

Further Perspectives of the Project “Sustainable Use and Protection of Groundwater Resources – Transboundary Water Management – Belarus – Poland – Ukraine

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The rational utilization of groundwater reserves is essential for our future existence. Our project is supported by the Committee on Science for Peace and Security (SPS) as a Pilot Study on the development of a transboundary water quality monitoring and assessment program between Belarus, Poland, and Ukraine with strong support from the USA and Israel. It is an important initiative of cooperation on monitoring, contamination migration and water management issues between central and eastern European countries. It is a part of the process of setting up a new strategy for mainstream shared groundwater resources, to reduce the possibility of conflicts and develop a sustainable system of regional stability. Developing this project is part of an integration process of Belarus and Ukraine into European water management system and cooperation between EU and neighborhood eastern countries which would guarantee development and stability in this part of Europe.

Participating countries took joint steps to show their will in improving the management of groundwater resources what made this project possible to work out. There is a long history of cooperation based on the principles of the UNECE Water Convention. Poland is an EU Member State, Ukraine is adapting its legislation to the laws of the European Union, while Belarus is a transition economy from the FSU. These three countries are Parties to the UNECE Convention on the Protection and Use of Transboundary Watercourses and International lakes (UNECE Water Convention) and have undertaken substantial activities on their shared transboundary water resources under this Convention. They are also parties to the Convention on Biodiversity (CBD) and the UN Framework Convention on Climate Change (UNFCCC) and are committed to sustainable environmental development within their border regions. These countries are eligible for UNDP and World Bank technical assistance. The national priority of these countries in relation to their shared water resources has been confirmed through the Joint Ministerial Declaration done at the Kiev Conference in 2005. This long term

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Fig. 1 The opening meeting – Transboundary Water Management in Bug Basin, Lvov (Ukraine) – May 2007

cooperation between these countries and their contribution in many basic organizations are a stable foundation for developing fields of activity in hydrogeology: preparation of balance of groundwater resources, assessment of factors affecting their formation, and implementation of protection systems (Fig. 1).

Since the consequences of water shortages could destabilize geopolitical environments and create political conflicts, moreover, reductions in water resource availability due to poor management practices or ineffective legislative controls could endanger global economic sustainability and put global security at risk. These problems are in the interest of security related programs. The Advisory Panel Environmental Security (ESP) within the *Committee on Science for Peace and Security (SPS)* is concerned with environmental issues that pose risks to security and often lead to regional or cross-border disputes. The management of water resources, the pollution of waterways, the sustainable consumption of vital resources are of interest to the Panel. Therefore on 20 October 2006, the proposal made by Poland to launch a pilot study on “Sustainable Use and Protection of Groundwater Resources – Transboundary Water Management – Belarus, Poland, Ukraine”, was approved under the new SPS Programme.

This pilot study made it possible to work out how to develop international cooperation on the implementation of transboundary water quality assessment. Our work should be continued as a second part of this pilot study program. The importance of the program and its effect upon security obliged us to keep it under *SPS Committee control and this is our plan for next step after finishing first part of the pilot study* (Fig. 2).



Fig. 2 The expert panel during the second meeting Groundwater Monitoring Systems, Minsk (Belarus) – November 2007

Costs of implementation and development of these innovative practices for transboundary water quality monitoring and assessment program between Belarus, Poland, and Ukraine are high. Therefore we are planning to apply for EU programmes which could cover the high costs of future steps which would entail building a monitoring system compatible to EU standards and should allow for sustainable groundwater management between the EU and neighboring eastern countries.

The proposition of a new project for Seventh Framework Programme (FP7) relates to existing trilateral cooperation on monitoring, contamination migration and water management issues between Belarus, Poland and Ukraine and Lithuania. It is concerned with problems of developing practices for monitoring, water-quality and quantity issues, and assessment between EU and neighborhood eastern countries. The new project should enable the exchange of data and information to strengthen, improve and better understand technical & scientific issues involved in using monitoring as a tool for sustainable environmental protection of ecosystems that have more then regional significance.

The general purpose of this new project is develop tools for quality assessment and protection of groundwater resources and land use planning management by the regional and local authorities and water users. The objectives are: to study the innovative methods of assessing groundwater resources and quality; to estimate the pollution risk, intrinsic vulnerability and land use of aquifers, taking into account the changing environment (climate changes and anthropogenic activities).

The Seventh Framework Programme offers several possibilities of support for such research activities. One of them is theme – Environment (including Climate Change) whose objectives, among other things are: to promote sustainable management of the natural resources by advancing our knowledge on the interactions between the biosphere, ecosystems and human activities, and developing new technologies, tools and services, in order to address in an integrated way, global environmental issues. Their emphasis are being placed on developing tools and technologies for monitoring, prevention and mitigation of environmental pressures and risks, and for the sustainability of the natural and man-made environment.

The research objective of such projects should contribute to assessing, reducing and preventing tensions and conflicts related to the depletion of natural resources and environmental services which are arising due to rapid environmental changes and/or natural and man-made hazards. Tensions could be related to the increasing competition at regional or global levels for natural resources and environmental services.

Another Seventh Framework Programme theme which may be suitable for a future project is Security. It's objective focus is to develop the technology and knowledge for the building capabilities needed to ensure the security of citizens from threats such as natural disasters and evolving technologies to the benefit of civil European security, to stimulate the cooperation of providers and users for civil security solutions, improving the competitiveness of the European security industry and delivering mission-oriented research results to reduce security gaps (Fig. 3).

International cooperation within Seventh Framework Programme is supported throughout all areas, and all topics are open to cooperation with third countries.



Fig. 3 New plans for cooperation presented during the fifth – Towards Future Cooperation, Jerusalem (Israel) – April 2009

Belarus and Ukraine belong to the International Cooperation Partner Countries (ICPC) and to the Europe Neighborhood Policy (ENP); Ukraine signed an agreement with the EC covering Science & technology (S&T). Various international cooperation actions under the different programmes of FP7 would be supported.

As an example: in 2010 cooperation with Africa is given priority and many topics have already targeted Africa. In the future much more attention should be given to the eastern European neighborhood. But to receive the “green light” as Africa has, much work needs to be done by the governments of these countries to pay attention to the EC regarding our transboundary regional problems.

What appears clearly after obtaining results of the Pilot Study supported by Committee on Science for Peace and Security (SPS) is that such development of international cooperation on implementation of transboundary water quality assessment would enable in sustainable use of groundwater reserves. Before us is a lot of work – first of all to make much more visible how essential for our future existence is rational utilization of groundwater reserves of our countries transboundary region, and also how important is cooperation on monitoring, contamination migration and water management issues between the central and eastern European countries. This development must go on for future sustainable development of our countries transboundary region.

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