

Water Resources Management in the Shkoder – Buna sub-basin

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Tirana, October 2008

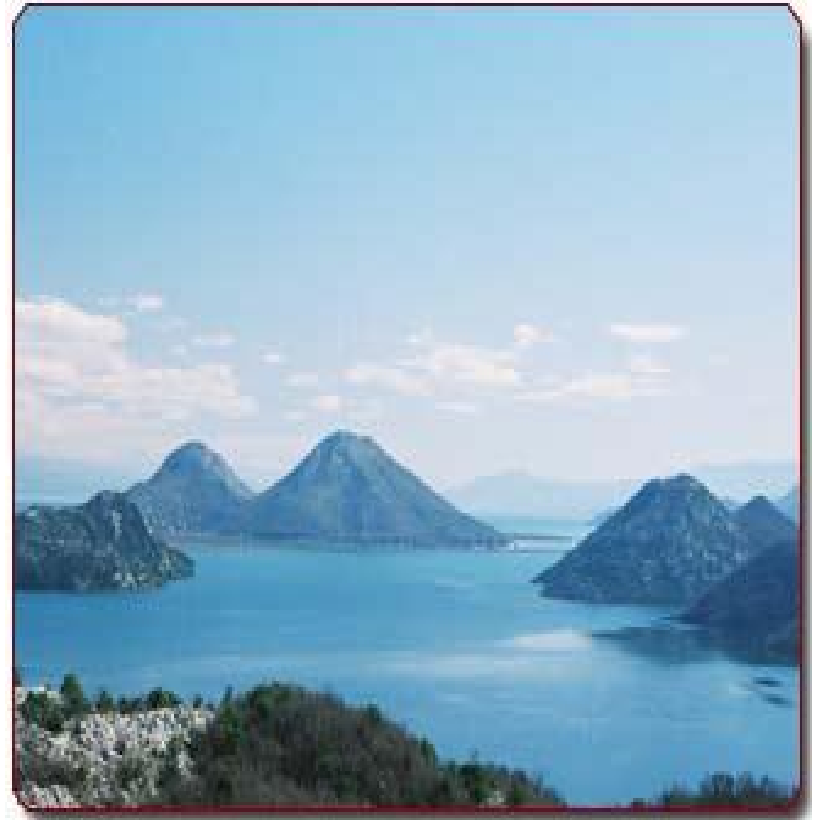
Identifying and Addressing Challenges

- I Broad area of Shkoder Lake and river Buna has a huge economic potential which is not sufficiently used today.



Identifying and Addressing Challenges

- I Very unpropitious hydrology regimes are one of the substantial restrictive factors for rational use of economic potential of the area.



Identifying and Addressing Challenges

- I Since 1846 river Drim changed river-bed and started to flow course river Buna; all water of river Drim emptied into the river Buna



- ø High uneven river flow and high amplitude water level of Shkoder Lake
- ø Over 16000 ha of soil is flooding

Identifying and Addressing Challenges

- I Purpose of this presentation is to give basic information about following:
 - ∅ Previous statement and problems in sector of water on broadly area
 - ∅ Previous work on selections of technical concepts for water regime regulation of Shkoder Lake and river Buna
 - ∅ Possible course and today's condition for carrying out problems of water on this area

Identifying and Addressing Challenges

Geographical characteristics:

- ∅ Shkoder Lake is the biggest lake in Balkan
- ∅ Its area is between 354 km² and 506 km²
- ∅ The water level at 5.0 to 10.0 m height above sea level
- ∅ 67.5% of the Shkoder Lake is in territory of Montenegro and 35% is in Albania
- ∅ From Shkoder Lake water flowed into the Adriatic Sea through river Bun



Identifying and Addressing Challenges

- I In 1846 due to big water, river Drim poured out from riverbed and started to run toward the Shkoder
- I Whole flow of river Drim directed to the riverbed of Buna river



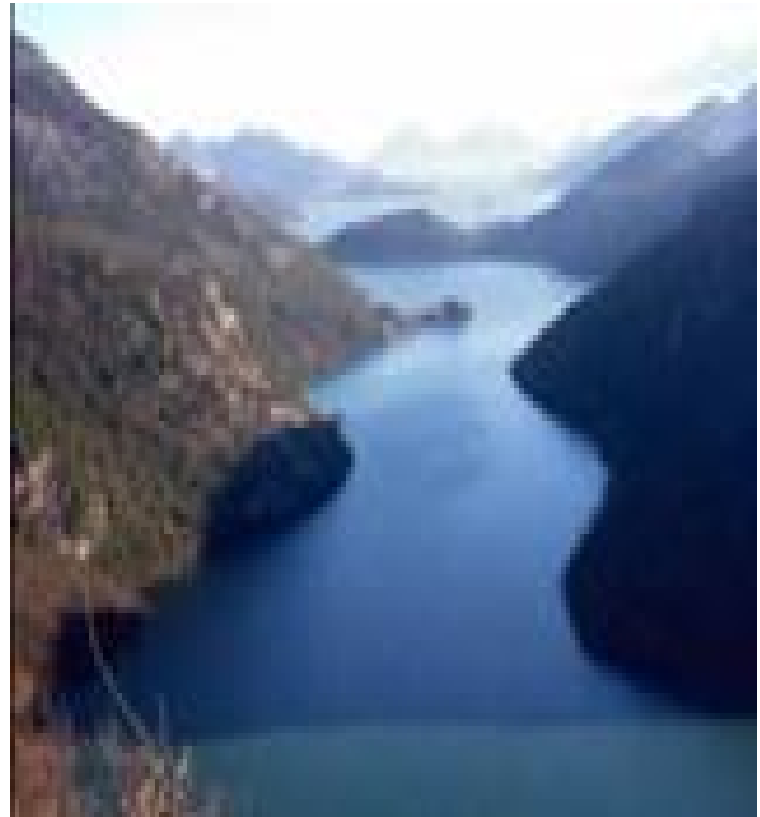
Identifying and Addressing Challenges

- I The basin of river Buna was rising for 3.5 times
- I The capacity of Buna's river-bad become insufficient



Identifying and Addressing Challenges

- It appears a rise of water levels, which significantly reduce possibility of flowing out from the Shkoder Lake, and in some period there is a possibility that water of the Drim flows into the Shkoder Lake → water level of the Shkoder Lake became higher → flooded coastal fields



Identifying and Addressing Challenges

- I The problem actual over 150 years
- I The last project documentation which has taken into consideration complex water management problems regulation waterbed of river Buna and regulation water level of Shkoder Lake was done in period 1980-1983 is contents:

Identifying and Addressing Challenges

1. The regulation of river Buna with changed regime of water of river Drim with partially separation its water and its download directly into the sea or in the river Buna



Identifying and Addressing Challenges



2. Reduction of maximum water level of Shkoder Lake from 9.82 to 6.5 meter height above sea level, whereat its minimum water-level stay on 4.5 m.

Identifying and Addressing Challenges

- I In accordance of river Drim waster's disposition, three possibilities have been analysed:
 - ∅ Disposition into sea,
 - ∅ Disposition into river Buna near Beljaja,
 - ∅ Disposition into river Buna near Behcelek through existing canal.

Identifying and Addressing Challenges

- I River Buna is main recipient of Shkoder Lake waters and level of water in lake depends of capacity of river Buna.
- I Capacity of river bad is limited because of carried sand and gravel, which was taken by the river Drim.
- I With intervention in Buna River bad it's possible to make effects on reduction of Shkoder Lake water level



Reason for following activities

- I Regulation regime water Shkoder Lake and the riverbed Buna has remarkable importance for global development of long board area between Montenegro and Republic of Albania
- I Negative hydrology regime of Shkoder Lake and river Buna becomes more and more brake of development of many economic activities on very long riverside area

Reason for following activities

- I Today's good relations between Montenegro and Albania make very prosperous ambient for beginning of intensive activities on solving very complicated problems in water sector, which are more than 150 years present in long board area, and which solutions may create very prosperous conditions for both states;
- I There is objective interest to continue sales by the river Buna and Shkoder Lake with implementation of modern parameters sales lane for transport of goods and also the attractive tourist activities.

Reason for following activities

- I Necessary level of protection from the water flow should be ensured on riverside area by Shkoder Lake and Buna to reduce risk for intensive agriculture production, settlement development as well as local economy capacity.
- I There is a need for making prosperity in modern, organized area Shkoder Lake and vale of river Buna, using natural fortunes (gravel, fish fund, tourist offers –hunting, fishing ..)

Reason for following activities

- I The sustainable development of the area tending to preserve all specific characteristics of flora and fauna, which requires the attention on regulation of water regime in order to minimize negative, and maximize positive influence.



Conclusions

- I Today's very satisfactory regime of water level Shkoder Lake as the statement riverbed Buna become huge limit for the complete development of the area.
- I The urgent need is to jointly find accepted, ecological and economy sustainable solutions for regulation –correction, regime of water Shkoder Lake and appropriate organizing waterbed river Buna.

Conclusions

- I For the whole area of Shkoder Lake and river Buna there is a need to form jointly more purposeful water management system which will ensure required level of water regime needs for solution of actual and expecting problems.
- I The choice of the optimal configuration of complex multi purpose water system which will be realised in few phases.
- I The scope of multi purpose water system is necessary to provide conditions for development of all branches of water sectors.

Conclusions

- I All projects need to be in accordance with sustainable development.
- I As soon as possible it is necessary to adopt for this area defined concept for development of water strategy for all branches of water sectors.
- I In aim of development of observed area for both countries it is necessary to start as soon as possible with activities which will solve existing and possible problems.

Expected Goals

- I Maximum water level need to be lower because of protection of observed area from flood and providing more land for development of agriculture.
- I Water level of Shkoder Lake needs to provide good condition for sustainable development of flora and fauna.
- I The regulation of the river Buna riverbed should ensure the stability of the riverbed for all expected flows.

Thank you fro your attention !

