonia

Although Macedonia has a considerable quality of drinking water still the water management does not take the priority in the country. There have been no water investments that would progress the water management. Most of the water installations in Macedonia have been built in 1950s and 1960s.¹ Thus in recent years the water quality in the rural areas is a major concern of the country. The poor management and lack of investments additionally have provoked problems with the quality of the drinking water in the rural areas, although some researches indicate that Macedonia is among the world top of water amounts per capita. However poor

¹ Water Resources of Western Balkan. [Online]. Accessed: 06.04.2011 Available at: http://i-scoop.org/fileadmin/download_files/WATERS_2_.pdf



dedications and poor management in the field of water causes problems with the distribution and sustainability of the water in Macedonia.

A great problem in Macedonia as in the Balkan in general is the corruption. The management of the water resources is divided among large number of stakeholders which creates preconditions for abuse of funds on water resources and management.

Nevertheless since the accession process of Macedonia to the European Union and the evident difficulties of managing the water, now the country is under special monitoring of multinational companies that are concerned with the water management and the water resources in the country. The EU has provided funds for building new reservoirs mainly in the rural areas of the country. Also there have been initiatives as part of the EU accession fulfilment criteria for Macedonia to introduce a new way of integrated management of the water resources. Due to this the Swiss State Secretariat for Economic Affairs (SECO) is providing support and significant funds in the area of wastewater management. Nevertheless Switzerland is the main donor in Macedonia in the sector of wastewater management.

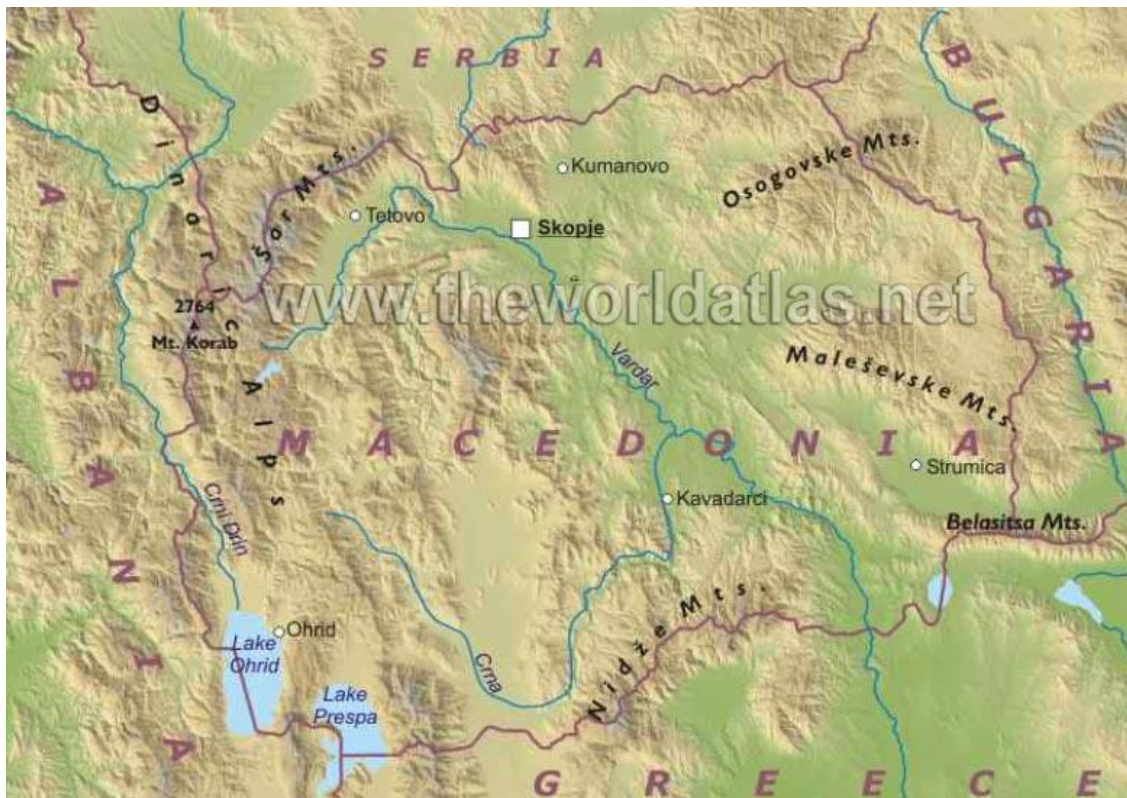
Water Resources in Macedonia

The waters in Macedonia are 2% of the territory of the country. The main water resources that provide clean fresh water accumulation are the three natural lakes-Ohrid, Prespa and Dojran. In addition there are also 35 rivers and 53 overall artificial and natural lakes.

Although Macedonia is rich with drinking water and there is no problem with the amount of water in the country. However there are problems with the infrastructure and the poor management of the water resources that prevent the water to reach in some villages.

Trans-boundary Water Management in Macedonia

Macedonia shares rivers and lakes with neighbouring countries and due to this a high priority is given on the cooperation and the use of Transboundary Rivers and lakes. The lake Ohrid is shared between Macedonia and Albania. The two countries have dedicated on improving the management cooperation and to reform the management regimes for the region. In the cooperation number of environmental NGO's has taken part as well.



Available at: <http://europe.theworldatlas.net/macedonia/macedonia.jpg>

Furthermore, there are some challenges with the trans-boundary water management of the lake Prespa and the region, which is shared between Macedonia, Albania and Greece. According to the statistics, “the lake Prespa is located highest of all Balkan lakes at 853 m asl”². Thus the lake being shared among three neighbouring countries it is important to dedicate on sustainable use as number of users depend on the lake for their livelihoods. There have been organized workshops; one is the DRIMOR Stakeholder Workshop that “discussed and identified the main pressures, conflicts and problems related to use and management of the lake Prespa, the institutional constraints for the trans-boundary management, and their suggestions for improving the management of the water resources”³. There has been also other project including one on the cooperation among the three countries that has culminated in a joint initiative that aims to preserve the ecosystem for the birds, fish, rare plants, living around the Lake Prespa. The project committed on training the farmers how to reduce the pesticide use. According to the United Nations Development Program (UNDP) in Macedonia, the collaboration with the local farmers to reduce their negative environmental impacts (pesticides, water and soil use pattern, etc) and enhancing their productivity in a sustainable manner has engaged the local stakeholders from all three neighbouring countries to achieve integrated ecosystem management of the international water and promote sustainable development.

² DRIMON Policy Brief. 2008. Transboundary Water Management Challenges in the Lake Prespa Region. [Online]. Available: http://www.drimon.no/resultfiles/policy_brief_drimon_prespa_english.pdf

³ *Ibid*



Nevertheless, the integration of water resource management framework, the international support, agreements and public participation, and trans-boundary cooperation will significantly improve the water management in Macedonia.

Water Management in Albania

The water management for Albania is of crucial importance, for that reason there are many projects aiming to support water and ecosystem management. Albania is moving forwards due to the government reforms in the environmental sector encouraged even since 2004.

Albania has also committed itself with agreements and conventions on regional and international level.

On international level of a great importance has been the European partnership. According to the European Partnership Document, approved in January 2006, have been encouraged actions to further develop and implement the national water and sanitation strategy and the rural strategy for water supply. On international level there have been “the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsan) and the Convention for the Protection of the Marine Environment and Coastal Region of the Mediterranean (Mediterranean Action Programme).”⁴

Further on regional level of a great importance has been the bilateral Memorandum of Understanding on Cooperation with Greece and Macedonia in order to improve joint environmental protection, including water and wastewater treatment.

⁴ Shkurta, Eliona. . Wastewater Management in Albania and pilot projects in Tirana. Workshop on Urban wastewater management, with a focus on rainwater systems. 30 November-2 December 2010. Plock, Poland. Available: http://www.cifalplock.eu/03_szkolenia/pdf/16/E.%20Shkurta%20-%20Wastewater%20management%20in%20Albania%20and%20pilot%20projects%20in%20Tirana.pdf



Available at: <http://content.answcdn.com/main/content/img/factbook/maps/al-map.gif>

Moreover “Albania in 2010 has received a comprehensive assistance for improving water and wastewater management, co-financed by the Swiss Agency for Development and Cooperation”⁵. Being aware of the fact that there is a “lack of knowledge of handling drinking water and sewage in developing countries which creates major health problems”⁶ the “Sustainable Sanitation and Water Management Toolbox”, committed to assist Albania.

Trans-boundary Water Management Challenges in Albania

The trans-boundary water management of Albania is still a challenge for the Albanian government in accordance with the Albanian Minister of Environment, Fatmir Mediu. The Minister Mediu “held a meeting with his counterpart of Montenegro, Macedonia and Kosovo where some of the main topics of conversation have been the risk of flooding and conditions of the “Drin” river”⁷. Accordingly there has been estimated that long-term strategies and management should be incorporated in order to meet the challenges of the trans-boundary issues.

⁵ Swiss Agency for Development and Cooperation SDC. 23.12.2010. Sustainable Sanitation and Water Management Toolbox. Available: http://www.swiss-cooperation.admin.ch/albania/en/Home/News/News_Detail?itemID=197559

⁶ *Ibid*

⁷ Water Management, a challenge for the Albanian government. Albeu News from Albania. [Online]. Accessed: 10.04.2011. Available at: <http://english.albeu.com/albania-news/water-management,-a-challenge-for-the-albanian-government/33589/>

Montenegro Water Resources

Montenegro natural resources of the “water surface (springs, rivers, and lakes) is considerable rich and even richer than any other country in the region and many times bigger than the average of Europe or the world”⁸. On the territory of Montenegro are formed “several main water courses which flow in two directions: toward the Black sea and the Adriatic Sea.”⁹



Available at: <http://www.topnews.in/files/montenegro-map.jpg>

In addition the water quality of Montenegro rivers, lakes, sea and groundwater is considerable satisfactory. However the challenge for Montenegro is to facilitate water supply to the rural areas and the adoption of laws and strategies of the country. Montenegro is in an advantageous position as it is rich with quality water resources.

Water Management in Montenegro

In Montenegro the water management is on a good level as it is controlled by special body. In Montenegro the water as a resource is for sale on the free market and it is mainly managed by the state. The country has also committed on establishing strategies for good water management and in the same time asserting a time period to fulfil the strategies by adopting long-term and short-term measures.

Nevertheless for Montenegro a good water management and cooperation on the water are crucial factors, as the country gives importance to the improvement of the tourism that is also a very important segment of the economy in the country.

⁸ Boskovic, M and Bajkovic, Ivana. *Waters of Montenegro*. Hydrometeorological Institute of Montenegro. Accessed: 04.05.2011 Available at: http://balwois.com/balwois/administration/full_paper/ffp-870.pdf

⁹ *Ibid*

Recently there has been a technical discussion on the implementation of “EU Water Framework Directive across the South Easter Europe in cooperation with the Ministry of Agriculture, Forestry and Water Management of Montenegro.”¹⁰

The project, “Strengthening of the regional cooperation and networking in the forestry and water management sector and sustainable development in the river basins of the South-Eastern European countries”, aimed “regional networking and cooperation, linking different stakeholders and strengthening the exchange of experiences, knowledge and joint development of the participating countries from South Eastern Europe”¹¹. In the project are also taking part Macedonia, Albania, Kosovo and the other countries of South East Europe.

Thus this project indicated on the fact that there is an international support to encourage cooperation in the Balkan region.

Trans-boundary Water Management in Montenegro

March 2008, Montenegro has been a host of the Capacity Building Workshop "Stakeholder involvement in Trans-boundary Water Resources Management" “organized in Podgorica by the Global Water Partnership-Mediterranean (GWP-Med) and the Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO/ECSDE) in cooperation with the Montenegrin Ministry of Tourism and Environment”¹². The event was also supported by the European Commission. The workshop has highlighted important objectives on “the public participation in the shared water management and the stakeholder’s involvement process”¹³.

In regard to the trans-boundary water management for Montenegro is important that the country takes part in many projects that deal with these issues. Montenegro is active participant for improving and maintaining trans-boundary water management.

Water Management in Kosovo

“The Government of Kosovo adopted the Kosovo Environmental Strategy (KES) in July 2004”¹⁴. This has been an important step of Kosovo towards improving the environment and establishing strategies for achieving sustainable development.

The formulation of the strategies, also incorporate seven priority problems, such as, climate changes, acidification, biological diversity, water, urban environment, coastal areas and waste.

¹⁰ Regional Rural Development Standing Working Group of South Eastern European. March 14-17, 2011, Herceg Novi, Montenegro. Available: <http://www.seerural.org/?p=3597>

¹¹ *Ibid*

¹² Trans-boundary Waters Information Exchange Network for the South Eastern Europe. Capacity Building Workshop, Podgorica, Montenegro. 25-17 March, 2008. "Stakeholder involvement in Transboundary Water Resources Management". Available at: <http://www.watersee.net/podgorica.html>

¹³ *Ibid*

¹⁴ *Kosovo Environmental Action Plan 2006-2010*. Pristina 2006. Ministry of Environmental and spatial Planning. Available: http://www.ks-gov.net/mmph/document/english/Kosovo_Environmental_Action_Plan.pdf p. 9

However, Kosovo is dealing with the fact that there is a “limited water reserves which in the future will be a limiting factor for the economic and social development of the country”¹⁵. Kosovo is facing difficulties with the lack of drinking water. It is estimated that “more than 80 municipalities in Kosovo have not enough drinking water”¹⁶. According the UN and OSCE representatives, Kosovo has a real problem with the drinking water to such extend that in the future may have to import it. Besides that there can not be done significant improvements as according to the research, there is corruption in the water sector. Another factor is that the water is not equally distributed. According to the statistics “only 44-50% of the Kosovo’s population has access to water supply systems, which are managed by 32 municipal companies (now coordinated by 7 regional water companies).”¹⁷

Thus the main problem with the water management in Kosovo is the limited water resources and the impact of the climate change that may have on the country, such as rapid increase in floods and draughts. The impact of the climate change will be greater as there is no adequate water management in Kosovo.

Trans-boundary Water Challenges in Kosovo

Kosovo is rich with high level “domestic water resources with 80%, while only 10% are transit water”¹⁸. Accordingly “Kosovo Rivers cross the border with Serbia in the three points, one with Macedonia and two with Albania”¹⁹. In order to establish a good cooperation and trans-boundary management, Kosovo and the river sharing countries need to dedicate on respect, peace, understanding, and sustainable development, to overcome the trans-boundary water issues. Accordingly, there have been more than 200 bilateral and multilateral agreements related to trans-boundary waters. In this respect “the United Nations World Water Day (March 22nd 2009)”²⁰ concentrated on the trans-boundary water topics, such as “Shared Water, Shared Opportunities”.

The trans-boundary management in Kosovo is complied in accordance with the Law on Waters, with the policies of the European Union and other international agreements.

¹⁵ op.cit., p15

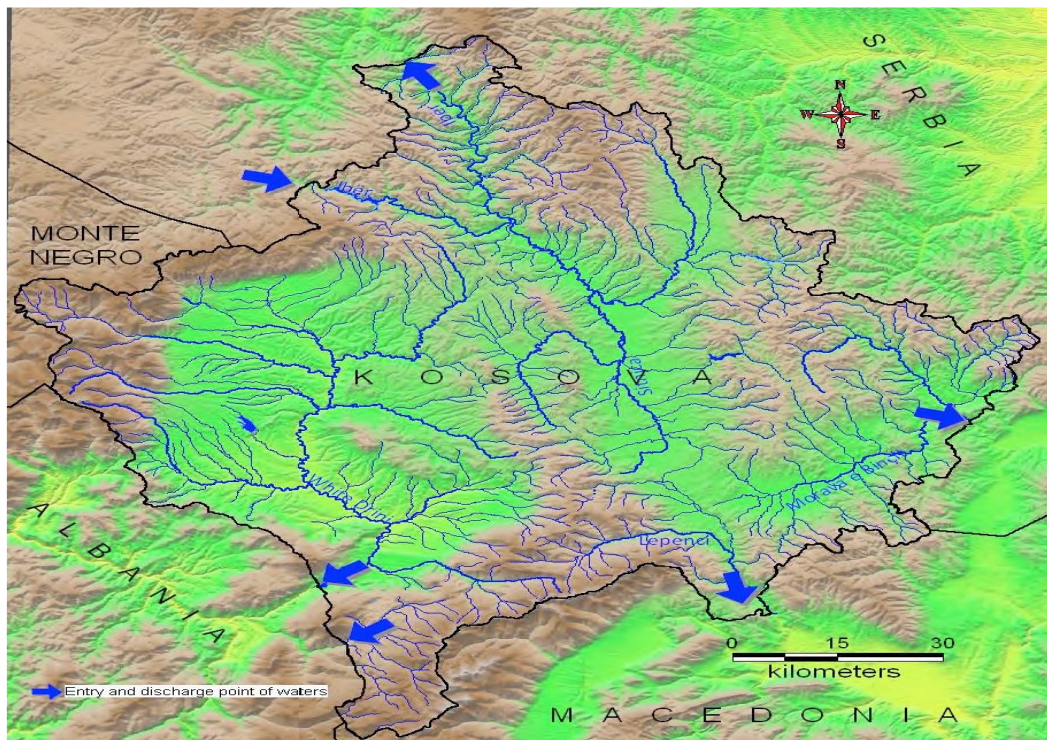
¹⁶Water Resources of Western Balkan. [Online]. Accessed: 06.04.2011 Available at: http://i-scoop.org/fileadmin/download_files/WATERS_2_.pdf

¹⁷ *Kosovo Environmental Action Plan 2006-201*. op.cit., p.30

¹⁸Ruzhdi P, Vahdet P, Arsim E, Valbon Bytyqi. 2010. Water Resources Challenges in Kosovo and their Trans-boundary Impacts. Pristina, Kosovo. Available: http://balwois.com/balwois/administration/full_paper/ffp-2042.pdf p.1

¹⁹ *Ibid*

²⁰ *Ibid*



The discharge point of main water flows in Kosovo to neighbour countries;

Available at: Ruzhdi P, Vahdet P, Arsim E, Valbon Bytyqi. 2010. Water Resources Challenges in Kosovo and their Trans-boundary Impacts. Pristina, Kosovo. [Online].

http://balwois.com/balwois/administration/full_paper/ffp-2042.pdf p.3

In regard to Kosovo-Macedonia shared Lepenci river, there haven't been estimated any serious issues, except for the ecological circumstance.

Further the border line with Kosovo and Albania

Climate Change and the Western Balkan Countries

The awareness of the Western Balkan countries on the consequences of the climate change and the possible measures to prevent more disastrous affects is not on a highest level. Meaning the people are not well educated on the climate change consequences and the possible measures they can take to prevent bigger negative costs.

In Macedonia for instance the climate change does not take a priority as an issue, still the consequences will be devastating as the country has a poor infrastructure and has not been committed on taking any serious measures.

Kosovo, as the other countries of the Western Balkan regions, it is not very involved and aware of the climate change consequences and effects as well. In this regard it is vital for Kosovo to establish a national policy by which it can focus on the climate changes issues and to implement national body dealing with it in the future.

However Montenegro has taken more participation and involvement on finding solutions and building measures on the climate changes issues. As such “the Initial National Communication on Climate Change of Montenegro to the United Nations Framework Convention on Climate Change (UNFCCC) is a document of special importance, both for the fulfilment of the assumed obligations following the ratification of the Convention and the Kyoto Protocol, and because of the contained information which will serve as the basis for future activities relating to climate change in Montenegro.”²¹

The climate changes predicted for Albania include increased temperatures, decreased precipitation and reduction of water resources and arable land. According to the analysis, “the most vulnerable area is Albania’s coastal zone, while the sectors highlighted as most vulnerable are water resources, ecosystems, agriculture, electricity and tourism”²².

In addition high prioritized is also the Drini River because future climate changes are expected to negatively impact the river flow. The negative effects will be devastating as will affect the generation capacity of hydro power plants. This is especially noteworthy, “given that over 95 percent of Albania's electricity comes from hydro sources”²³. Thus being aware of the consequence, in recent years there have been more initiations, on regional but mostly on international level, in order to protect from the potential negative effects of climate change.

Conclusion

The Western Balkan region is rich with clean water; however the management of the resources is not on the highest level. Although there are efforts to improve the water management and the cooperation on trans-boundary issues, still the level of awareness is not very high and most of the people are not aware of the consequences of the climate change and pollution that may have on the quality of the water. Nevertheless we can see also the involvement of international organizations and more developed countries in the Western Balkan region, aiming to facilitate cooperation among the countries and to educate the responsible bodies and the people on important issues such as, the collaboration with the local farmers to reduce their negative environmental impacts (pesticides, water and soil use pattern, etc) and to encourage trans-boundary cooperation and promote sustainable development in the region.

They also encourage the public participation in the shared water management and the stakeholder’s involvement process, by also providing workshops and conferences that elaborate on the water management issues and solutions.

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²¹ Climate Change in Montenegro. 2010. [Online]. Available at: http://www.unfccc.me/eng/National_communication.asp

²² United Nation Development Program Albania. 2007. *Climate Change and Albania*. [Online]. Available at: <http://www.undp.org.al/index.php?page=detail&id=42>

²³ *Ibid*

- Climate Change in Montenegro. 2010. [Online]. Available at: http://www.unfccc.me/eng/National_communication.asp
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