

**Water Resources Management  
in the Drini River basin:  
Identifying and Addressing Challenges**

**Menaxhimi i Rezervave Ujore  
ne Basenin e Drinit :  
Identifikimi dhe Adresimi i Sfidave**

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# Water Resources in Albania

## ***Some facts :***

- Annual Rainfall 800 - 2000 mm.
- 40 billion m<sup>3</sup> or 13000 m<sup>3</sup>/capita/year
- 152 Rivers
- 887 lakes and reservoirs
- Coverage of the Albanian watershed is around 43.305 km<sup>2</sup>
- Albania receives one third of its water resources from its neighbouring countries.
- Two of its major rivers (Drini and Vjosa) are of trans-boundary nature and it shares its three major lakes (Lake Ohrid, Prespa and Shkodra).

## ***Disa Fakte:***

- Rreshjet vjetore 800 - 2000 mm.
- 40 miliardë m<sup>3</sup> ose 13000 m<sup>3</sup>/frymë/vit
- 152 lumenj
- 887 liqene dhe rezervuarë
- Baseni hidrografik i Shqipërisë është 43.305 km<sup>2</sup>
- Një e treta e rezervave ujore sipërfaqore në Shqipëri vjen nga vendet fqinje
- Dy lumenjtë kryesorë Drini dhe Vjosa dhe liqenet e Prespës, Ohrit, dhe Shkodrës janë ndërkuftarë.

## Institutional framework related to water resources management

- Ministry of Environment, Forestry and water administration
    - Water administration
    - Fishery and aquaculture
    - Water monitoring
  - Ministry of Agriculture, Food and Consumer Protection
    - Irrigation and Drainage
  - Ministry of Public works, transports and telecommunications
    - Water supply and waste water
  - Water Regulatory Entity for economical and regulatory instruments
  - National Council of Waters, headed by prime-minister
  - Watershed Councils , headed by the Prefects of the Regions
    1. Drini-Buna
    2. Mati
    3. Ishem-Erzeni
    4. Shkumbini
    5. Semani
    6. Vjose
  - For each Watershed Council there is a Water Agency. These agencies are executive units and are part of the MoEFWA structure . They are legal and technical bodies of the Watershed Councils.
- Ministria e Mjedisit, Pyjeve dhe Administrimit te Ujerave eshte Ministria kompetente per
    - Administrimin e Ujerave
    - Peshkimin dhe akuakulturen
    - Monitorimin e ujit
  - Ministria e Bujqesise , Ushqimit dhe Mbrojtjes se Konsumatorit
    - Per ujitjen dhe kullimin
  - Ministria e Puneve Publike, Transportit dhe Telekomunikacionit
    - Ujesjellsat dhe kanalizimet
  - Enti Rregullator I Ujit
    - instrumentat rregullator dhe ekonomik te furnizimit me uje dhe te kanalizimeve
  - Keshilli Kombetar i Ujit
  - Keshillat e Baseneve Ujembledhes
    1. Drini-Buna
    2. Mati
    3. Ishem-Erzeni
    4. Shkumbini
    5. Semani
    6. Vjose
  - Per cdo KBU funksionojne 6 Agjencite e Ujit, te cilat jane struktura ekzekutive qe varen nga MMPAU dhe sherbejne si struktura teknike dhe ligjore prane cdo KBU-je.

# Legal framework

- Law on water resources: 1996, last amendment 2007
  - Establishment of the priorities of using waters
    - For consumption
    - Discharge
    - And non consumption purposes
  - Establishment of Rules and procedures on
    - Permitting / authorization / and concession
  - Establishment of the institutional structures for water management
- Relevant legislation on waters such as irrigation, fishery, water supply, concession, etc.
- Bilateral and multilateral agreement for trans-boundary waters and related issues:
  - Decision of the Council of Ministers “On the establishment of the Governmental Commission on water issues with neighbouring countries”. (Greece, FYR of Macedonia, Kosovo, Montenegro)
  - MoU in the field on environment protection and sustainable development on Ohrid lake (AL-MK), Shkoder lake (AL-MN), head of governments declaration on Prespa Park 2000 (AL-MK-GR), MoU with Kosovo, etc.

✓Ligji “Per rezervat ujore” i 1996, amendimi i fundit i 2007

•Percakton strukturat per menaxhimin e ujit.

•Percakton prioritetet e perdorimit te ujit

–Per furnizimin e popullsise

–Per perdorim ne bujqesi

–Per prodhim hidroenergjie

etj

•Percakton rregullat dhe procedurat per lejet, autorizimet dhe koncensionet

✓Aktet ligjore sektoriale per ujin si per ujitjen dhe kullimin, peshkimin, perpunimin e ujerave te ndotura,per digat,per sektorin e ujesjellsave, etj

✓Marreveshjet dhe memorandumet e bashkepunimit shume-paleshe dhe ato bilaterale me vendet fqinje

•Liqenet e Ohrit, Shkodres, Parkun e Prespes etj

•Marreveshjet per ujerat kufitare me Malin e Zi, dhe Greqine

# Water monitoring in Albania

- Environmental indicators
  - Biological monitoring of coastal waters
  - Monitoring of groundwater
  - Wastewater discharge monitoring
  - Monitoring of surface waters, rivers and lakes
- Monitoring Institutions
  - Institute of Public Health
  - Geological survey
  - Center for energy and water (Polytechnic University)
  - Agency of Environment and Forests

- Treguesit e monitorimit
  - Monitorimi biologjik
  - Monitorimi kimik
  - Monitorimi i ujerave nentokesore
  - Monitorim i shkarkimeve
  - Monitorimi i ujerave siperfaqesore, lumenj, liqene
- Institucionet e Monitorimit
  - Instituti i Shendetit Publik
  - Sherbimi Gjeologjik
  - Qendra per energjine dhe Ujin ne Universitetin Politeknik
  - Agjencia e Mjedisit dhe Pyjeve

etj

etj

# Drini River Basin

- Drini basin is the biggest basin in Albania, covering a quarter of the country's surface and discharging half of the country's water quantity into the Adriatic and Ionian seas.
- The total surface of this basin is 8200 km<sup>2</sup> and collects the waters of a surface of 19.582 km<sup>2</sup>:
- From this area 14.173 km<sup>2</sup> belongs to the Drini watershed and the rest to the Shkodra lake watershed.

- Baseni i Drinit eshte baseni me i madh ne Shqiperi duke zënë  $\frac{1}{4}$  e siperfaqes se vendit dhe duke shkarkuar  $\frac{1}{2}$  e ujit qe shkarkojne lumenjte e Shqiperise ne detet Adriatik dhe Jon
- Siperfaqja totale ne Shqiperi eshte 8200 km<sup>2</sup> dhe mbledh ujerat e nje siperfaqe prej 19.582 km<sup>2</sup>:
- 14.173 km<sup>2</sup> i takojne basenit te Drinit dhe pjesa tjeter i takon basenit te Liqenit te Shkodres.

# Main activities identified on Drini River basin

- About 570 000 inhabitants live within the Drini watershed in Albania in 80 communes and 11 municipalities.
- **Main activities** : Agriculture & livestock , Forestry & Pasture, Industry –mining , Fishery , Tourism & ecotourism.
- **Hydro-energy**
  - The cascade of Drini river produce 93% of the total hydro-energy in Albania with the power installed of 1,350 MW
    - Fierza,
    - Koman
    - Vau i Dejes.
  - Two new hydro-power plants are planned to be constructed : In Skavica (Diber) with an installed power of 350 MW and in Ashta (Shkoder) with a power of 44 MW

- Ne basenin e Drinit jetojne rreth 570 000 banore ne 80 komuna dhe 11 bashki
- **Aktivitetet Kryesore** : Bujqesia dhe blegtoaria, Pyjet kullotat, Industria dhe Minierat , turismi dhe ekoturizmi.
- **Hydro-energija**
  - Kaskade e Lumit Drin prodhon 93% te hidro energjise elektrike ne shkalle vendi me nje fuqi te instaluar prej 1,350 MW
    - Fierza,
    - Koman
    - Vau i Dejes.
  - Dy hidrocentrale te reja jane ne plan per tu ndertuar Skavica ne Diber me fuqi prej 350 MW dhe Ashta ne Shkoder me fuqi 44 MW

# Soil erosion

- Forests in lower areas as well as shrubs are object for fuel wood and livestock food causing land degradation, soil erosion, flooding, filling of reservoirs with soil and reduction of the water that infiltrates in the ground.
- Forest fires etc.
- Results show that natural soils disposed through erosion is about 24 % of the territory, less disposed through erosion phenomenon is 59 % of the territory and not disposed towards erosion is 17 % of the territory.

- Pyjet ne zonat e uleta si dhe shkurret kane qene objekt shfrytëzimi per dru zjarri dhe ushqim per blegtorine duke shkaktuar degradim te tokes, erozion, permbytje, mbushje te rezervuareve, dhe reduktim te infiltrimit te ujit per ne shtresat nentoksore.
- Zjarret ne Pyje
- Sipas studimeve siperfaja e tokes e predispozuar ndaj erozionit eshte 24 % , me pak e predispozuar eshte 59 % dhe e mbrojtur mire nga erozioni eshte 17 % e siperfaqes se tokes.

# Main problems

- The damage of river bed in some parts as the result of the natural deviation and human intervention
- High erosion in the basin, as the result of the topography and deforestation.
- Weak and non-stable institutional structures for River Basin management;
- Low participation of stakeholders in decision making;
- Insufficient legislation enforcement;
- Low level of water tariffs collection;

- Demtimi i shtratit te lumit ne disa pjese te tij si rezultat i devijimit natyral dhe nderhyrjeve njerezore.
- Erozion i larte ne basen si rezultat i topografise dhe shpyllezimeve.
- Struktura institucionale te dobeta dhe te paqendrueshme per menaxhimin e basenit ujembledhes;
- Pjesmarrje e ulet e aktoreve ne procesin e vendimarrjes.
- Zbatim jo i majftueshem i legjislacionit;
- Nivel i ulet i mbledhjes se tarifave te perdorimit te ujit

# Main challenges to be addressed

- Legal and institutional challenges
  - The transposition of the Water Framework Directive is on going by elaborating the new Law on Waters. REC has already translated the WFD into Albanian Language:
  - Institutional strengthening and capacity building of the structures dealing with water management and related issues.
  - Strengthening the cooperation among neighboring countries
  - Elaboration of the inventory and integrated river basin management plans, taking into consideration trans-boundary aspects.
- Establishment of economical instruments (tariffs, fines and incentives)
- Strengthening the water quality and quantity monitoring system
- Public awareness and exchange of Information
- Identification and evaluation of the areas and activities with trans-boundary impacts, and elaboration and implementation of action plans for elimination of the consequences.

- Sfidat ligjore dhe institucionale
  - Transpozimi i direktives kuader te Ujit te BE e cila eshte ne proces me hartimin e nje ligji te ri per ujerat
  - Fuqizimi institucional dhe ndertimi i kapaciteteve i strukturave qe lidhen me administrimin e ujerave
  - Fuqizimi i bashkepunimit midis vendeve fqinje
  - Hartimi i inventarit dhe i planeve te ineguara te menaxhimit te basenit ujembledhes, **duke marre ne konsiderate aspektet nderkufitare.**
- Perfshirja e instrumentave ekonomike si tarifate, gjobat dhe instrumentet lehtesuese
- Fuqizimi i sitemit te monitorimit te ujit si nga pikepamja cilesore ashtu edhe nga pikepamja sasiore
- Ndergjegjesimi i publikut dhe shkembimi i informacionit
- Identifikimi dhe vleresimi i zonave dhe aktiviteteve me impakte nderkufitare, dhe hartimi dhe zbatimi i planeve te veprimit per eliminimin e pasojave.

**Thanks for Your Attention!**