

## IWRM National dialogue in Poland

THE NATIONAL DIALOGUE WAS HELD ON NOVEMBER 14, 2006 IN WARSAW BASED MINISTRY OF ENVIRONMENT.



The seminar was opened by the chair of GWP Poland, Prof. Janusz Kindler who welcomed Mr. Mariusz Gajda, the new Chairman of the National Water Management Administration. The new administrative body, working under Ministry of Environment, was established according to updated Polish Water Law on July 1, 2006. In Poland, the Ministry of Environment deals with water management policy and the strategy.

Mr. Gajda presented his paper "New governance arrangements for water management in Poland" which describes new proposal on how to overcome the institutional fragmentation of water management in the country between state government and the self-government authorities at the local, county and provincial levels. The keynote presentation was followed by a lively discussion. It came up that the success of water management planning largely depends on the will of different agencies and authorities involved in wa-

ter management to overcome potential conflicts of interest among them.

During the discussion with participation of Mr. Gajda who was answering several questions, the principal issue was how to overcome potential conflicts of interest between different agencies and authorities involved in water management. It's clear that not all of them will greet with enthusiasm the changes considered in the proposal presented. The second presentation was "Droughts in Poland" concentrating on severe drought that occurred in the summer of 2006. The final presentation was under the title "Implementation of EU Water Framework Directive in Poland - conditions for success". The dialogue, hosted by GWP Poland, provided an opportunity to discuss openly all difficult issues and different opinions.

More than 80 practitioners from all around the country attended the dialogue. In addition to regular GWP Poland partners, the venue attracted several newcomers as the topic of water management planning is currently on the top agenda in Poland. Based on demands of the participants, two more national dialogues are slated for early 2007. For more information, please contact Dr. Janusz Kindler, GWP Poland Chair, e-mail: janusz.kindler@is.pw.edu.pl. ■



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2<sup>nd</sup> phase of the national dialogue in Poland

## Calendar of Events

*National IWRM Dialogue in Slovenia*  
**April 22, 2007**  
Ljubljana, Slovenia

*National IWRM Dialogue in Romania*  
**April 25, 2007**  
Bucharest, Romania

*National IWRM Dialogue in Estonia*  
**May 9, 2007**  
Tallinn, Estonia

*National IWRM Dialogue in Moldova*  
**May 14-16, 2007**  
Chisinau, Moldova

*National IWRM Dialogue in Czech Republic*  
**May 15-16, 2007**  
Medlov, Czech Republic

*National IWRM Dialogue in Hungary, phase II*  
**May 31, 2007**  
Szabadkigyos, Hungary

*National IWRM Dialogue in Slovakia*  
**June 18, 2007**  
Bratislava, Slovakia

*International Tool Box seminar*  
**August 30-31, 2007**  
Nyiregyháza, Hungary

**First GWP CACENA, CEE and MED Inter-regional Partners Meeting**  
*Addressing EU Neighbourhood Policy from a water resources management perspective*  
**October 6-7, 2007**  
Varna, Bulgaria

*GWP CEE Regional Council Meeting*  
**October 8-9, 2007**  
Varna, Bulgaria

*6<sup>th</sup> IWA Conference on Wastewater Reclamation and Reuse for Sustainability*  
**October 9-12, 2007**  
Antwerp, Belgium

# Interview with Lucia Ana Varga, State Secretary, Romanian Ministry of the Environment and Sustainable Development

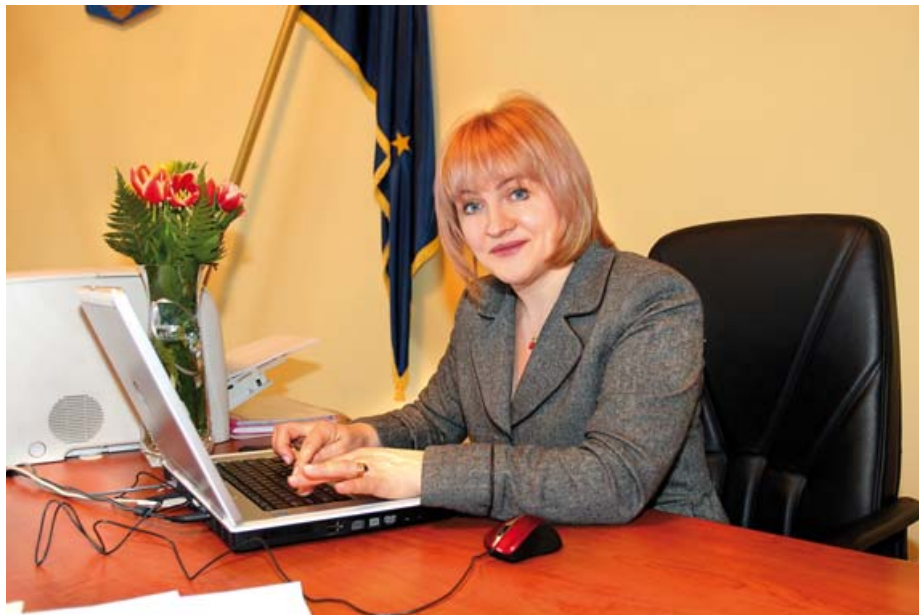
IN CONTINUATION OF OUR SERIES OF INTERVIEWS WITH THE MINISTERS OF THE ENVIRONMENT FROM THE 11 CENTRAL AND EASTERN EUROPEAN COUNTRIES, WHICH ARE PART OF GWP CEE REGION, WE BRING YOU THE INTERVIEW WITH STATE SECRETARY OF ROMANIAN MINISTRY OF THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT, LUCIA ANA VARGA.

State Secretary Lucia Ana Varga studied mechanics at the Technical University of Timisoara from 1986 to 1991. In 2001 she became a mechanical engineering candidate for a doctor's degree at the Faculty of Mechanics at the same university. From 1991 to 1998, Ms. Varga was a school teacher in Oradea. Afterwards she worked for the Bihor County Commissariat of the National Environmental Guard as an inspector and chief commissioner until 2005, when she was appointed State Secretary at the Ministry of the Environment and Water Management. During her ministerial career to date, Ms. Varga was elected President of the Bureau of the Meeting of the Parties on the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (2007). In January 2007, she took over the Presidency of the International Commission for the Protection of the Danube River (ICPDR) for one year. Between 1998 and 2006, she graduated from various training courses and seminars on the environment, law, communications and public relations, security and national defense – security and good governance and internal auditors. She speaks English fluently. Ms. Varga is member of the Liberal National Party.

**1. Water Talk: GWP defines Integrated Water Resources Management (IWRM) as a process which promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. How do you see the challenges of IWRM implementation in practice in Romania?**

As it was mentioned, the concept of Integrated Water Resources Management implies:

- the integration of all water categories: surface water, groundwater, transitional water and coastal water as well as quantitative, qualitative and biological issues of water;
- the integration of water use at the river basin level, which reveals the need for solving of



the resource - water demand equation and the fact that water resource protection requires use analysis at the river basin level;

- the integration of flood defense issues with aspects regarding conservation and the development of aquatic biodiversity;
- the integration of water resources in planning policies, taking into account the fact that water is one of the basic elements of life and at the same time a factor which determines socio-economic development, is often a limiting factor.

In the water field, Romania has successfully managed to cope with nearly all of these IWRM requirements through both the management system and the undertaken and foreseen activities aiming to obtain sustainable water development.

In this sense, at the national level, the Ministry of the Environment and Water Management carries out the policy in the environment and water management fields, the strategy and specific regulations for the development and harmonization of those activities within the general government policy, ensures and coordinates the application of the Governmental strategy within the respective fields of activity, thus achieving the role of state authority, synthesis, coordination and control. The Water Department covers the full area of activities related to water including the following Directorates:

- Directorate for the Prevention and Management of Emergency Situations, with responsibilities concerning flood protection and control and hydro-meteorological emergencies, coordi-

nating the unitary implementation of actions and measures for the prevention and management of specific emergency situations on the national level;

- Directorate for Water Resource Management, with responsibilities concerning quantitative and qualitative water management and especially concerning European Union aspects, the implementation of bilateral and multilateral agreements in the water field and coordination of the activities of the transboundary river basin districts;
- Directorate for Dam Safety and Water Cadastre, with responsibilities for regulating the operational regime of water resources and reservoirs and regulations on dam safety exploitation, organization, recording and management of the Water Cadastre of Romania;
- State Water Inspection with the main responsibility for the supervision of the legislation implementation in water field, harmonized with the provisions of the EU water directives.

The implementation of the national policy and strategy in water management, developed by the Ministry is carried out by the "Apele Romane" National Administration, which is organized on the basin level (11 river basins). Its responsibilities are related to quantitative, qualitative water monitoring, regulation of water resources use as well as the implementation of water management legislation, harmonized with the EU water directives.

But sustainable water development is not only carried out through activities and technical, in-

stitutional and legislative measures but also through the promotion of the participation of all involved actors, as consultative partners in the decision making process. In order to create the mechanisms of consultation on all levels, such as local collectivities, water users within the river basins and water management services beneficiaries; the Basin Committees were established through Water Law No. 107/1996 with amendments. These Basin Committees are organized on the territorial level within the Water Directorates of "Apele Romane", as consultative organisms, underlining the concern of the Ministry of the Environment and Water Management for sustaining the public participation process. The creation of these structures lay at the heart of the following main objectives: involvement within the decision-making activities of the local beneficiaries and efficient cooperation between local water management bodies and local public administration authorities in order to maintain the balance of water resource conservation and their sustainable development.

**2. Water talk: Implementation of EU legislation for the new members, which entered the EU at the beginning of 2007, means an opportunity for improving the environmental infrastructure with co-financing from EU funds. To which measures in the area of water protection, management and use is the support from Structural Funds and the Cohesion Fund for the programming period 2007 – 2013 directed and who might benefit from that support? How much funding is needed for improving and developing the environmental water infrastructure in the near future?**

Due to the investment needs in water and waste water infrastructure – which are evaluated at almost 15 billion euros – in order to comply with European legislation, Romania has requested a longer period of transition (during the negotiations with the European Commission) than other recent member states, which can allow for the achievement of the investment efforts needed.

The Urban Wastewater Treatment Directive 91/271/EEC: implementation requires necessary investments of 9.5 billion euros (5.7 billion euros for the water treatment plants and 3.8 billion euros for water sewerage systems) up to 2018 for:

- construction of new urban waste water treatment plants;
- up-grading of existing urban waste water treatment plants;
- up-grading of existing waste water treatment plants in the agro-food industry;
- rehabilitation of existing urban sewage collecting systems;
- construction and/or extension of urban sewage collecting systems.

The estimated costs for the implementation of Drinking Water Directive 98/83/EC are 5.6 million euros, which are needed up to 2015 for:

- country-wide monitoring of drinking water quality – new analytical equipment;
- investment in equipment for control monitoring performed by the producers;
- improvement of technologies and extension of water treatment;
- rehabilitation and extension of the water supply networks;
- replacement of the domestic distribution systems.

The fact that the investments in the water infrastructure are costly is a reality, but it is also true that they are absolutely necessary. Within the strategic approach of the water infrastructure projects, Romania has foreseen a long term perspective of the development of the work, taking into consideration both the size of the human agglomerations which generate a huge volume of waste water and the financial efforts involved in arranging investments in this field. The development, in time, of the financial efforts allows for sustainable development of the projects, which takes into consideration acceptance, both of the population and involved institutions.

Therefore Romania has developed a strategic document titled the Sectoral Operational Program for the Environment (SOP) that covers the period from 2007 to 2013 and supports the fulfillment of Romania's obligations in the environmental field, while offering investment opportunities across the country. The SOP strategy focuses on collective investments and services necessary to raise long term competitiveness, create new jobs and obtain sustainable development. During the mentioned period, for all of the investments in the environmental sector, Romania is counting on a contribution of 4.5 billion euros from Structural and Cohesion Funds, an amount that is far below the needs estimated for the same period.

One of the main objectives of the SOP is the improvement of water quality and access to water and the waste water infrastructure based on providing water and water sewerage systems in urban areas up to 2015. The SOP continues the environmental infrastructure development programs at the national level that have been initiated within the framework of the pre-accession assistance, specifically Phare and ISPA.

SOP's priority regarding the extension and modernization of the water supply and sewerage systems will be financed through the Cohesion Fund; the financial planning is presented below:

	EC financing (Euro)	National financing (Euro)	Total (Euro)	Co-financing rate
Improvement of the water supply and sewerage systems	2,776,532,160	489,976,263	3,266,508,423	85%

The main potential beneficiaries of the Structural and Cohesion Funds within the framework of SOP are the local public authorities that at present are beneficiaries of Phare, ISPA and other international funds. The preparatory activities for Structural and Cohesion Funds, which are time consuming for major projects, started at the beginning of 2004. Pre-accession funds, external grants and bilateral agreements have been largely used to develop feasibility studies and other back-up documents and also to support the activities aimed at improving institutional governing with a view to increasing the role of local authorities in project implementation, tendering and contracting.

The providing of grants to the water sector is conditioned on the creation of Regional Water Companies (regional operators). The regionalization process is essential because in order to implement the environmental aquis requirements, experienced water companies that can make proper investments and guarantee the functioning quality of the facilities built are needed. Without grants, most of the small operators will not be able to comply with the aquis. Therefore, there is a strong motivation for different operators to associate in regional water companies with a view to overcoming potential administrative problems. By promoting integrated water and waste water systems within a regional approach, Romania aims to maximize cost efficiency. Thus, communities from clearly defined areas (for example from a river basin) are encouraged to join together and develop a common long term investment program for water sector development (Master Plan for water/waste water).

Due to the significant investment needed in the water infrastructure, within the process of our EU/IWRM implementation, additional financing sources have been foreseen. They include:

- The National Program for Rural Development, co-financed by the EU for 2007-2013 coordinated by the Ministry of Agriculture, Forests and Rural Development that includes water infrastructure investments within the rural areas;
- The Governmental Program for Infrastructure Development in Rural Zones for 2006 – 2008;
- The National Environmental Fund, for co-financing;
- External funds and different forms of Public Private Partnerships.

**3. Water talk: WFD is the most complex set of goals, tools and commitments in the EU water-sector to date. Two of the main WFD**



goals are the protection and improvement of the quality of water ecosystems and sustainable, balanced and equitable water use. This directive provides broad opportunities for public participation in river basin management and is transposed into Romanian legislation. How can the participation of water stakeholders, the public and NGO's, be ensured during the implementation of this directive and especially in preparation of the river basin management plans which must be completed by 2009? What do you think?

The implementation of WFD requires the co-ordination of the all involved parties at the national and river basin levels. One of the main components of the development of the river basin management plans is the public information and consultation process. In order to facilitate this process and to comply with the provisions of the Water Framework Directive, the Ministry of the Environment and Water Management has promoted two ministerial orders for the approval of:

- Procedures for public consultation in the decision making process related to water management (Ministerial Order no. 1044/27 October 2005);
- Procedures for public information access related to water management (Ministerial Order no. 1012/19 October 2005).

Also the River Basin Committees provide the framework for public consultation and participation, including the management plans for all 11 river basins elaborated according to the WFD. Each committee includes 15 members: water management bodies, representatives of central and local authorities, representatives of prefectures and county councils, users (industry, agriculture, localities) and NGO's. All of these members are involved in the decision making process in order to advise the national government, promote public participation concerning the river basin management process and to inform the other key stakeholders about public participation possibilities and structures.

The following projects have been developed:

1. Enhancing Access to Information and Public Participation in Environmental Decision-making UNDP-GEF Danube Regional Project- Component 3.4 included as activities:

- Public Access to water management Information/Public Participation in the decision making process in water management – a manual for authorities which has been written especially for those authorities not involved in water management issues; it was printed under the coordination of the Regional Environment Center and with the support of the Ministry of the Environment and Water Management.
- Elaboration of a brochure on the same topic for the public and NGO's as target groups.

2. Support for the future preparation of a har-

monized Körös/Crisuri river basin management plan in a participative process (French technical and financial support under the coordination of ICPDR) with the following expected results:

- Strengthening Hungarian and Romanian cooperation between transboundary organizations in charge of water management including public participation;
- Enhancing stakeholder consultation and preparing a pilot joint public consultation project based on a timetable and a WFD work programme and the main issue in the Körös/Crisuri basin (as a pilot project for the Tisa basin/region consultation) – on going.

3. "Clean Crisuri" pilot basin project (based on two education strategies developed by MoEWM for children and adults) – on going – that aims at informing people and raising their involvement in elaborating the water protection and management strategies through:

- questionnaires;
- printed information/education booklets/leaflets;
- web site ([www.crisuricurate.go.ro](http://www.crisuricurate.go.ro))
- public meetings;
- education/awareness campaigns.

Other achievements aimed at public involvement and awareness performed by the Ministry of Environment and Water Management (MoEWM) are:

- two communication strategy (for kids and adults ) which have been disseminated at the national level, as a framework for local activities (depending on the local situation);
- 2007 Communication Plan of the MoEWM;
- MoEWM website – an important and cost efficient tool/"Kids Corner" – ecological education for children (based on the idea that children are excellent conveyors of the message);
- national TV spots (2 weeks before the events – on 3 channels of Romanian National Television) for celebrating: Danube Day (every year, starting from 2004) and International Black Sea Day (starting from 2006 for public awareness on the necessity of the protection and the conservation of the marine environment);
- two national campaigns in 2007 on raising public awareness and informing people (1) and (2) authorities/industries about the WFD provisions.

**4. Water talk: the implementation of EU Directives will be an important factor in mitigating the agricultural impact on the environment; however, it is necessary to involve farmers in the practical realization of environmental legislation. What kind of measures for mitigating impacts and enhancing environmental benefits are applied in Romania?**

The Black Sea Environmental Program (BSEP) Studies revealed that 58% of the total nitro-

gen and 66% of the total phosphorous flowing in dissolved form into the Black Sea come from the Danube river basin. More than half of all nutrient loads in the Danube River originate from agriculture; about one fourth from private households and about 10 - 13% from industry. Romania is the largest contributor of nutrients to the Black Sea as its entire territory drains into the Black Sea.

Taking into account the above mentioned facts and also the necessity to comply with EU requirements regarding the mitigation of nitrate pollution, the Ministry of the Environment and Water Management has developed the Implementation Plan of Nitrates Directive and Action Programs for vulnerable areas. Furthermore, the Ministry with the support of the World Bank, has carried out the Agricultural Pollution Control Project which is aimed at significantly increasing the use of environment friendly agricultural and household practices in rural areas in order to ultimately reduce the discharge of nutrients and other agricultural pollutants into the Danube River and Black Sea through integrated land and water management. The achievements of the project include:

- Development and implementation of manure management plans;
- Development, revision and dissemination of the Code for Good Agricultural Practice;
- Development of standard action programs for vulnerable plain areas;
- Realization of local, regional and national public awareness campaigns;
- Testing and proving of ecological agriculture practice within the vulnerable areas.

In 2006, implementation at the national level was approved. The extended project amounts to 50 millions euros and has a view to realize the programs and plans established for the vulnerable areas identified on the Romania's territory.

**5. Water talk: Global climate changes in the form of flash floods and heavy storms are affecting all the countries in the region of Central and Eastern Europe. Which arrangements and measures, in your opinion, should be adopted in order to reduce the results of this threat?**

The painful experience from 2005 and the spring of 2006 has shown that the old patterns are no longer valid under the new climate conditions and that the existing protection work as designed is not effective because the environmental conditions have changed dramatically. Also, developments undertaken in the last 50 years have had a major influence on these disastrous floods and call for necessary solutions for the rehabilitation of this situation. Therefore, Romania is in the process of reshaping and updating existing water management plans and thus starting to develop a long term strategy for

flood control. Romania has also initiated specific activities in order to enhance its capacity to tackle the problem of floods in particular and the dangerous meteorological phenomena in general. As a result, the national meteorological system has been modernized and the hydrological system is in the process of modernization. In order to improve the intervention capacity, a large project concerning the improving of intervention capacity in the event of floods and accidental pollution is in the implementation stage. This project has a total value of about 135 million euros and also deals with the improvement of reservoir management, particularly in flood and drought situations. Romania is also developing a study concerning the "Ecological and economic re-sizing of the Romanian Danube Floodplain" based on which flood control

on the Danube will be done through a combination of hydro-technical works and wetlands.

The results of the research carried out on the impact of climate change on water resources involve the consideration of the following aspects that should be adopted in order to reduce the consequences of these threats:

- development of new criteria and techniques for the designing of hydraulic structures to make water management systems more sensitive to the modifications of the hydrological regime, due to the impact of climate variability and climate change;
- elaboration of new procedures for the operation of water management systems to take into consideration the uncertainty of the hydrological regime evaluation, due especially to climate change;

- the development of research on the impact of the climate change on water quality.

As a result, the project "Forward Integration of Flood Warning in Areas Prone to Flash Floods" funded by the WMO and implemented by the GWP – Romania in partnership with the National Institute for Hydrology and Water Management, and which was of a great help to us through its educational materials in showing the ways of protecting of the population, goods and cultural values and the mitigation of the losses was carried out. As shown in the project report, this was made possible through an ensemble of activities consisting of awareness, warning, pre-alarming and alarming, sheltering, evacuation and other technical and organizational measures which the inhabitants are prepared how to use.

**Water Talk: Thank you for the interview!** ■

## IWRM National Dialogue in Bulgaria

THE INTERNATIONAL CONFERENCE "ECOLOGICAL ALTERNATIVES FOR INTEGRATED WATER RESOURCES MANAGEMENT" WAS HELD IN ARBANASSI ON NOVEMBER 23-25, 2006.



In Bulgaria, national programs and strategies refer to the construction of a collecting system and WWTPs for agglomerations over 2000 people. All available financial resources for the environment are expected to be directed precisely towards these agglomerations. However, 4,765 settlements are currently not covered by these programs. They include approximately 1.8 million inhabitants, which makes up approximately 24 % of the population. At present, there is no single working sustainable sanitation system in the country.

To cover this gap, Bulgaria Water Partnership in cooperation with EcoSan-Res, Earth Forever, Women in Europe for a Common Future, the Institute of Water Problems-Bulgarian Academy of Sciences, the Regional Inspectorate of the Environment, Water Veliko Tarnovo and the Yovkovtsi Water Supply & Sewerage Company organized this international conference in Arbanassi on November 23-25, 2006.

The aim of this conference was to raise public awareness of water supply and sanitation problems in small and dispersed communities. It also provided guidance and coordination of actions for optimal ecological solutions for wastewater collection and treatment according to IWRM principles.

In total, 44 participants from ministries, municipalities, river basin directorates, science and research institutions and universities, NGOs took part.

Key note presentations were made by Peter Ridderstolpe (Sweden) – "Natural System for Wastewater and Sludge Management with Focus on Small Settlements in Cold Climates"; Nataliya Gudkova (Ukraine) – "MAMA-86's Experience in the Introduction of Dry Urine-Diverting Toilets in Ukraine"; Diana Iskrevva-Idigo (Bulgaria) "Pilot Ecosan in Rural Bulgaria" and Margriet Samwel&Bistra Mihailova (Germany) "Women in Europe for Common Future (WECF) Programme in region of Eastern Europe and Caucasus".

In addition to the plenary sessions, there was also a poster session, group discussions and field visits to the villages of Varbitza and Draganovo (Gorna Oryahovitsa Municipality).

### Conclusions

At the end of the conference, organizers summarized the results of the group work discussions and field visits and made the following proposals to the central and local authorities:

- development and implementation of a pilot project for IWRM for small settlements. The Gorna Oryahovitsa Municipality and District Government would support such a project in the villages of Varbitza and Draganovo.
- extension of the network of ecosan toilets in rural regions; schools should be given priority
- development of cooperation and sponsorship for implementing IWRM and ecosanitation technologies
- organization of regular forums with decision-makers and other stakeholders for supporting the implementation of IWRM and EcoSan
- development of training materials for IWRM concepts and ecosan technologies for water engineers, vets, foresters, agronomists, etc. and for conducting training programs for university students, practitioners and other experts.
- conducting research on the application of ecosan under different natural and socio-economic conditions in Bulgaria

*M. Mochurova  
Bulgaria Water Partnership*



IWRM National Dialogue in Bulgaria

CREDIT: GWP BULGARIA

# IWRM National dialogue in Hungary

THE NATIONAL DIALOGUE TOOK PART ON NOVEMBER 13, 2006 IN BUDAPEST WITH A FOCUS ON THE URBAN ENVIRONMENT AND IWRM.



## Urban space and IWRM

Urban areas play an important role in delivering the objectives of the EU Sustainable Development Strategy. In urban areas the environmental, economic and social dimensions meet most strongly. Cities are where many environmental problems are concentrated, but they are also the economic drivers, the places where business is done and investments are made. Four out of five European citizens live in urban areas, and their quality of life is directly influenced by the state of the urban environment.

Most cities are confronted with a common core set of environmental problems such as poor air quality, high levels of traffic and congestion, high levels of ambient noise, poor-quality building environment, derelict land, greenhouse gas emissions, urban sprawl and a generation of waste and waste-water.

Local authorities have a decisive role in improving the urban environment. The diversity in terms of history, geography, climate, administrative and legal conditions calls for locally developed, tailor-made solutions for the urban environment. Application of the subsidiary principle, where action should be taken at the most effective level also implies acting at the local level.

Many local authorities have expressed the need for specific skills to adopt an integrated approach to management involving cross-sector cooperation and training on specific environmental legislation, effective public participation and encouraging changes in citizens' behavior. 'Face to face' training with the involvement of national, regional and local authorities is regarded by stakeholders as the most valuable learning method.

The fundamental premise is generally accepted that IWRM should be applied at catchments level, recognizing catchments or watersheds as the basic hydrological unit of analysis and management. At the implementation level, there is a growing conviction that integrated urban water management (IUWM) could be pursued as a vital component of IWRM within the specific problematic context of urban areas.

Cities are dominant features in the catchments where they occur, and success in IUWM will make important contributions to the theory and practice of integrated catchment management and IWRM in the broader basin context.

Taking this into account the Ministry for the Environment and Water together with GWP Hungary decided to organize a national meeting on urban environment with special regard to Integrated Water Resource Management.

The national dialogue was held on November 13, 2006 with the participation of more than 80 stakeholders from different fields such as local authorities, ministries, NGOs, universities, regional institutions. The opening speech has been given by Miklós Persányi - Minister for the Environment and Water, followed by Gyula Hegyi - EP member. From GWP Hungary, Gyula Reich gave a presentation on IWRM and urban environment.

## Conclusions

Lively discussions followed and among others, the following conclusions were drawn:

- IWRM should be applied at the catchment level. The catchment is the smallest complete hydrological unit of analysis and management.
- It is critical to integrate water and environmental management. This principle is widely and strongly supported. IWRM can be strengthened through the integration of Environmental Impact Assessments (EIA's), water resource modeling and land use planning.
- Full participation by all stakeholders, includ-

ing local people and the community is needed. This will involve new institutional arrangements. There must be a high level of autonomy, but this must at the same time be associated with transparency and accountability for all decisions.

- At many levels in the process - even at the governmental level - stakeholders lack the necessary knowledge and skills for full application of IWRM. Community stakeholders may not be familiar with the concept of water resource management, catchment management, corporate governance and their role in these.
  - Where specific areas of responsibility fall outside the mandate of a single government department, appropriate institutional arrangements are required to ensure effective inter-departmental collaboration. Effective IWRM is a top-down-meets- bottom-up process.
  - The political will to achieve effective implementation is indispensable on the part of those taking part - both in the public and private sectors.
  - Policies must be meaningful - especially those regarding the poor and marginalized in developing countries.
  - Water management must be prepared with the full involvement of the stakeholders concerned.
  - Monitoring of implementation and results is essential - with all stakeholders involved.
  - Successful communication includes reporting to the public on results, as well as listening to feedback.
- The main "lesson learned" from this dialogue is that more meetings and training sessions at the local level are needed to keep all stakeholders better informed.

GWP Hungary



Miklós Persányi, the Minister of Environment, opened IWRM National Dialogue

CREDIT: MIKLÓS KERESZTES



## IWRM National dialogue in Ukraine

THE UKRAINE WATER PARTNERSHIP (UWP) AND THE INTERAGENCY COORDINATING GROUP FOR DEVELOPMENT OF WATER RESOURCES ORGANIZED THE NATIONAL IWRM DIALOGUE IN KIEV ON MARCH 16, 2007.



Since 2002 the Ukrainian water sector has been in the process of transition to the management within hydrographic (basin) boundaries. There are, however, different points of view regarding mandates, tasks, functions and the organizational structure of the established River Basin Organizations (RBO).

The river basin management theme brought together approximately 50 participants from almost all relevant sectors and levels of the

society, i.e. the ministries of water resources (State Committee), finance, economy, forestry, communal services, justice, the parliamentary committee on the environment, the nine key river basins (of which eight are transboundary) and the key NGOs (of rivers, environment and social sectors).

In Ukraine, amendments to the water code are in preparation, and transition to the basin management was proclaimed in 2002. Today the Dniestr river basin serves as a pilot basin for integrated river basin management. The Dnepr, Donets, Western Bugh, Tisza and other river basins are also involved in this development.

The dialogue was distinguished by its involvement of river basin managers from remote parts of Ukraine. Demands for capacity building and learning from more advanced

countries, such as France were expressed. The opinion that river basin authorities should be legislative bodies responsible for all aspects of water management and the state of the river was expressed by some RBOs and NGOs.

Representatives from the Ministries of Economy and Finance together with parliamentary representatives gave valuable and constructive comments on the way forward in implementing river basin management.

The meeting was concluded with the adoption of a final resolution which will be presented to the Deputy Prime Minister. Participants also adopted Joint Statement regarding their views on ways and means of IWRM implementation in Ukraine. It was proposed that IWRM Implementation Strategy should become a part of the recently announced plans to develop new National Environmental Strategy and should be included in the new program of cooperation between EU and Ukraine. ■

## World Wetlands Day – Danube wetland work ahead but not enough

DANUBE NGOS (NON-GOVERNMENTAL ORGANISATIONS) ARE DOING GOOD PROJECTS THAT HELP PROTECT AND RESTORE VALUABLE WETLANDS IN THE DANUBE RIVER BASIN.



But more wetland projects are needed to make better use of wetlands as pollution removers, says Peter Whalley of the UNDP/GEF Danube Regional Project (DRP).

"Wetlands' are places where water and land naturally cooperate to protect water, animals, plants and humans. Besides absorbing pollution, wetlands provide numerous other valuable services such as reducing the impacts from floods and providing homes for fish and plant species.

Unfortunately, some 80% of the Danube Basin's wetlands and floodplains have been lost due to past human activities over the last 150 years, from river channelling to making room for more farmland.

"Danube countries are missing an excellent opportunity to use wetlands to reduce water pollution, especially from nutrients," says Whalley. Nutrient pollution is a serious problem in the Danube Basin and one that countries need to address before they can meet EU water legislation, the 'Water Framework Directive', by 2015. "More attention to wetlands should make meeting this law easier for Danube countries."

A recent survey, funded through the DRP, asked wetland and water managers throughout the basin about what they perceived to

be most important about wetlands. The result was that most found wetlands beneficial for habitat protection, flood control and recreational purposes (68%), but only 9% found them useful for nutrient pollution control.

"The results prove that the case for using wetlands for nutrient pollution needs to be better promoted on Wetlands Day and every day," says Whalley. To better encourage the importance of Danube wetlands, the DRP is developing a guidance document for wetland managers that includes case studies where wetlands have improved water quality.

The DRP has also funded numerous wetland pollution-reduction projects implemented by Danube NGOs. Examples include a project in Veresegyház, Hungary where local NGO Tavirozsa restocked a lake with original wetland plants and removed alien fish species that eat wetland plants -- to reduce the lake's nutrient pollution problem.

In Slovakia, the NGO BROZ cooperated with Slovak State Forests to introduce nature-oriented forestry in the 1,500 ha Rusovce floodplain near Bratislava. The new management will remove alien trees and plant native tree species such as elm, oak and wild pear. In addition, BROZ together with the State Nature Conservancy submitted proposals for three new protected wetland sites of nearly 1,400 ha along the Danube.

In south Moravia, Czech Republic, local NGO Sagittaria prepared and helped implement a new local management plan to increase the capacity of a damaged fish pond. The goal was to naturally reduce excessive nutrient pollution from agriculture and communal sewage. A green buffer strip was set up, fish stocks improved, valuable wetland plants were grown in a special lake enclosure and a public campaign helped build local support. ■

# Water training for international students in Bulgaria

FROM APRIL 11<sup>TH</sup> TO APRIL 24<sup>TH</sup> 2007 ENGREF-MONTEPELLIER ORGANIZED A TRAINING PROGRAM FOR POST-GRADUATE STUDENTS IN BULGARIA.

ENGREF-Montpellier organized the training in association with the Bulgarian Academy of Science, the Bulgaria Water Partnership, the Regional Inspectorate of the Environment and Water in Veliko Tarnovo and UBI-FRANCE-Bulgaria



ENGREF team with GWP Consulting Partners in Veliko Tarnovo

In France, ENGREF-Montpellier is part of AgroParisTech (Institute of Technology for Life, Food and Environmental Sciences) and deals with post-graduation training programs focused on technical and non-technical aspects of water management.

The students came from France, Moldova, Tunisia, China and Ireland. The program provided a unique opportunity to work on a real case study while interacting with Bulgarian professionals, including GWP Bulgaria and their partners.

## The case studies

The first case study was the Gorna Oriahovitsa wastewater treatment plant. The treatment plant, financed by an EU grant (75%) and the Bulgarian government (25%), was built to treat wastewater from 102,000 people. It was put into operation in August 2006. Unfortunately, the incoming wastewater is far below what was expected and therefore the treatment plant is not working properly. The students were asked to investigate the sources of pollution, the operation of the treatment plant and the economic sustainability of the project.

The main results of this study was to recommend that the Gorna Oriahovitsa Sugar Factory be connected to the sewage network after installing a balancing tank, in order to increase the volume of incoming wastewater to bring the treatment plant back to normal operation in the mid-term. Furthermore, waste water from the Sugar Factory could help maintain

a reasonable price for wastewater treatment, taking into account depreciation costs. The study also gives short-term recommendations for operating the plant until a sufficient amount of pollution is reached.

The second case study took place in rural Bulgaria in the Saedinenie Municipality near Plovdiv. The first aspect was to carry out a technical and financial analysis of the water supply network, especially to propose some improvements in the supply capacity and energetic yield when necessary and to draw up a long term financial sustainability analysis including depreciation costs. The study also proposed several scenarios to clarify the role of the stakeholders. Furthermore, it presented their views on water prices and opportunities to obtain state funding in the future.

The second aspects dealt with sanitation solutions for a village. The purpose of the study was to give a methodological framework of different solutions available to reduce the effect of domestic pollution in rural areas and to apply it to Dragomir, a village in the Saedinenie Municipality. The proposed solution could be either individual such as dry toilets that are rather cheap and can be implemented in the short-term, or collective, such as a network and treatment plant with macrophyte reed bed filters, a much more expensive solution but more convenient if tourist development is being considered.

The case studies were presented at the end of the two-week program in Sofia during the World Water Day celebrations. The students called for a follow up of the training program in the future that could possibly include young Bulgarian professionals and GWP partners. ■

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## 6<sup>th</sup> IWA Conference on Wastewater Reclamation and Reuse for Sustainability

THE 6<sup>TH</sup> INTERNATIONAL IWA SPECIALIST CONFERENCE ON WASTEWATER RECLAMATION AND REUSE FOR SUSTAINABILITY (WRRS 2007) WILL BE HELD IN ANTWERP (BELGIUM) ON 9<sup>TH</sup>-12<sup>TH</sup> OF OCTOBER, 2007.

Over the years, this biennial IWA water reuse conference has become a major global platform to share best practice and discuss the latest developments in the field of sustainable reuse of municipal and industrial wastewater. An appointment not to miss by research institutions, companies and organisations active in this sector, both in developed and developing countries. ■

More information about the conference is available at [www.wrrs2007.org](http://www.wrrs2007.org).