

## NATO PILOT STUDY PROJECT

“Sustainable use and protection of groundwater resources - transboundary water management - Belarus, Poland, Ukraine”

5<sup>th</sup> meeting Jerusalem (Israel) 20-23 April 2009.

Many of us find connections between environmental problems and national or global security insignificant. Although previous years showed growing understanding for potential interdependence between environmental degradation and its influence on widely understood security. Environmental degradation and contamination, transport of hazardous materials as well as inequitable access to natural resources in transboundary areas increase the probability of conflict and could cause risk to humans or even to whole nation. The next extremely sensitive problem is the management and protection of water resources in transboundary areas.

Water is of profound importance for biodiversity and the protection of water resources and prerequisite for environmental sustainability. The water protection is also crucial for human life and is, therefore, prime policy objective for the European Union. According to Frame Water Directive water is not a commercial product like any other but rather a heritage which must be protected, defended and treated as such. Water is also an element that gets little notice of political and administrative borders. The history of interest in issues of water management on transboundary scale is relatively new phenomena, growing during the last few decades. These issues include globalization, the development of civil society and increasing competition among economy sectors for limited natural resources. Water management in a transboundary context is much more complex and multifaced than water management within one nation state. Transboundary waters are interwoven with landscape, with societies and culture, and with political systems. Water management in Poland is based on European Union's policy. The concept of multi-level governance implies that there is a multilevel network of interactions among wide range of actors - state and sub-state, public and private, national, transnational and supernational, NGO's and others. Environmental co-operation can thereby act as an important tool for preventing conflicts and promoting peace among communities.

Three-years' experience acquired during the NATO Pilot Study Project “Sustainable Use and protection of Groundwater Resources - Transboundary Water Management - Belarus, Poland, Ukraine” force to prepare some summary. We have to rise following questions: What are the effects of our work? What should be the next step? The meeting which took place in Jerusalem on 20-23 April 2009 was focused on discussing those issues.

The programme of the meeting was planed to give its participants short overview on the main goal of the project which is to prepare an expert platform for discussion about rational groundwater management and the efficient way of protecting transboundary resources. Up till now the project has faced a great interest and number of international experts took part in four meetings organized in Belarus and Ukraine. It is very important for the project to create the united methods of

transboundary groundwater monitoring system among Belarus, Poland and Ukraine and identify the methodology to protect environment in Bug river basin. The project should be a base for ideas exchange, development of a new environmental technology as well as a platform for know-how database. During the previous meetings the water management systems of all countries bordered with Poland from east have been presented. There are many common issues but they differ in some points. So it is very important to work on the united decision-making processes which could be implemented in every riparian country to efficiently manage the water system.

Ongoing NATO project is not the only one concerning the environmental issues of Bug river basin. It is very important to not only strengthen cooperation among neighbouring countries, but also encourage different groups of scientists having close-subject projects to exchange their experience. That is why two environmental projects were presented during the meeting. The first one was the neighborhood INTERREG III C project lead by Institute of Environment Protection and Regional Board of Water Management in Warsaw concerning creation of the Polish-Belarusian-Ukrainian Water Policy in the Bug River basin. The main goal of this project is the intensification of the Polish-Belarusian-Ukrainian cooperation in the Bug River basin water management. The works are focused in 6 main thematic components:

- legal and organisational documents
- creation of common hydrographic map
- Water Framework Directive (WFD) implementation in Bug river basin
- inventory of all available water management databases
- trainings
- promotion

It has been recognized by the international community that the Western Bug River Basin, comprising significant areas of Ukraine and Poland, is under serious ecological stress. The long-term monitoring data shows constant, severe environmental impacts to water quality of the Western Bug River and its tributaries. Ukrainian company Water Management Center started in 2008 UNIDO financed project "Integrated Environmental Evaluation Western Buh River Basin (Ukraine and Poland) PHASE I: Baseline Assessment and Analysis". The effects of final report was prepared in the framework of the UNIDO project "Ecological conditions of the basin of the Western Buh river: cause -and-effect analysis and transboundary influence".

The final document introduce:

- identification of major environmental problems in the basin;
- the methodology developed for the selection;
- evaluation and prioritization of Hot Spots;
- the results of the Hot Spots analysis;
- recommendations for the Phase II program;
- conclusion with concepts for downstream projects.

Transboundary water management and environment protection need a complex solution. The assumption of NATO project was to gather basic information about environment in neighboring countries as well as to organize an institutional system for that issues. That should allow to prepare fundamentals for the next steps projects. But creating international projects need funds. That was the reason for one of the main presentations of the meeting being dedicated to Financial dimension of resource mobilization for environmental project in Eastern Europe. Resource mobilization is a comprehensive process involving strategic planning for program funding, close communication and effective negotiation with donors, found management of resources, improving image and credibility of the Organization and ensuring good coordination among all partners. Potential partner's institutions requirements were presented and it should be useful information in construction of future projects applications.

During the field trip organized by Geological Survey of Israel the participants of the meeting visited the monitoring wells in Dead Sea area. The environmental problems of the Dead Sea area were presented. Lack of fresh water effecting in reduction of sea area is not the only problem that occurred there. The terrain left by salt water is exposed to subsidence processes.

On the last day the participants dealt with the questions: What would be the next steps to solve problems faced in transboundary area? How to develop the research technologies to get the best results? Which direction the actions should follow in a long term? The environmental issues are very complex and complicated. They depend on a many factors. Finally, after a long discussion a future vision was established. Expert forums dealt extensively with road mapping for the future project development, i.e. the identification of driving forces, key actors and major action to be taken to promote realization of the main issues. For building of a long-term vision the technology foresight, which is a systematic, participatory process gathering future intelligence, could be applied. Among most important issues to be taken into consideration we find:

- creation of knowledge database gathering potential environmental technologies to be used in transboundary research, people and institution engaged in the process;
- hot-spot assignation, with their prioritization;
- preparation of application for the international grant to equip the Belarusian, Polish and Ukrainian surveys with professional equipment for field measurements as well as chemical laboratories with analytical facility to establish united and comparable analytical network;
- establishing of international body to create united methodology for transboundary groundwater monitoring system;
- continuation of common cooperation to create new projects financed by international bodies e.g. UNIDO, Eastern Partnership, 7<sup>th</sup> Framework Programme and others.

Comparatively to other European transboundary river systems, a limited amount of presumptive research has been devoted to the Bug River basin. So previous experience obtained during the past meetings of ongoing NATO Pilot Study Project will be gathered in a book published after the Jerusalem conference.