Global Water Partnership

CEE Water Talk

the newsletter of the Central and Eastern European water stakeholders

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Editorial

Dear reader,
I am pleased to introduce Water Talk 1/2006, the newsletter of the Central and Eastern European water stakeholders. This issue brings insight into GWP CEE activities and news from our partner's organisations throughout the region.

Last year, GWP CEE launched a new initiative on sustainable sanitation in rural settlements under 2000 inhabitants. A recent study, carried out by the Country Water Partnerships indicated that 20 to 40 percent of the total CEE population lives in such small and dispersed communities. Providing these people with the appropriate sanitation will improve the environmental conditions and promote social and economic development of the rural areas.

Based on an invitation from Ukraine stakeholders to assist them in IWRM planning, GWP CEE in the cooperation with the State Committee on Water Management organised the first stakeholders meeting in Ukraine on December 1-2, 2005. The meeting set up a framework for improved co-ordination and communication on water- related issues, practical application of IWRM, establishment and strengthening of river basin organisations.

The beginning of the year was marked by many important events, such as the World Wetland Day on February 2, the World Water Day on March 22 as well as the largest global water festival, the World Water Forum on March 16-22. This year, GWP is celebrating its 10th anniversary in August in Stockholm. Dear readers, you are all invited to contribute to Water Talk with your stories and news. If you would like to receive more copies or simply have any comments on this issue, feel free to contact us.

Editor

The GWP CEE family gets bigger

CREDIT: GWP CEE/R. MULLER

Participants of the stakeholders meeting in Kiev

TO ASSIST UKRAINE IN IWRM PLANNING, GWP CEE IN COOPERATION WITH THE STATE COMMITTEE ON WATER MANAGEMENT ORGANISED THE FIRST EVER STAKEHOLDERS MEETING IN KIEV, UKRAINE ON DECEMBER 1-2, 2005.

On behalf of the State Committee on Water Management (SCWM) of Ukraine, Vasyl Stashuk, the Chair of SCWM, gave a warm welcome to all participants. Alan Hall and Bjorn Guterstam from the GWP Secretariat in Stockholm then presented an introduction to GWP, its network and principles of IWRM planning. Members of the GWP CEE Regional Council and the Regional Secretariat continued by providing information about GWP CEE governance, major achievements, activities, workplans and expectations regarding new members. In the next section, the Ukrainian stakeholders presented activities of their respective organisations and institutes. During the discussion, the participants expressed their appreciation of GWP assistance which contributes to the Implementation Plan agreed at the WSSD, creates a joint platform for improved co-ordination and communication on water- related issues, assists in the application of IWRM and supports the establishment and strengthening of river basin organisations and of appropriate legal frameworks.
The participants included high level representatives of the following organizations: the State Committee on Water Management (SCWM) of Ukraine with its river basin management organizations (Siversky-Donets, Dnipro, Dniester, Crimea), oblast branches (Volyn, Trans-Carpathia, Odessa) and other water management organizations; the Ukrainian Scientific Institute of Water Management and Ecology Problems; Ukrhydrometcenter; Institute of Water Engineering and Land-reclamation of UAAS; NGO "Ukrainian Rivers Network"; the Ukrainian Center for Water and Environmental Projects (UCEWP); NGO MAMA-86; Institute of Colloid Chemistry and Chemistry of Water of UNAS; the Closed joint-stock company "Ukrvodproekt" and the State Institute of Management and the Economics of Water Resources.
At the end of the meeting, the participants representing a variety of state, regulative, water management, academic, business and civil society organisations, adopted the so called Bortchini resolution. In the resolution, they decided to launch an interim initiative group on the establishment of the Ukrainian Water Partnership (UWP). The tasks of the interim initiative group will include the distribution of information on GWP, preparation and submission of the UWP application forms to both GWP and Ukrainian authorities, in cooperation with other interested Ukrainian organizations. Starting from voluntary participation in GWP and sharing its principles and approaches, participants of the interim initiative group have also decided to share the temporary responsibilities between the group members and selected the following primary focal points: Anna Tsvetkova, NGO MAMA-86 and Andriy Demydenko, UCEWP. As a result of the stakeholders meting, GWP Partner's organizations established the Ukrainian Water Partnership in February 2006.

For more information on the Ukrainian Water Partnership, please contact Anna Tsvetkova at atsvet@mama-86.org.ua and Andriy Demydenko at andriyd@env.kiev.ua. ■

Interview with RNDr. Libor Ambrozek

Minister of Environment, Czech Republic

IN CONTINUING WITH OUR SERIES OF INTERVIEWS WITH THE MINISTERS OF THE ENVIRONMENT FROM THE 11 CENTRAL AND EASTERN EUROPEAN COUNTRIES, WHICH ARE PART OF THE GWP CEE REGION, WE BRING YOU OUR INTERVIEW WITH THE MINISTER OF THE ENVIRONMENT OF CZECH REPUBLIC, LIBOR AMBROZEK.

LIBOR AMBROZEK was born in Hodonin, Czech Republic on 2 August 1966. He studied systematic biology at the College of Natural Science of Charles University in Prague. After graduation he worked as a naturalist at the Masaryk Museum in Hodonin. In 1991 he joined the Department of the Environment of the District Authority in Hodonin, where he worked in the Section of Nature Conservation. Ambrozek became a member of the Christian Democratic Union - Czechoslovak People's Party (KDU-CSL) in 1990. In June 1996 he was elected a member of the Deputy Chamber of the Parliament of the Czech Republic. From 1996 to 1998 he worked as a member of the Agriculture Committee thereof. Since 1996 he has been a member of the Committee for Public Administration, Regional Development, and the Environment, where he was repeatedly elected the Chair of the Subcommittee for Environmental and Landscape Protection. In 1996 he became a member of the Council of the State Environmental Fund, serving as its Chair since 1998. Within the shadow cabinet of the Four-Coalition he was responsible for the shadow ministry of the environment. He is the Chair of the Expert Commission for the Environment of the KDUCSL. He was also elected as a member of the Deputy Chamber of the Parliament of the Czech Republic for this Party. He has been active in the field of nature conservation and environmental protection. He holds several non-paid positions for non-profit environmental organizations. He is the Chair of the Czech Union of Nature Conservationists, the largest non-government organization active in this area. Furthermore, he is the Chair of the Board of Directors of the Bi1e Karpaty Education and Information Centre, and a member of the Board of Directors of the Institute for Environmental Policy. He automatically resigned all of these positions upon his appointment as Minister of the Environment of the Czech Republic in 2002.

Water Talk: **GWP defines the Integrated Water Resource 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 the Czech Republic?**

Regarding the vision of the Integrated Water Resources Management, I should point out that there are shared competences in the area of water policy between the Ministry of Environment and the Ministry of Agriculture. The delegation for the 4th World Water Forum, which took place in March in Mexico, was composed of representatives from both ministries. Considering the water policy competences of the Ministry of Environment, the main subject to be brought forward is Water and Environment, particularly water quality improvement and the protection of water in the Czech Republic, key problems of water policy, i.e. drought, flooding, water pollution, and solutions to such problems. Equally important is the development and strengthening of national monitoring mechanisms and goals that are related to the current preparation of monitoring programmes according to the Water Framework Directive. It is also important to solve problems at the regional level, to cooperate in the area of boundary waters and last but not least to develop river basin management plans in relation to the evaluation and management of flood risks.

Water Talk: **Implementation of EU legislation for the new members, which entered the EU in May 2004, 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 Cohesion Fund for the programming period of 2004-2006 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, i.e. in the next programming period 2007-2013?**

Support can be provided for the build-up and modernization of wastewater treatment plants (WWTP) and the extension of sewerage systems, as for example the construction, reconstruction, intensification or extension of wastewater treatment plants to meet the requirements of Directive 911271/EEC and also for the purpose of more efficient treatment of storm water (in the case of a combined sewerage system). Furthermore, the support may be provided within the framework of the drinking water supply to the municipalities, in cases where there exists reasonable justification regarding the unsatisfactory quality or quantity of drinking water. The beneficiaries might be legal persons established for non-business purposes, particularly public utility organizations, municipal and regional governments, civil associations and associations of municipalities, allowance organizations and other entities established by generally binding legal regulations and whose activities are not business activities pursuant to the Commercial Code. Finally, regarding the experience from the present programming period, the assessment of costs for fulfilment of the priority of the Environment Operational Programme related to water management for the programming period 2007 – 2013 is expected to amount to 109 billion CZK (EUR 3,893 billion).

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

Our principal objectives are to raise public awareness of water protection, the series of events in their surroundings and to stimulate the active participation of all interested parties. All these aspects create the premise of public consultations. During the year 2008, the public will have an opportunity to present individual proposals of river basin plans, or more precisely during the year 2006, consultations concerning a schedule of preparation plans are expected; consultations related to the main problems concerning the plans are going to be held in 2007, which means that the public should be involved in the very early stages of the planning process.

One of practical examples of public participation in the Czech Republic was the establishment of an advisory forum for a pilot plan for the Orlice River in order to integrate the public into the planning process, mediate information and obtain comments on outputs of different process phases. Although the Orlice River is a small sub-basin and it is probably not possible to use such a structure for the whole river basin area in most other cases, the public will play an important role in the planning process. They

will have the possibility to participate in tasks handled in the framework of committees established for particular river basin areas

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 the Czech Republic?

In the Czech Republic, a political tool called "Cross-Compliance" combining environmental protection and agricultural production, has begun its probation period. An integration effort of basic ecological standards into agricultural practice has become an important pillar of the Common Agricultural Policy reform in the last decade. "Cross-Compliance" contains various environmental and other standards that farmers are obliged to comply with in order to get subsidies. The probation period is instrumental for the preparation of administration, functionality testing of control systems and risk analyses. Full operation is expected to be launched in January 2009.

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

The Czech government adopted Flood Control Strategy establishing goals related to improvement of the measures system and implementation of preventive measures combining landscape and technical measures. The main task of the landscape measures is to create balance between economic development, area urbanization and landscape retention capacity. In addition, technical measures aim to mitigate flooding effects by retaining some volume of water and decreasing water peak discharge or limiting water diffusion. It is also important to limit economic activities within flooding areas. Tasks have been established to decrease the erosion effects of surface runoff across the landscape and to water courses and to slow down precipitation outflow. The most effective way of protection is prevention, systematically implemented within hydrological river basins. Such problems must be resolved within the framework of an international context. ■

Calendar of Events

GWP CEE Regional Council Meeting
April 7–9, 2006
Bratislava, Slovakia

Tool Box seminar in CACENA
May 4–5, 2006
Nukus, Uzbekistan

Danube Day
June 29, 2006
Countries of the Danube River basin

GWP Consulting Partners Meeting
August 18–19, 2006
Stockholm, Sweden

GWP 10th Anniversary
August 20, 2006
Stockholm, Sweden

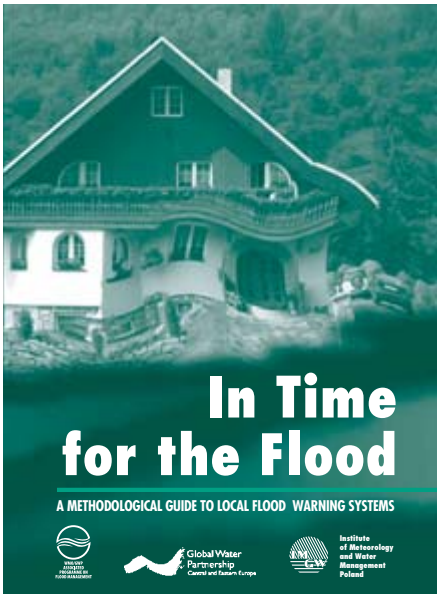
Stockholm Water Week
August 20–26, 2006
Stockholm, Sweden

IWRM Symposium
September 26–28, 2006
Bochum, Germany

GWP CEE at the IV World Water Forum

AT THE IV WORLD WATER FORUM, GWP CEE REGIONAL COUNCIL CHAIR, LIVIU NICOLAE POPESCU, PRESENTED AN EXAMPLE OF SUCCESSFUL PUBLIC PARTICIPATION IN RIVER BASIN MANAGEMENT IN THE SESSION "IWRM IN FEDERATIVE COUNTRIES" ON MARCH 18.

In addition, Roman Konieczny from the Institute of Meteorology and Water Management presented a recent publication on floods "In Time for the Flood". The book is dedicated to local decision makers, mainly the local governments which have to deal with flash floods. The first part brings information on the operational principles of warning systems, describes characteristics of the "ideal" system, as well as Polish and foreign examples of solutions undertaken in a similar spirit. The second part deals with the most important data and information which needs to be obtained or prepared before one begins to plan the building of a local flood warning system. This includes an analysis of the structure of possible flood losses, the amount of response time that must be provided to entities at risk and the costs of both investment in and exploitation of monitoring and warning systems. The third part is a compendium of knowledge concerning the elements of the system. It presents both the principles for building a precipitation and water level monitoring system and preparing forecasts and disseminating warnings, and the things the local community should know so that its members' responses to warnings will be effective. The last part focuses on one of the most important elements guaranteeing system effectiveness –co-operation. Not only with institutions, such as the hydro-meteorological institutes or regional water boards, but above all with the mass media and the local community. The translation and publication of the English version was financed by GWP CEE, edited by the Polish Committee for the Global Water Partnership and published in collaboration with the WMO/GWP Associated Programme on Flood Management (APFM).



The World Water Forum is an initiative of the World Water Council aiming to raise awareness on global water issues. The First Forum was held in Morocco (1997), the Second in the Netherlands (2000), the Third in Japan (2003) and the Fourth in Mexico City in March 2006, under the overarching theme of "Local Actions for a Global Challenge". The IV World Water Forum was focused on an analysis of experiences and knowledge sharing. The Forum has already been established as an open, multi-stakeholder participatory process, which builds on the knowledge, experience and input of the global water community and seeks to enable multi-stakeholder participation and dialogue to influence water policy-making at the local, regional, national and global levels, thus ensuring better living and respect for the principles of sustainable development to achieve the Millennium Development Goals. The World Water Fora are built on the knowledge and experience of different types of organizations active in the global water policy. It is founded on the principles of collaboration, partnership and innovation. ■

No wetland protection means no EU water protection, says DEF

CREDIT: J. SEFFER

Peatbog at Vysne Temnosmrecianske tarn in High Tatras

AN INTERNATIONAL CAMPAIGN TO PROTECT DANUBE WETLANDS AND WATERS WAS LAUNCHED BY THE DANUBE ENVIRONMENTAL FORUM (DEF) ON FEBRUARY 2, THE WORLD WETLANDS DAY.

"We believe that these planning processes do not consider wetlands seriously enough," says DEF spokesman Johannes Wolf. *"This cannot continue because water cannot be properly protected without protecting wetlands."* National assessments earlier prepared by Danube countries of the status of their water resources did not adequately include wetlands, says DEF.

The DEF campaign will encourage national water planners to learn more about, and better apply, wetland protection. International organizations such as the International Commission for the Protection of the Danube River (ICPDR), UNDP-GEF Danube Regional Project (DRP), WWF and the Ramsar Convention Secretariat have all produced helpful tools to assist planners in their efforts. DEF also supports a new DRP project that will produce new guidelines and best practices for wetland protection.

The DEF campaign has support from the Secretariat of the global Ramsar Convention on Wetlands which coordinates World Wetlands Day.

A key gap to be filled, says DEF, is the development of national inventories of wetlands which are now largely non-existent in most countries. *"How can you save wetlands if you don't even have a list of where they are?"* says Wolf. DEF will push for better access to information to, and greater public participation in, developing national water protection plans. *"Civil society can offer valuable support including information, experiences, lessons and experts."* The progress of Danube national governments in including wetland protection measures in their national plans will be monitored by DEF – results will be publicly disseminated on Danube Day, June 29, 2006 and World Wetlands Day 2007.

DEF NGOs also held a number of local actions on February 2 in Danube countries to promote World Wetlands Day. These included press conferences in Germany and Czech Republic on the importance of wetlands and their role in flood prevention. Public awareness will be raised with wetland tours in Hungary and Croatia, and explanations of the threats from planned navigation projects to wetlands in Romania. And a national wetland conference and new protected wetland sites will be launched in Slovenia. ■

Further information and contacts:
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Wetlands Day – Water plants help Danube meet EU law

A NEW PROJECT WAS LAUNCHED ON FEBRUARY 2 TO BETTER USE NATURAL DANUBE WATER PLANTS FOR REDUCING WATER POLLUTION.

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Danube countries need to reduce water pollution to meet EU water protection legislation, known as the Water Framework Directive, by 2015. This includes non-EU countries sharing the Danube River Basin that voluntarily agreed to meet EU water law. Danube countries are now making plans to ensure that waters within their national boundaries are clean and protected by 2015. The new project, funded by the UNDP-GEF Danube Regional Project (DRP), will encourage national water managers to use water plants to help reduce pollution and to include such actions in their national plans to clean Danube waters. Outputs from the project will include guidelines and case studies where water plants have significantly improved water quality.

The water plants are located in 'wetlands' - places where water and land naturally cooperate to protect water, animals, plants and humans. Besides absorbing pollution, wetlands provide numerous other valuable services including helping to reduce the impacts from floods and providing homes for important fish and plant species. "The DRP encourages Danube countries to value wetlands more in their efforts to meet EU law," says DRP Expert Peter Whalley. "We also hope Danube wetlands will be better protected in the future." Some 80% of Danube wetlands and floodplains have been lost due to past human activities, from river channelling to making room for farmland. "Danube floodplains are among the most important remaining floodplains in Europe," says Tobias Salathe from the Ramsar Convention on Wetlands.

The DRP is also supporting a local campaign in Vojvodina, Serbia and Montenegro. Its goal is to protect the Zasavica Special Nature Reserve and its wetlands from illegal garbage dumping, tree cutting and hunting. The Zasavica campaign was launched today on International Wetlands Day as part of the larger International Wetlands Campaign by the Danube Environmental Forum (DEF). DEF is the largest network of Danube environmental NGOs in the Danube River Basin. The DEF campaign will encourage national water managers to adequately incorporate wetland protection into their national plans. The DRP also continues to fund a project implemented by the WWF Danube-Carpathian Programme to prepare new policies for wetlands rehabilitation and protection. This includes local pilot projects in Croatia, Romania and Slovakia. ■

CREDIT: P. CSAGOLY

Winter wetland in Hungary

Further information: Paul Csagoly, Communications Expert, UNDP-GEF Danube Regional Project, tel: +43 1 26060 4722, mobile: +43 664 561 2192, e-mail: paul.csagoly@unvienna.org, website: www.undp-drp.org

Hoce Rainfall Water Treatment Plant in Slovenia

THE HOCE RAINFALL WATER TREATMENT PLANT (RWTP) WAS BUILT IN 2001 BY THE SLIVNICA – PESNICA HIGHWAY (HW) IN THE AREA OF THE STAVBAR GRAVEL PIT IN HOCE, SLOVENIA.

Its purpose is to treat rainfall water from the Slivnica - Pesnica HW, between the 2.6 km marker to the 5.5 km marker. During the period from June 2001 to 2002, when the RWTP experimental operation took place, the Slovenian Institute for Ecological Engineering supervised the individual parts of the installation and steering of the installation through a processor in order to define the hydraulic load and monitor the operation of the installation. RWTP drains 2500 meters of the HW, which is 26 meters wide; the average outflow coefficient is 0.84.

The Hoce RWTP consists of the following functional parts:

- discharge object for the disburdening of high water overflow into percolators during showers
- sedimentation tank - oil separator and pollution trap during showers for mechanical treatment of critical rainstorms of polluted wastewater (WW) (intensity 15 l /s.ha)
- infiltration tank for additional treatment of 10-year rainfall water in ground filter
- retention basin for 100 year rainfall water
- intake shaft which protects the infiltration tank and retention basin during high groundwater levels from buoyancy lifting power
- pumping station for draining and pumping of purified and detained rainfall water out of the gravel pit into the Polanski Brook

The central purifying is performed in the infiltration tank where the treatment device is located. It is a mechanical-biological device and is intended for the purifying of suspended and dissolved substances. It consists of a retention basin with a bottom of sand filter and humus layer sown with grass. Part of the RWTP also includes a monitoring and control device with a sensor system and processor. It enables hydraulic measurement and management of the built infrastructure. Microprocessor units monitor the RWTP operations. An industrial computer records measurement of hydraulic parameters. The measurement is carried out continuously; the computer saves the data every minute. The period of measurement is divided into a dry period (a period of constant measurement) and a rainfall period (a period of dynamic measurement), in which the influence of rain on hydraulic parameters is clearly seen.

During the experimental operation, the low permeability of the infiltration tank was evident, probably a consequence of the inadequate performance of the humus and filter layer during the time of construction. The infiltration tank was sanitized in December 2002. In one part of the infiltration tank the surface humus layer was replaced with more permeable material. Also the linking pipeline between the infiltration tank and retention basin was built. In the later phase of the operation of the Hoce RWTP, this will enable the elimination and detaining of the infiltration tank and redirection of water via that pipeline into the retention basin. These interventions enable the undisturbed operation of the facility during maintenance. Every two years the main drainage pipeline, which continues underneath the infiltration tank to the pump station basin, should be examined with a camera to detect any possible washing out and stagnation of filter material in this part of the pipeline and if necessary, it should be washed out.

CREDIT: L. BORKO

Rainfall water treatment plant in Hoce

On the basis of the experimental operation analysis, it is estimated that hydraulic measurement and device operation supervision be carried out according to the project demands. Three samples were taken to determine the quality of the wastewater from the Hoce rainfall water treatment plant on the Slivnica-Pesnica highway. The first monitoring point (M1) is located on the inflow drainage into the oil separator; the second monitoring point (M2) is located at the outflow drainage from the oil separator and the third monitoring point (M3) represents the tap in the pumping station. All three samples were taken on October 24, 2003 at the beginning of the rainy season.

From the measurements of the quality of rainfall it can be stated that the values at the outflow from the cleaning device do not exceed MAC (Maximal Allowed Concentrations) limit values, which are determined in the Decree on the Emission of Substances and Heat by Wastewater Disposal into the Water and Public Sewage System (Official Journal of RS, No. 47/05) for outflow into a water flow; neither exceeded the values of rainfall which flows into the cleaning device.

While comparing the results at the inflow and outflow, we can see the difference between concentrations. The concentrations at the outflow are as a rule even higher than the concentrations at the inflow. In our opinion this is a consequence of the fact that old water remains in the oil separator and other parts of the cleaning device after it is "pushed" there by new rainfall water coming from the highway. When water stays in the cleaning device for a longer period of time, concentrations of several dissolved substances in it increase, and after the old water is substituted with new water because of rainfall, concentrations in the outflow are also slightly increased.

In February 2002, the Geological Institute of Slovenia signed a contract with DARS ("the Company for State Roads of the Republic of Slovenia") about monitoring surface and underground waters on the Fram-Slivnica highway. The chemical monitoring was carried out in 6 measuring places for underground water and in 3 measuring places for surface water. According to the project, the measurements were carried out every three months on the surface flows and piesometers. All the analyses and sampling were carried out according to valid standards and validated standard methods. On some roads in the influential HW area, hand meas-

uring of levels of underground waters has also been carried out.
The results of the hydrological measuring of ground water levels and water flow volume within the operated period of measuring do not show any unexpected or unusual oscillation. The monitoring showed that all the three analyzed flows contain ammonia, nitrites and phosphates and traces of copper, chromium, zinc and vanadium. In the summer months, underground water levels were noticeably lower and surface flows were drastically reduced. This was a consequence of a severe drought in 2003. With autumn rain, the underground water levels and volume of surface water flow started to normalize.
The performed chemical analyses show that the values of some pollutants are higher than the values which are prescribed with regulations. None of the analyzed samples of underground water conform to the MACs set up by the Decree of the Underground Water Quality (Official gazette 11/ 2002), neither nor do they conform to the Decree of the Chemical State of Surface Waters (Official gazette 11/ 20002). In our opinion this is the result of settlement, agricultural activities and industry in the wider area.
Other heavy metals appear only occasionally. Because only isolated measurement takes place, the results cannot be considered as representative. Their appearance demands further observation. In two piesometers, increased concentrations of chlorinated solvents and absorbed organic halogens (AOX) were found. The source of this pollution cannot be determined, because it appears not only in the piesometer, which is parallel with the water flow, but also in the piesometer which is downstream from the underground water flow and the highway location. Our opinion is that this pollution is connected with pollution in the wider area. The results of this monitoring show that the underground water is not heavily burdened with organic substances. The underground water does not contain ammonia and nitrates. In 5 out of 6 sampling places the quality of the underground water conforms to the quality demands in the Regulation on the Drinking Water (OJ RS No. 47/1997). The influence of the highway was not evident, which shows that the disappearance of the purified outflow of HW WW at the cleaning device into underground water does not represent any danger to the quality of the underground water.
To conclude, the measuring of rainfall in the area of the Hoce RWTP showed that the values do not surpass the MAC (Maximal Allowed Concentrations). During the measuring of the parameters, which are required by the DARS-supported project, difficulties appeared in measuring places for the determination of the volume of surface water flow. The beds in which the measuring is carried out are not adequately maintained. There are also problems connected with measuring places (unsuitable connection of measuring shaft and measuring profile, unsuitable overflows). ■

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Focus on Sustainable Sanitation

GWP CEE, IN COOPERATION WITH THE ASSOCIATION OF WASTE WATER TREATMENT EXPERTS (ACE SR), ORGANISED AN INTERNATIONAL MEETING OF SUSTAINABLE SANITATION EXPERTS ON DECEMBER 1, 2005 IN BRATISLAVA.

EU Directive 91/271/EEC of May 21, 1991 concerning the collection, treatment and discharge of waste water from urban agglomerations, as well as the more recent Water Framework Directive, have come to remind us of the necessity of the appropriate disposal of all wastewater discharges with the objective of a good status of surface water, groundwater, transition and coastal waters. The "urban wastewater treatment" directive is concerned with agglomerations of more than 2000 p.e. although Article 7 of this directive refers to agglomerations with less than 2000 p.e., but only concerns those having a collection network. There is no mention of small and dispersed communities where the establishment of a collecting system is not justified either because it would produce no major environmental benefit or because it would involve excessive investment and operational costs.
The goal of the meeting was to discuss a proposed program with respect to sanitation systems of small communities. A recent study led by Janusz Kindler and carried out by the GWP CEE Country Water Partnerships indicated that such small and dispersed communities are inhabited by 20 to 40 percent of the total population of the CEE countries. They constitute a large and usually less economically successful segment of our societies. Providing them with appropriate sanitation conditions is one of the basic preconditions for the overall social and economic development of the CEE countries and is not only in concert with the Millennium Development Goals, but also contributes to IWRM.
Based on international experience world-wide, sustainable sanitation technologies like urine separating and dry toilet systems, reed bed filters, macrophyte lagoons, stabilization ponds, constructed wetlands and other "eco-engineered" solutions will provide the

CREDIT: B. MACAROL

Ecoremediation project on the Rizana River, Slovenia

most desirable solutions for small and dispersed communities. Their investment costs are generally lower than that of the classical urban wastewater disposal systems and the operating conditions are simpler, more flexible and require less energy consumption. They require a lower amount of manpower and less-specialized service than intensive urban techniques.

In the first part, Igor Bodik (ACE SR) presented the problem of the CEE countries with respect to small agglomerations. The CEE region (countries that entered or are approaching the EU membership) is obliged to meet the requirements of the EU water related legislation that is primarily focused on agglomerations of more than 2000 pe. Therefore, most national water policies were adjusted or developed to address the requirements of the EU water policy. Financial plans are also tied to the reconstruction or construction of sanitation systems in large cities. Igor provided the basic data with respect to the collection and treatment of wastewater in Slovakia. He also introduced the concept of technical options and illustrated a few technical alternatives for small agglomerations.

After the introductory presentation, each participant presented the national situation with regards to sanitation systems. Daniel Vrhovšek from Slovenia pointed out that the situation of small communities is rather complicated with the fact that Slovenia is a diverse country of different geographical conditions and often with a special regime (zones of protection, NATURA areas etc). The diversity is also documented by different "rural" locations; some localities are tourist centres in the Alps, some are in lowlands where constructed wetlands are the appropriate solution. The past practise was to connect small communities to larger cities, but that appeared to be a very expensive solution. Mr. Vrhovsek also presented eco-remediation systems in Slovenia. Eco-sanitation issues should include ecoremediation, constructed wetlands and reed bed filtration and other alternative technical solutions rather than the traditional construction of sewage systems and wastewater treatment plants (WWTPs). Prof. Wanner from the Czech Republic noted that one aspect should be taken into account; this refers to the cultural and social development of small communities. Local people are often reluctant to receive advanced sanitation services, as they would have to pay for them. Katalin Zotter from Hungary also pointed out that about 3.5 million inhabitants have no access to sanitation services and have to rely on septic tanks of questionable safety, resulting in ground water pollution. Helve Laos from Estonia added that it is not clear why small settlements should be connected to centralized sanitation systems, as there is no appropriate evidence that the pollution contribution of these communities exceeds the environmental benefits. She also pointed out that water legislation sets pollution limits regardless of the size

CREDIT: B. MACAROL

Constructed wetland in Slovenia

of the WWTP. On the contrary, Pawel Blaszczyk from Poland reported that the Environmental Fund and Vojvodina Funds are available for investments regardless of the size of the community, however, future operation costs might be the problem. Rolandas Zazerskis from Lithuania discussed the preparation of a new Water Act that will require new operators to cover a minimum of 85% of their territory with sanitation services. Georgi Terzov from Bulgaria added that the problem is caused by the negative population growth in Bulgaria that complicates investment plans in water infrastructure.

During the brainstorming session, the participants noted that CEE countries pay special interest to ensure sanitation services for large settlements and thus to comply with the EU requirements. Also, the investment policies are focused on large cities and investment plans follow the priorities outlined in regional development policies. On the other hand, decision makers pay much less attention to small settlements, as sanitation and wastewater treatment in these communities is not on the highest agenda of national policies and legislation. In small villages, local decision makers, i.e., mayors, who do not have sufficient information on alternatives and associated technical and financial consequences of the technical solutions, have to deal with sanitation.

Currently, CEE countries are preparing river basin management plans that could address some of the issues related to sanitation in small communities. However, it is still not clear to what extent and how these plans will reflect sanitation problems. Among the local population, there is a common understanding that the absence of a proper sanitation system does not cause environmental degradation. Also, economic assessment in this field does not exist; as this comprises a complex mix of economics and policy, from affordability issues to cost recovery and investment policies. One of the obstacles for more massive use of eco sanitation is the low awareness of decision makers, the population and surprisingly, some experts in the field of traditional sanitation.

According to the participants, sanitation in small settlements is neither sufficiently covered by national water policies, nor addressed in national development policies and investment plans in CEE countries. As a first step, they recommended the development of the Terms of Reference for this new initiative, carrying out an initial survey mapping existing knowledge and collecting case existing studies (available from EWA, IWA or other sources). The participants agreed that the eco remediation approach (using constructed wetlands for treating waste water from landfills, etc) should be included in the concept of sustainable sanitation. Better sanitation contributes either directly or indirectly to the improved health of the local population and therefore, a sustainable sanitation initiative has to consider not only environmental but also health risks.

In the future, it would be advisable to investigate if and how the river basin management plans involve measures for solving sanitation problems in rural settlements. The initial mapping of knowledge should be followed up by a survey on technical solutions available for small settlements including economic assessment and taking into consideration specific geographical, technical, economic and social circumstances. Regarding the public, it was recommended that an awareness campaign to promote the importance of sanitation and the willingness of the local population to accept and connect to sanitation systems be launched. Finally, the proposed initiative should result in the study and guidelines for decision makers on the local level in CEE countries. For more information on sustainable sanitation initiative, please contact the GWP CEE Regional Secretariat at gwpcee@shmu.sk. ■

Eco-economic approaches to setting rates for the use of water resources in Ukraine

IN THE COUNTRIES OF THE FORMER SOVIET UNION, THE SYSTEM OF TARIFFS FOR INDUSTRIAL ENTERPRISES USING WATER FROM SURFACE SOURCES WAS BASED ON THE BASIN PRINCIPLE.

Within the system of basins of the Black and Azov Seas on the territory of Ukraine, five water-management systems and different basic rates for the use of water were established in each of them. The differentiation of basic rates was substantial: for example - from U$0.004/$m^3$ in the Danube to U$0.024/$m^3$ in the rivers of the Azov Sea. The established system of charges has three main disadvantages: (1) it does not take into account the aspects of the water supply of the territories; (2) it does not fully account for the shortage of water resources and (3) it completely neglects differences in the quality of surface waters not only in the country as a whole, but also in the established regions of uniform tariffs.

In 1992, Ukrainian and Russian scientists carried out the first detailed study of norms and rules of establishing differential rates for water intake from the water-management systems. The results of this study were not implemented under conditions of deep economic crisis and slow rates of economic reforms in Ukraine. At present, there is a need for the development of new approaches to water rates, which will provide a more reliable estimation of surface water quality. On the contrary, rules and regulations regarding the accounting of the water supply of regions and the shortages of water resources in calculating the differential norms of rates for the use of water from surface sources do not require any changes.

However, the technique that accounts for the quality of water in a surface source and is used in calculating differential norms of the water rate, is not acceptable. Earlier it was proposed that the water quality factor be calculated as a ratio of the maximum (the worst) value of the Water Pollution Index (WPI) to the theoretical (desired) value of this index. However, such estimate of the water quality factor involves a number of disadvantages. The calculation of WPI does not include such important ecological indicators of water quality as total mineralization, chloride and sulfate content, hydrobiological and bacteriological characteristics, including saprobic capacity and the level of trophism, biotesting data, and indicators of the level and nature of the radioactive contamination of water.

Based on the Draft National Standard of Ukraine "Sources of Centralized Drinking Water Supply" developed by them, the authors proposed new approaches to determine the water quality factor. In accordance with the proposed standard, the indicators and specialized classifications of water quality are separated into several blocks: organoleptic; indicators of the chemical composition; microbiological; parasite; hydrobiological; indicators of radioactive safety, and harmful organic and inorganic substances. In this case, water quality can be estimated both by each of 78 separate indicators and by complex indicators (block indices) referring the values obtained to an appropriate category of water quality. An unambiguous estimation of water quality in a water body can be performed by calculating an Integral Ecological Index Ie of the quality of surface water. Values of block indices and Ie are calculated on the basis of mean values of estimates of water quality for separate indicators and expressed in 7 categories of the quality of surface water. Ie Values can be used to establish differential rates for the use of surface waters of different ecological quality.

Furthermore, the method of differentiating rates for the use of water from surface sources involves adding to (or subtracting from) the established tariff (norm of charge) of appropriate additional charges (deductions). In order to implement this method, the user must have reliable data on the limits of changes for Ie. To conclude, the authors proposed a new approach to determine the water quality factor in establishing the rate for the use of water resources. They recommend refining and revising the system of water-management regions and the related tariffs depending on changes of ecological situation in water bodies on a regular basis. ■

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GWP Consulting Partners Meeting and the 10th Anniversary

Stockholm, August 19-21 2006

AFTER TEN YEARS, GWP HAS GONE FROM DEFINING AND ADVOCATING THE CONCEPT OF IWRM INTO A PHASE OF IMPLEMENTATION.

The key players in this successful development are the GWP regions and countries. On the global arena GWP has mainstreamed its work programme with the MDGs and the WSSD. The 2005 target of having the national IWRM plans in place or at least having started the process is at the core of GWP's activities. This work meets a global demand to show real action and progress in the business of sustainable development and is the raison d'être of GWP.

The CP and the 10th anniversary recognize the successful work done by the GWP network. The theme of the CP, "The Boldness of Small Steps", is the metaphor of GWP accomplishments and their impact. The CP aims at sharing successful experiences and their self-critically assessments of these Steps. The partners in the GWP facilitation, i.e. governments, NGOs, professional societies, the donor community, international organisations and others will also be invited.

The outline of the CP 2006 Programme is to give the floor to the regions to play the key roles in the Plenary Sessions during the first day by presenting good examples of accomplishments and their impact. During the second day there will be four parallel Breakout Groups working during two sessions. The theme of the second day will be: Challenges Ahead - which tools to use to achieve our goal. Session One will address issues of the present strategy 2004-2008. Session Two will pick up issues from the first day for discussion.

The 10th Anniversary will build on the outcomes of the CP with a high-level panel and a wrap-up by the GWP Chair before the celebration. ■

CEE Water Talk

Global Water Partnership Central and Eastern Europe

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