

# **Water Quality in Moldova and role of NGO in the improvement and protection of water resources.**

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# Assessment of the current situation of Dniester river and ecosystems





De facto, currently three hydropower constructions exist on Dniester river:

- **Hydropower station Dniestrovsk HPS-1** on the territory of Ukraine
- **Hydropower station HPS-2** on the border of Moldova and Ukraine
- **Dubasari hydropower station HPS** on the territory of Moldova
- **The undergoing construction –the hydroaccumulation station.....**

# What are the main outcomes of the project?

- **HAPS, - hydropower accumulation power station which will work in turbine-pumping regime, here the biggest world generator will be installed - 973 MW.**
- **An accumulation reservoir, paved with concrete on the right bank of the river...**
- **Leveling of the left bank of the river which brings an increase in the river bed, in fact another reservoir is being built (this was not foreseen in the project ).**
- **The water of Dniester will circulate between two reservoirs through 7 underground pipes with a diameter of 7,5 m**

# The main scheme of HAPS





The reservoir will be located on carst hill,  
Photo taken during September 2006



**The crane on upper area of  
the mines with turbines**

**The view of turbine  
from above**



# Leveling of Dniester left bank



# **Conclusions of Ukrainian scientists concerning the project:**

## **Institute of Hydrobiology UAS**

- **HAPS can lead to ecological catastrophe in the Middle and Inferior Dniester, especially in the shallow areas ...**
- **No compensations could replace the losses...**
- **It is very important to preserve the unique Dniester delta.**



## **Institute of Geophysics of UAS–**

- The undergoing hydropower construction HAPS is situated in the seismic zone and could increase the seismic activity from 6 to 7 degree.**
- An increase in erosion and soil destruction was already encountered**
- A detailed monitoring and additional audit is required...**
- It is important to assess the aspects of extreme environmental conditions...**

# **Dnestrovk HAPS violates the following international conventions and standards**

- ESPOO Convention for the assessment of environmental impact in transboundary context (a.3,6)
- Intergovernmental agreement between Ukraine and Moldova on transboundary waters (a.2)
- UN Convention on the protection of transboundary water bodies and international lakes (a 2.6.10.14)
- Ramsar Convention
- International Dam Convention
- Water and Health protocol

**Today the problem of protection and sustainable use of water and biological resources of Dniester river depend firstly on the agreement of nature protection activities both from Moldova and Ukrainian side.**



# How Dniester should be during summer lowest water level and spring high water level



**Being aware of the current situation, Academy of Science of Moldova, in collaboration with NGO Eco-Tiras , ECOTOX, has undertaken the following actions:**

- Public hearing with scientists, governmental officials, parliamentarians, NGO,**
- An open letter was sent to the president of Moldova, government of Moldova and Ukraine, international organizations**
- Presentations were given to parliament, intergovernmental meetings within the Ministry of Foreign Affairs**
- 6 TV and 4- radio broadcasts, publications in newspapers**

# Recommendations

- **Employ a legal framework to the process – offer to Moldovan side the technical and economic argumentation of the project**
- **Considering the serious impact of the hydro constructions lower Dniester ecosystems, wetland territories and socio-economic consequences, to initiate an international impact assessment involving the secretariat of ESPOO, Helsinki and Ramsar conventions)**
- **There is necessary to implement models for the elaboration and implementation of water release models in the Medial and Inferior Dniester for ensuring the functionality of aquatic ecosystems, including 4 ramsar sites (wetlands of international importance) for water protection.**



- Considering that the negotiations have started between Ukraine and Moldova for the elaboration and signing of the agreement on Dniester river basin within the framework of OSCE to facilitate the process of signing the agreement, involving all the problems which relate to Dniester river.
- The whole process should be transparent and involve public participation

# Dniester, lower part of dam of buffer reservoir Naslavcea





# Assessment of the current situation of Lower Prut river and ecosystems of rivers Cahul and Ialpuș





# MONITORING OF AQUATIC MACRONEVERTEBRATES

*The goal of the project- involvement of children in monitoring and protection of small rivers and streams*

*On the territory of Moldova 3083 temporary and permanent small rivers and streams are flowing*

*Streams with a length of less than 25 km are dominating, they account for 97,5% of the rivers flowing on the territory of the country*

- All the small rivers and streams are subject to intensive anthropogenic pressure (organic and nutrient pollution)*

# Investigated ecosystems









- **Complex assessment of water quality**
- **Identification of main pollution sources**
- **Study of water and terrestrial biodiversity**
- **Discussions with local stakeholders with the focus of the protection of water ecosystems, ecosanitation issues for the conservation of Danube and Dniester delta.**
- **Elaboration of the recommendations for the Ministry of Ecology and Health on the protection and sustainable use of water resources and unique animal and plant resources**

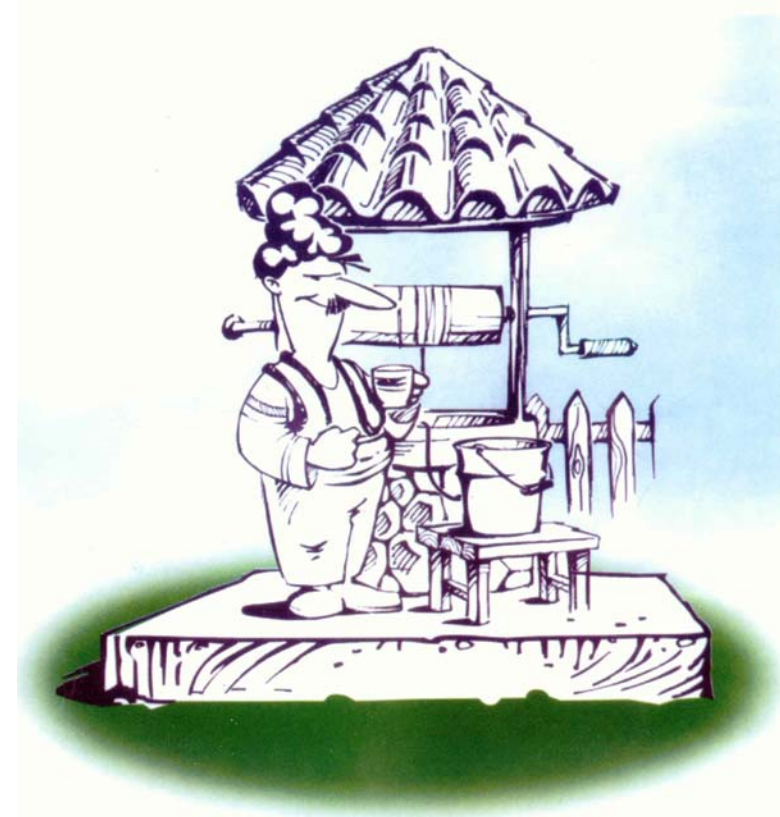
- **Our projects are related to the solution of the issues of water supply and sanitation as Moldova is a country with scarce water resources, the main arteries being Dniester and Prut rivers which are in a transboundary context.**

# Dnister, Prut and ECOTOX



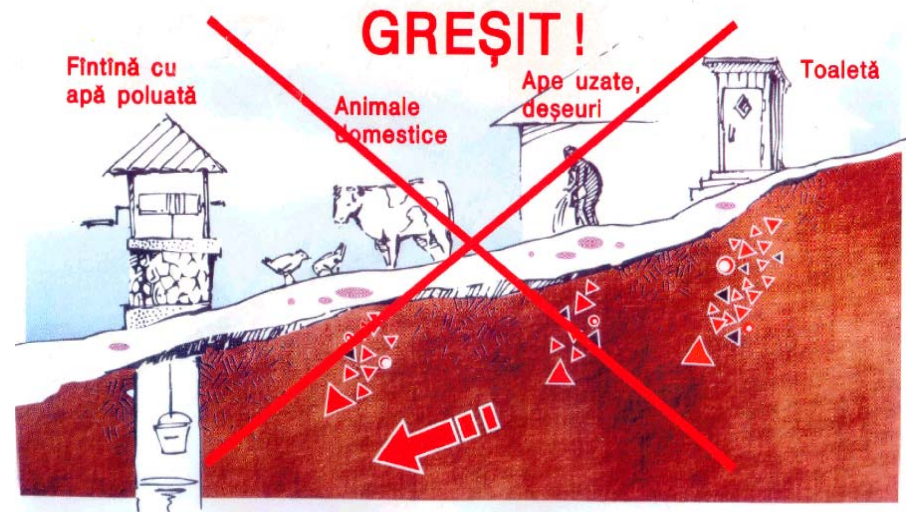
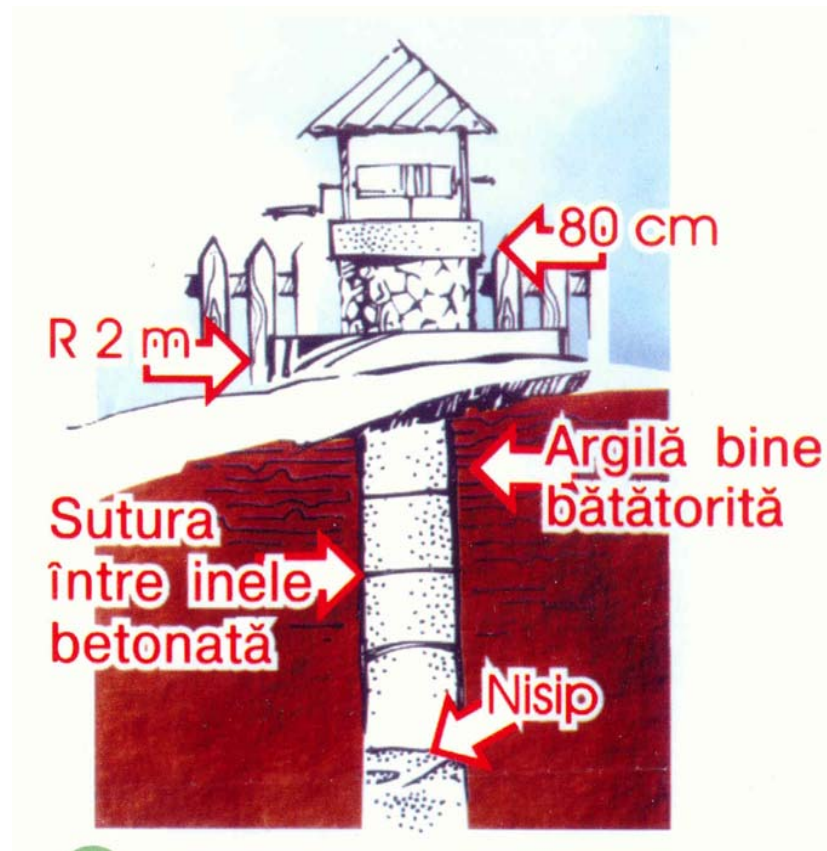
**Through the increase in awareness on the state of environment to a more sustainable way of living**  
**Water we drink – the right to choose for sake of health**

- *Over **65%** of the wells from your sector do not correspond to the hygienic norms regarding the placements and arrangement.*
- *The Association of ECOTOX have revealed that more than **89%** of the examined samples contain nitrates and other chemical substances, exceeding the MAC levels and over **52%** do not correspond to microbiological requirements.*
- *Approximately **1 million** of people from rural communities of Moldova use water that contain nitrates above MAC level (45 mg/l).*





*Remember – your health and the health of your children depend on water you drink, so you can choose the right water for sake of your health.*



# **The aspects reflected in our recommendations**

- **What are the polluting sources for drinking water**
- **How can we improve the quality of drinking water**
- **Human health depend on quality of drinking water, that is consumed!**



# MFS start-up meeting, Visit to village Criscauti





*Thanks for attention*

