

DANUBE WATCH

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I / 2011



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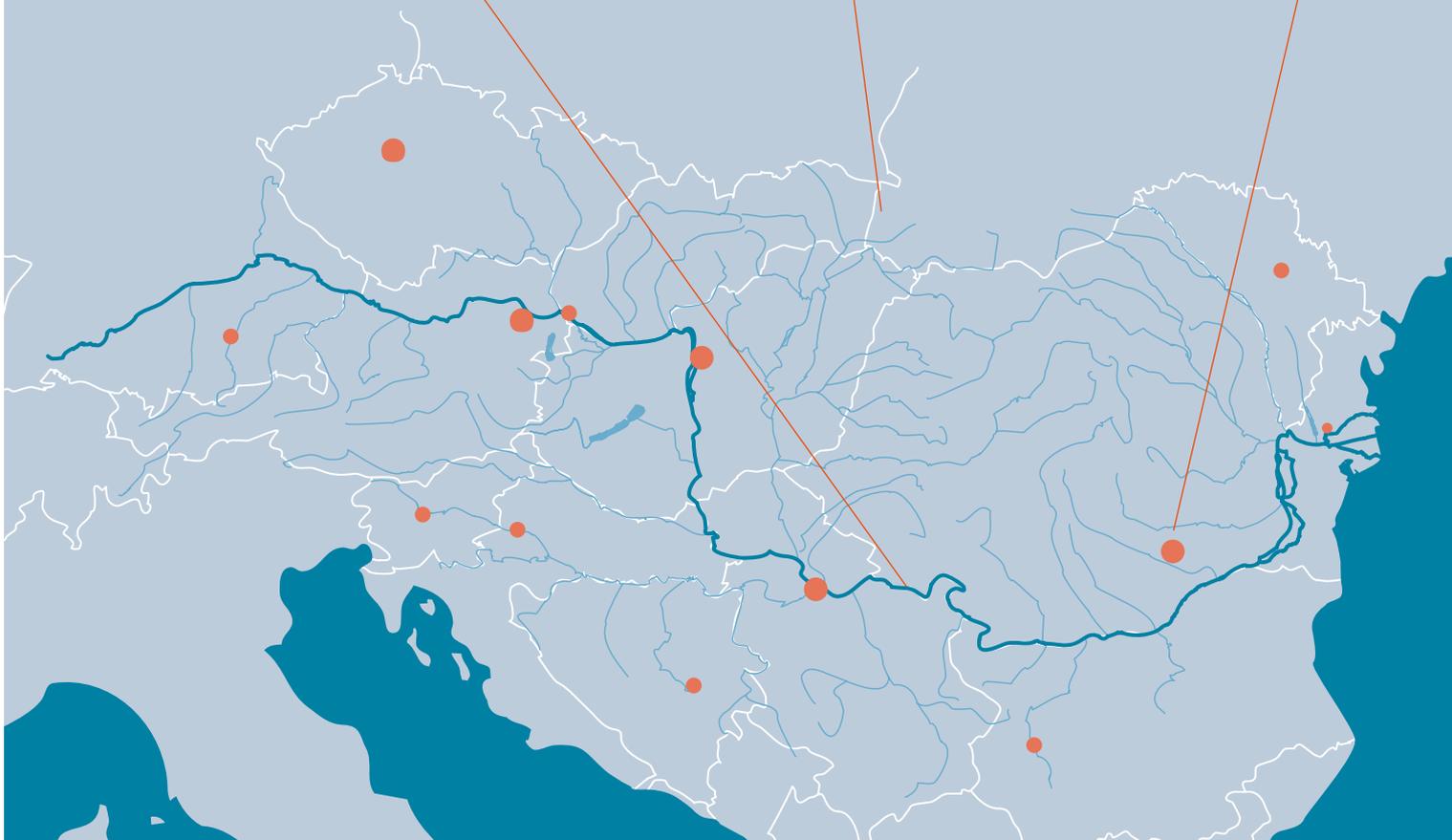
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The Danube Floodrisk Project, led by the Romanian Ministry of Environment and Forests, is improving conditions for the environment and economy in the Danube floodplains, and providing safer and more sustainable living solutions.

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Nature and time combine in one of the most beautiful national parks in Europe with one of the oldest geological histories.





Dear readers,

In spring 2010, a Ministerial Meeting was held in Vienna to adopt the Danube River Basin Management Plan. “Shared Waters, Joint Responsibilities” was the slogan and sentiment in which 14 ministers of the ICPDR countries and the Director General of DG Environment strongly emphasised the importance of intersectoral cooperation for sustainable water management. With this political endorsement, the ICPDR committed itself more clearly than ever to reach out and broaden its relations with other sectors which influence water. As part of this work, ICPDR president Mitja Bricelj attended the public meetings organised to discuss a new EU initiative to strengthen the identity and actions of the Danube region - the Danube Strategy.

A year later, the EU’s Danube Strategy is nearly finalised. The ICPDR presidency has been passed from Mitja Bricelj of Slovenia to Ambassador Mykola Melevnskyi of Ukraine. Both developments are covered in this issue of Danube Watch.

The Danube Strategy is planned to be adopted in June under the Hungarian Presidency of the EU. As a result of the ICPDR’s continuing efforts, the Danube Strategy’s Action Plan contains numerous references

to the work of our organisation. Several measures are planned to be carried out in the frame of the ICPDR. Most importantly, the Strategy acknowledges the necessary integration between development in the energy, agriculture and transport sectors and environmental protection – echoing the statement of last year’s Ministerial Meeting.

It is the pronounced hope of the Heads of Delegations to the ICPDR that the Strategy will provide further impetus for the implementation of the Danube River Basin Management Plan, which the countries of the region have prepared over the past ten years.

The 2010 Slovenian Presidency of the ICPDR put significant emphasis on ensuring that the Danube Strategy reflected the work done under the EU Water Framework Directive. The 2011 Ukrainian Presidency has pledged to continue emphasising this message. With our new President coming from a non EU-country, we can further demonstrate the importance of the ICPDR as a forum that builds links between all countries of the Danube River Basin.

Philip Weller,
ICPDR Executive Secretary



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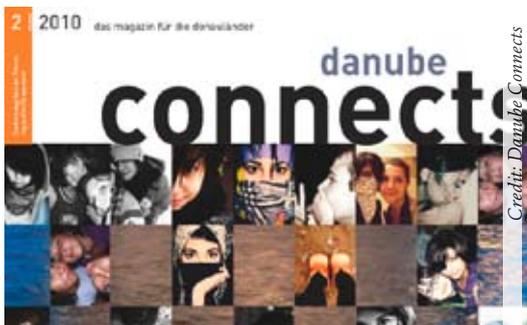


Credit: du Toit, Wikipedia/GDFP

FROM DANUBE BOX TO ORANGE BOX

The Danube Box is one of the ICPDR's most successful projects, with more than a million school children reached so far. Since its launch, this school kit has served as a model for many similar projects. The most recent is the 'Orange Box', an educational kit on the Orange River. It will help raise awareness of the need for sustainable water management in Botswana, Namibia, Lesotho and South Africa – and is another step in a fruitful relationship between the ICPDR and the Orange-Senqu River Commission.

For more information, please visit: www.orasecom.org



Credit: Danube Connects

DANUBE CONNECTS JOURNALISM NETWORK

In the last issue of Danube Watch, we reported on the launch of the 'Danube Connects' magazine from Ulm, Germany. Today, we are happy to announce that the project is gaining further momentum and the magazine is now supported by a network of journalists active in the Danube region. As with the magazine, the driving force behind the journalism network is the European Danube Academy in Ulm.

For more information, please visit: <http://danube-connects.eu>



Credit: Zanette, Wikipedia/GDFP

VIRTUAL WATER APP

Water footprint calculations are popular concepts to illustrate how much 'virtual water' is attached to products or consumer patterns. Whilst the methodologies and meaningfulness of water footprints are arguable, they can certainly be useful tools to raise awareness for the use and treatment of water. The Virtual Water Project has introduced an iPhone app that allows you to quickly calculate the water footprint of a wide range of products. Results are presented in interactive graphics.

For more information, please visit: <http://virtualwater.eu/>



Credit: Wasserpreis

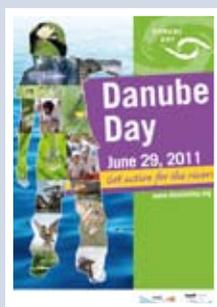
2011 NEPTUN WATER AWARD FOR VERBUND

Verbund, Austria's biggest hydropower company, won the 2011 'Neptun Wasserpreis'. The water management award has been given every other year since 1999 by the Austrian Ministries of Environment and Economy. Verbund's winning project was an effort to restore the natural course of the Traisen River, a site that was altered when the Altenwörth hydropower plant was built in 1976. The ICPDR congratulates its long-standing partner Verbund – and is happy that in another category, a Danube project won: the 'Danube Panorama Project'.

For more information, please visit: www.wasserpreis.info

29/6/2011

DANUBE RIVER BASIN



DANUBE DAY 2011: GET ACTIVE FOR THE RIVERS!

Across the Danube, planning for this year's Danube Day celebrations on June 29 is already in full gear. The slogan "Get active for the rivers" will be kept as the motto for 2011, as activity and rivers are the two key ingredients of Danube Day. Under the umbrella of the ICPDR, events will be held in all Danube River Basin countries drawing hundreds of thousands of people for the anniversary of the signing of the Danube River Protection Convention.

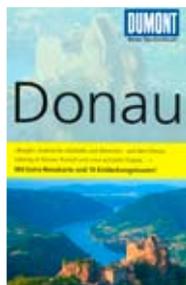
For more information, please visit www.danubeday.org.

11/4/2011

UZHGOROD, UKRAINE

RIVER BASIN MANAGEMENT MINISTERIAL MEETING

The Integrated Tisza River Basin Management Plan will be formally presented and adopted at a Ministerial Meeting held in Uzhgorod, Ukraine, on 11 April. The ministers of Hungary, Romania, Serbia, Slovakia and Ukraine will attend the meeting alongside EU Commissioner Janez Potocnik. ICPDR President Mykola Melenevskyi will chair the meeting, which marks a milestone in the history of the ICPDR, as the Tisza is one of the most important sub-basins of the Danube.



NEW TRAVEL GUIDE IN GERMAN: 'DONAU'

Dumont, one of the biggest publishers of travel literature in Europe, has produced a new guidebook on the Danube: 'Donau' is richly illustrated and covers almost the entire course of the river, focusing on the section between Regensburg and the Danube Delta. The paperback book contains a detailed fold-out map and ten suggested tours, as well as city maps to enable you to find your way round cities as different as Passau, Vienna or Budapest. One of the authors, Daniela Schily of Germany's GIZ, collaborates with the ICPDR via the Danube Competence Centre.

NEW HEADS OF DELEGATION

The ICPDR has the pleasure to welcome two new Heads of Delegation: Mr. Karl Schwaiger for Austria and Mr Istvan Kling for Hungary, both of whom attended the ICPDR Ordinary Meeting last December. The ICPDR Secretariat and Danube Watch are looking forward to supporting the new Heads of Delegation in their endeavours for the Danube River Basin.



CARPATHIAN CONVENTION AND DANUBE PARKS

At the last Ordinary Meeting of the ICPDR in December 2010, two organisations were granted observer status and thereby acknowledged as important partners: the Carpathian Convention, with its interim secretariat on the same floor as the ICPDR Secretariat in the Vienna International Centre, and the Danube Parks Network of protected areas, with its interim office at the Donau-Auen National Park outside Vienna. We welcome our new observers and look forward to productive cooperation with them!



Mykola Melenevskyi,
Ambassador at Large at the
Ministry of Foreign Affairs
of Ukraine and President
of ICPDR in 2011.

Presidency 2011: Ukraine – strong footing for the Danube

ICPDR President for 2011, Mykola Melenevskyi speaks about finding strength for the Danube through its cooperation in the Danube Delta, and the role of the ICPDR in implementing a sustainable strategy for the Danube region.

With the success of the management plan for the Danube Basin, and the creation of the Integrated Tisza River Basin Management Plan, Danube countries are ready to highlight other sub-basins and draw attention to vital needs in all parts of the basin, says Mykola Melenevskyi, Ambassador at Large at the Ministry of Foreign Affairs of Ukraine, and ICPDR President 2011.

Danube Watch: Broadly speaking, what is the significance of the Danube as a connecting line in Europe? And how will you take this link a step further?

Ambassador Melenevskyi: The Danube is the most important water route at the heart of Europe. Indeed, one can hardly overestimate the Danube's role in the economic life of the continent. International economic activity in the Danube Basin, which is intensifying in pace with the world's globalisation, puts an increased burden on its waters and environmental resources. We



share the concerns of most European institutions to take strong measures to protect the Danube and its biosphere – measures that will accommodate the principles of sustainable development and water management in the region.

The task of the international community now is to find a balance between the practical economic needs of society and sustainable development with the protection of natural resources. The ICPDR, with its mandate and expertise, is a natural fit to fulfil this task.

The common strategic principles outlined in the EU Water Framework Directive and the EU Strategy for the Danube Region have greatly benefited from the contributions of upstream countries. The 2011 Ukrainian Presidency will draw attention to vital needs relevant in all parts of the basin, in a balanced manner, especially downstream and in the Danube Delta.

To these ends, the Ukrainian Presidency will highlight the implementation of the Danube River Basin Management Plan, finalisation of the Sub-basin River Management Plan for the Danube Delta and further implementation of the Integrated Tisza River Basin Management Plan. The latter will be adopted at the Ministerial Meeting of the five Tisza River countries to be hosted in Uzhgorod, Ukraine, in April 2011.

We will also continue to pay a special attention to strengthening cooperation in the Danube Delta under the auspices of the ICPDR in order to achieve the ‘good ecological status’ of the Danube Delta. The integrated plan will be complete if we also succeed in preparing sub-basin river basin management plans for the Prut and Siret Rivers. This process has already been initiated by Ukraine and is now subject to the availability of funding.

The Presidency will emphasise the ICPDR’s active involvement in the implementation of the EU Danube Strategy with consideration to the interests of all riparian countries, especially Non-EU countries.

Danube Watch: What is the significance of management plans for Ukrainian sub-basins?

Ambassador Melenevskyi: In recent years, Ukrainian experts have been heavily involved in data collection and its analytical processing, needed for the preparation of the Integrated Tisza River Basin Management Plan. This work has been shared with experts from other Tisza countries – the Slovak Republic, Hungary, Romania and Serbia – all participating fairly in multi-lateral international cooperation.

For Ukraine, it will also be the first exercise carried out according to the provisions of the EU Water Framework Directive (WFD). Its impact is quite obvious considering the obligation to incorporate the WFD into the national framework during the ten years since the date of the anticipated signing of the Association Agreement between the EU and Ukraine. This plan will be exemplary for similar work to be accomplished and is relevant to other Ukrainian river basins.

Danube Watch: What are your plans for the Danube Delta; to what extent will you involve other organisations such as NGOs in your efforts?

Ambassador Melenevskyi: Figuratively, the river resembles a tree with its roots planted in the delta, spread into the sea. In other words, the trunk is strong if the footing is good.

Ukraine has initiated work on the Delta Plan and we consistently support the synergetic activities of all international environmental actors in the region, in

“Figuratively, the river resembles a tree with its roots planted in the delta, spread into the sea. In other words, the trunk is strong if the footing is good.”

particular cooperation with the Black Sea Commission, whose understandable concern is the river spill into the sea. At this point we find ourselves at the cross section of the vested interests of both the Commissions and can clearly see the added value of their mutual cooperation. In this regard we highly appreciate the commendable work that has been carried out by our predecessors in the Slovenian Presidency. Accordingly, we commit ourselves to continue this guideline in the Commission's activities in the spirit of policies endorsed by the ICPDR.

We have always paid attention to the involvement of civil society in the decision making process as well as in expertise work assigned by the Commission. Ukrainian NGOs are making their sound contribution to the work of the ICPDR Working Groups and implementation of relevant projects. In particular, the Odessa centre of regional studies has been appointed as the lead partner in implementing the UNEP supported project 'Joint Environmental Monitoring, Assessment and Exchange of Information for Integrated Management of the Danube Delta Region'. The project, which started at the end of 2010, aims to prepare a complex analysis report on the ecological situation in the Danube Delta. It will be the first step towards preparing of the Integrated Management Plan of the Danube Delta.

Danube Watch: How will the EU Danube Strategy affect Ukraine?

Ambassador Melenevskyi: One should always put at the forefront the consideration of how the EU Danube Strategy could benefit from Ukraine. Indeed, the political connotation of the Strategy also implies the EU attitude towards the eastern flank of the Danube River Basin, which is of primary concern for transport and energy communication routes and collateral importance to supporting future integration processes in Europe. To be a viable political instrument and demonstrate a positive social economic impact on the region as a whole, the implementation of the Strategy should provide for a number of joint projects encompassing all the riparian states situated on both banks of the Danube. Only in that case will it reflect the real interests of Brussels, EU members and non EU Member States.

Danube Watch: What influence does the ICPDR have on an international scale?

Ambassador Melenevskyi: As of today, the ICPDR is the only reliable tool to be found for implementation of the Strategy, considering its relevant mandate and the operational structure of its working bodies. The brand of the ICPDR is highly valued in Europe and its expert services are often used by other regional

stakeholders when water management issues are in question. The ICPDR working groups, enjoying wide recognition for their high expertise and experience record, will be an irreplaceable instrument in the implementation phase of the Danube Strategy.

I strongly believe that the basic principles of the Ukrainian presidency should rest upon continuity and consistency of the ICPDR activities, by absorbing the

**MYKOLA MELENEVSKYI
ICPDR PRESIDENT 2011**

Mykola Melenevskyi is Ambassador at Large at the Ministry of Foreign Affairs of Ukraine, and his background lies in the field of international affairs. From 1971 to 1976, he studied at Kiev State University at the Department of International Law and International Relations. Subsequently, Melenevskyi worked as an interpreter, first in Bangladesh for three years and later and at the Academy of Sciences of Ukraine for one year.

He joined the Ministry of Foreign Affairs in the role of Third Secretary in 1981, but returned to the Academy of Sciences in 1983 for post graduate studies.

Upon completing his studies, Melenevskyi worked at the Kiev City Trade Union council for six years until 1992, after which he returned to the Ministry of Foreign Affairs. There he served at the Embassy of Ukraine in Greece and later became head of the human rights division in the ministry's UN Department.

An assignment to the OSCE Centre in Bishkek (Kyrgyzstan) followed, before he became deputy director of the UN Division within the UN department of the ministry in 2003. Three years later, Melenevskyi was promoted to Deputy Director General for the Central European Initiative and became Ambassador at Large in 2010.

achievements and best positive results reached by the Commission so far. We are motivated to work closely with the former Slovenian and future Austrian Presidencies, the ICPDR Secretariat as well as all contracting parties in reaching these goals.

Under the Ukrainian presidency the ICPDR will continue to be focused on results-based project activities which would allow the organisation to fulfil its role as a leading international organisation in the sphere of water management of the Danube River.

"The brand of the ICPDR is highly valued in Europe and its expert services are often used by other regional stakeholders when water management issues are in question."



The playful Danube: taking games seriously

A new game puts the Danube Basin and its natural and cultural treasures in the spotlight and gives players the incentive to spend time exploring the river – proving that learning doesn't have to be boring.

How many windows does the monastery of Melk have? How many bridges cross the Danube in Austria? When does the European crayfish look for food? Players must find the answers to these and other similar questions in the new online game 'playDanube'.

The game, developed by the Austrian Ministry of the Environment, Water Management Section, takes players on an interdisciplinary journey on the Danube as they navigate a kayak along the course of the river in

Austria. Along the way, players must answer 36 questions at three different levels; the questions are chosen randomly from a large database ensuring a new experience with each game. Each question is supplemented with a short text that often hints at the correct answer, which must be chosen from multiple choice options.

For a high score, players need to circumvent obstacles, answer questions and collect bonus points on the route. If the player passes all three levels successfully,

In playDanube, players paddle a kayak along the course of the river in Austria. On their journey, they must circumvent obstacles, answer questions and collect bonus points.

FLOODSIM

The largest British insurance firm, Aviva, worked with government officials and flood management organisations in the UK to develop FloodSim to help raise awareness of floods and flood risks.

The game puts players in control of flood policy decisions and spending in the UK for three years, asking them to decide how much money to allocate to flood defences, where to build houses or how best to inform people about the risk of flooding.

FloodSim helps raise awareness for long term strategy and flood prevention, and promote better drainage and flood resilient measures for houses and businesses.

www.floodsim.com

the score is entered into the high score list, which can be an incentive to compete with other players and compare knowledge and achievements. The game is available online in German and can be played as many times as one likes, all for free.

Connecting a variety of landscapes and topics.

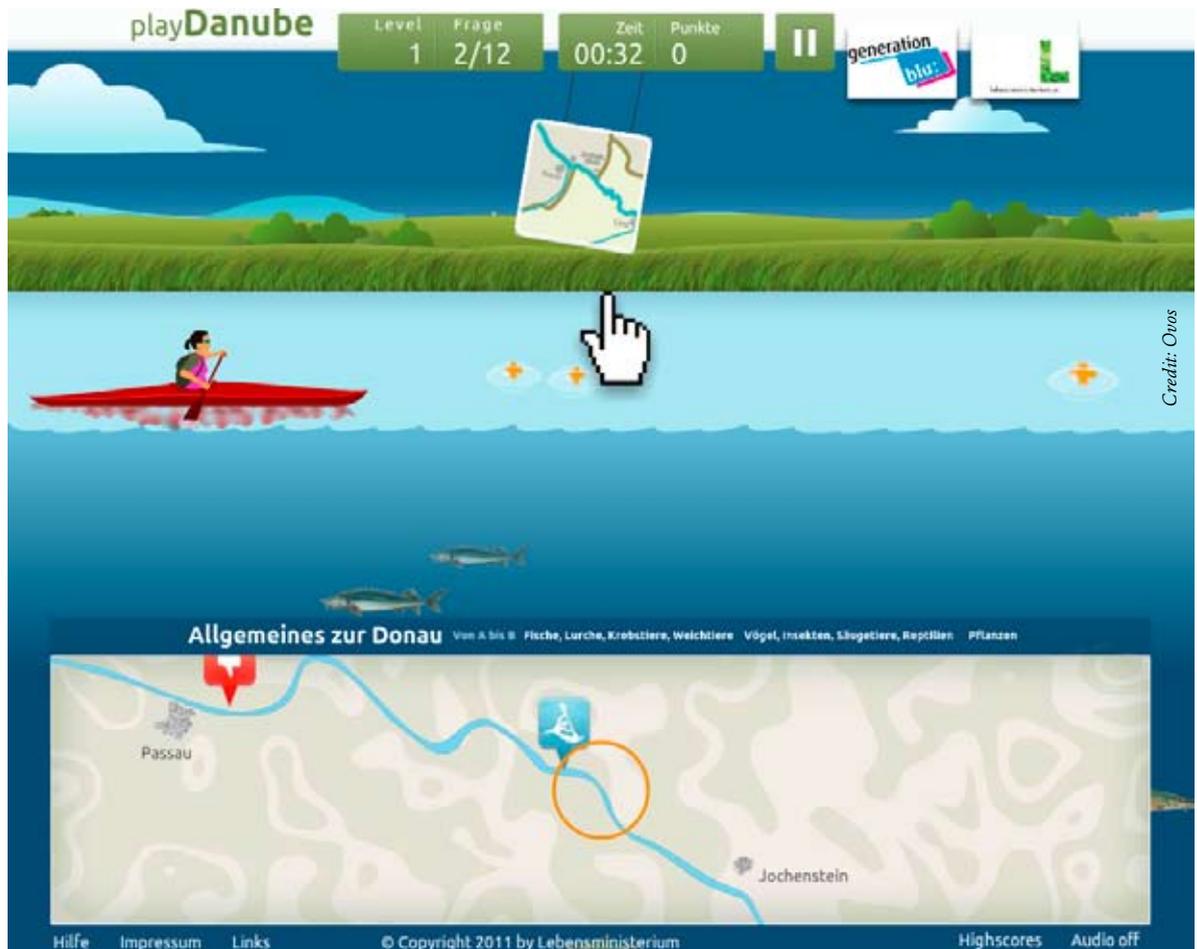
Nearly all of Austria – 97% – is part of the Danube River Basin, and in the game, the course of the Danube can be tracked in a small window at the bottom of the screen, an additional tool to teach players a sense for distances and the course of the river. This helps players recognise the connections between different, seemingly unrelated areas and create a coherent image of the Austrian Danube.

While playDanube has no age limits, it is particularly useful for children and teenagers, as it covers topics such as nature, culture, tourism, history, water management, wastewater treatment and even flood protection.

Raising awareness of the unique treasures of the Danube, as well as the problems and pressures threatening the region, is an important part of protecting this vital resource. “For me it is very important to excite people about water issues,” says Susanne Brandstetter of the Austrian Ministry for the Environment. “Why not offer them an exciting, stimulating and interactive game dealing with our most important river, the Danube?”

‘Serious games’ for serious fun. Game-based learning is a useful communication tool. The term ‘serious

Game-based learning is a useful communication tool. In playDanube, users learn about nature, culture, tourism, history, water management, wastewater treatment and even flood protection.



game' refers to games that aim to teach players facts – in contrast to jump-and-run or fighting-oriented games. Games are an innovative way to educate and entertain at the same time – 'edutain' – by utilising modern information technology.

Although the term is new, the concept of edutainment is not. At its most basic, edutainment is play, and children have always used play to learn about themselves and their world. Edutainment provides a change of pace in the classroom as well as an opportunity for the student to enjoy learning. All of us, young and old, find games engaging and we therefore voluntarily invest our time in games. Performance naturally increases when learners are engaged, so it makes sense to adapt a medium that is intrinsically motivating for education. Learning doesn't have to be – and shouldn't be – boring.

Reading, writing and... video games? Games in general present problem-based learning. Players encounter a problem: Solving a puzzle or a mystery, eluding a villain, finding a lost treasure – and must resolve it. The problem drives the learning, which many students respond to better than traditional lectures. In addition, most video games require players to think critically, handle resources and personnel to achieve a specific objective, and complete tasks at a fast pace and in quick succession.

In the United States, gaming didn't just go to school – it went to university. In 2006 the University of North Carolina at Greensboro launched ECON 201, an online game for college credit. The game blends science fiction themes and economic principles in a scenario where students must direct the actions of a group of aliens who come from a world of abundance to experience scarcity, savings and investments to trade, foreign aid, and sustainable growth. In fact, the game covers more material than a traditional introductory economics course.

Bringing technology to the environment. With simple computer games currently experiencing a renaissance as classic games are revived as mobile phones apps, there are a lot of opportunities to reach users. And playDanube, which launched in February, is already getting results.

“Our tests with various users clearly showed that playDanube is fun and teaches you knowledge about the Danube,” says Hannes Amon of Ovos, the company that created the game. “The many positive responses to the game from players confirm that our concept and our commitment in this project were right.”

The game will be an important part of celebrations for Danube Day, held on 29 June. On Danube Day, the game will be given to journalists, decision makers and

ENERCITIES

EnerCities, launched in 2010, is an educational game about energy. The game teaches players about energy sources and the balance between people, planet and profit. The goal is to create and expand virtual cities dealing with pollution, energy shortages and renewable energy.

The project raises awareness of energy-related issues and helps players to understand, and alter, their energy attitudes and behaviours.

The game's development partners included five educational institutions, an energy agency, an innovation company and a specialised serious gaming software development company. The project was co-funded by the European Commission programme Intelligent Energy Europe.

www.energycities.eu

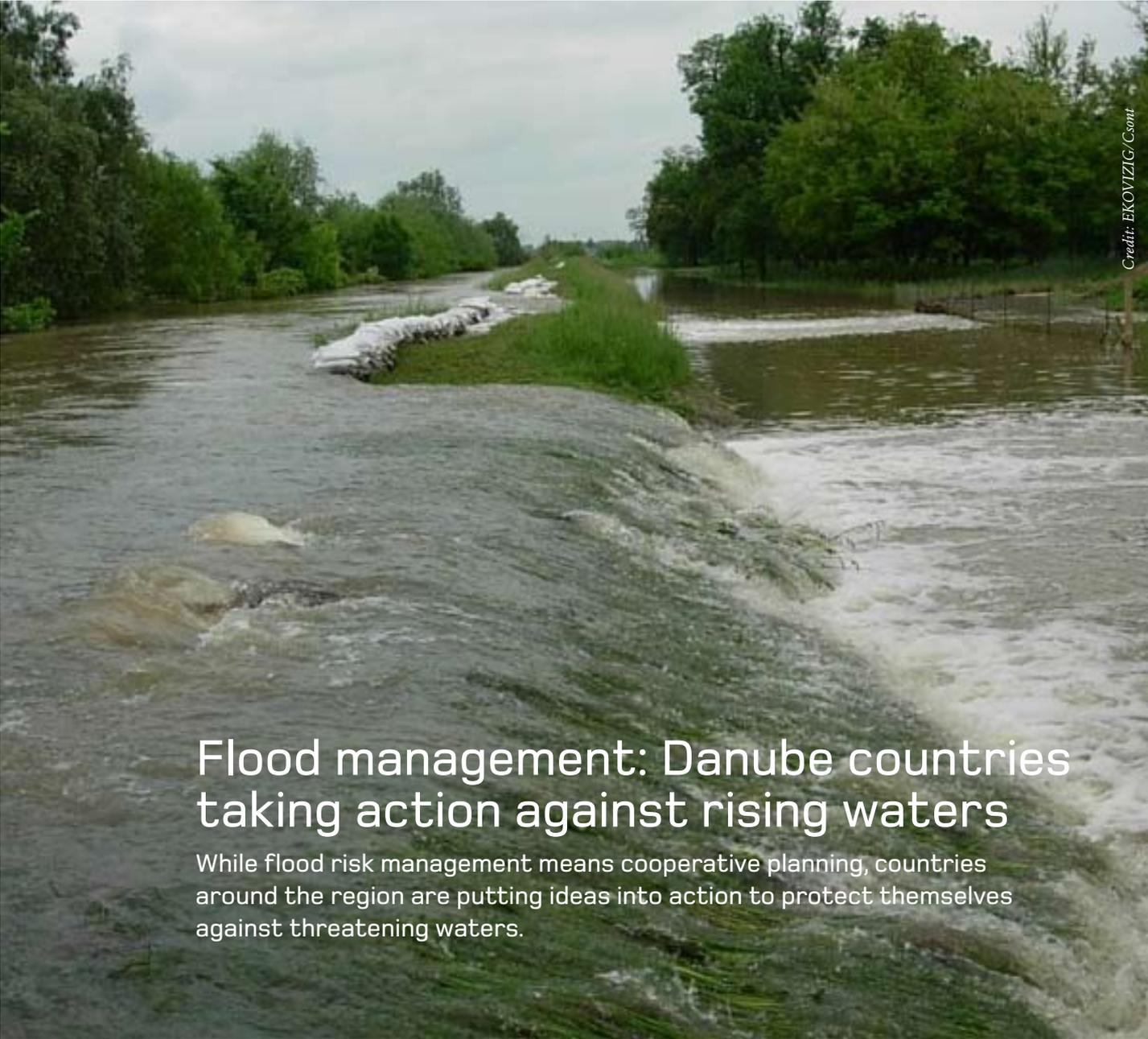


“It is very important to excite people about water issues. Why not offer them an exciting, stimulating and interactive game dealing with our most important river, the Danube?” says Susanne Brandstetter of the Austrian Ministry for the Environment.

government leaders as a CD ROM or USB memory stick. “I am proud of this product and I look forward to hearing from more players,” says Brandstetter. “We put a lot of work into the development of this game, but the results will justify these efforts.”

For more information about the game, or to try your luck as a player, please visit: www.playdanube.at.

Kirstie Shepherd is a freelance journalist living in Vienna and has called the Danube River Basin home since 2000.



Flood management: Danube countries taking action against rising waters

While flood risk management means cooperative planning, countries around the region are putting ideas into action to protect themselves against threatening waters.

Flood management plans are going into action throughout the basin, as Danube countries are turning policies and strategies into structures and rehabilitation.

In 2009, the ICPDR published 17 sub-basin flood action plans covering the entire Danube catchment area, fulfilling a key milestone of the ICPDR's Action Programme for Sustainable Flood Protection in the Danube River Basin. These plans represent unique technical planning documents providing a broad overview of the measures the Danube countries will be taking to protect their citizens against the flood risks. They are also a good basis for the preparation of flood risk management plans as required by the EU Floods Directive.

However, flood risk management in the Danube River Basin does not mean only planning future actions. Remarkable achievements in flood protection, prevention and mitigation have already been made in all Danube countries as a result of the national strategies of man-

agement of flood risks as well as a response to the ICPDR Action Programme.

New structures for protection. The upgrade of the Vásárhelyi Plan for the Tisza River in Hungary included construction of two flood retention basins. The polders Cigánd-Tiszakarádi (finished in 2008) and Tiszaroffi (finished in 2009) have a total volume of 191 million m³ that can be employed to reduce the flood peak on the Tisza. The construction of two new flood retention basins, Hany-Tizzasüly (247 million m³) and the Nagykunsági (99 million m³), began in 2009.

Between 2002 and 2007, the Czech Ministry of Agriculture ran a programme on Flood Prevention, and in the frame of this activity 75 structural flood protection measures were built in the Morava River Basin by the

river administrations with the costs amounting to 1.5 billion CZK. In Slovakia a number of structural flood protection projects have also been completed in recent years including construction of new and reconstruction of existing flood protection lines as well as the modernisation of flood protection dykes.

Ukraine spent 431 million UAH in 2006-2009 under the framework of the 'Complex Program on Flood Protection in the Tisza River Basin in Transcarpathia until 2015' to implement structural measures: 104.8 km of protective dikes were reconstructed and 44.8 km of bank protection structures were constructed. This has enabled 73 settlements and 52,300 hectares of agricultural lands to be protected.

Investing in effective measures. Under the 'Flood Protection Action Programme 2020', Bavaria spends approximately €115 million each year on flood protection (during 2006-2008 the annual budget stretched to €150 million). Approximately 75% of that budget is invested in the Danube catchment area. These investments increased flood risk protection for an additional 200,000 citizens during 2001-2005. In 2007 the polder 'Weidachwiesen' at the Iller River was completed as the first controlled flood polder in Bavaria with a retention volume of approximately 6.3 million m³.

Austria adopted the 'Flood Programme 2016', whose main goals were to improve existing measures or create new flood protection measures, both structural as well as non-structural, and to accelerate the preparation of flood hazards maps. Based on this programme Austria invests about €400 million per year into flood protection measures. An Austria-wide internet platform for natural hazards has been developed (www.hochwasser-risiko.at), in which all areas potentially affected by floods are shown.

Drafting plans to minimise risk. Using a Swedish support the Directorate for Water in Serbia developed a draft of the Flood Risk Management Plan for Tamnava River Basin in June 2010. All phases of flood risk management planning as required by the EU Floods Directive were successfully accomplished; this involved many stakeholders at national and local level.

Romanian authorities regularly update the flood protection plans, which are prepared at several levels. In March 2010 these plans were revised to include the necessary actions for 2010-2013, and for the first time they include the inundation areas presented in a GIS format showing historical data as well as the floods with different probabilities.

New legislation was adopted in Slovenia, to define the national methodology for flood hazard and flood

risk mapping, and set the preventive rules for urban planning and construction of buildings in flood hazard areas.

Rehabilitating the river's own systems. In Croatia, large alluvial wetlands have been preserved in the Central Sava Basin to reduce the maximum peaks of the Sava and Kupa Rivers during high water. This concept has proved very effective and it is an excellent model for flood-control systems: the retention areas not only reduce flood risks, they also maintain a high biological diversity in the region. The whole wetland system, though not fully completed, has proved to be very effective in recent years, protecting the major municipalities such as Zagreb, Karlovac and Sisak, and large agricultural areas, against flooding.



Flood hazard maps can help governments make decisions about land use and development to protect people living in the hardest hit areas.

In Bulgaria, a project called 'Rehabilitation and Strengthening of River and Coastal Banks on the Black Sea and the Danube' was completed in 2009, focusing on the protection of the Danube banks against erosion, to prevent the adjacent areas from a possible flood risk.

Updating emergency systems. An improvement to the early warning system monitoring the accidental pollution as well as water level has been carried out in Bosnia and Herzegovina. There are two automatic hydrological monitoring stations in operation on the Sava River in Bosnia and Herzegovina and 15 other hydrological and meteorological automatic monitoring stations on the major tributaries of the Sava River.

The above actions are only a few examples of tangible achievements resulting from flood protection policies in the Danube countries. The ICPDR regularly publishes the 'Report on Achievements in Flood Protection in the Danube River Basin', an overview of the successes in flood risk management in this area. The latest update was issued in December 2010 and is available on: www.icpdr.org.

Igor Liska is the Technical Expert for Water Quality at the ICPDR Permanent Secretariat.

Phosphates help improve the effectiveness of laundry detergents, but they also increase pollution in the Danube and can kill fish and other wildlife.



The European Commission to clean up laundry detergents

A proposed regulation would uniformly limit phosphorous compounds in laundry detergents, resulting in a major reduction of pollution loads to the Danube River and beyond to the Black Sea.

Laundry detergents promise to leave your clothes clean, stain-free and with a pleasant fresh scent. New regulation is aiming to ensure that they help to keep rivers clean too.

The European Commission has published a proposal to amend the Detergents Regulation to restrict the use of phosphates in laundry detergents across the European Union. This will be a major contribution to improving the quality of water bodies in Europe, and the Danube River will strongly benefit from the ban: no less than 16% of the Danube's phosphate loads stem from detergents.

The ICPDR played a crucial role in winning support for this regulation. "The ICPDR enabled the 14 Danube Basin States to speak with one voice on this important issue," says Fritz Holzwarth, Head of the German Delegation to the ICPDR. "If one of the biggest river basins in Europe has a clear and coordinated viewpoint on how to phase out phosphates from de-



tergents it is difficult to neglect this position.”

The trouble with phosphates. Phosphates, or compounds that contain phosphorous, are often added to detergents to make washing more effective. Phosphates soften hard water and help dissolve cleaning agents.

However, excess amounts of phosphates and other nutrients can cause eutrophication – an accelerated growth of algae and plants that leads to the disturbance in the balance of aquatic organisms. Massive algae blooms deprive aquatic life of oxygen, and can kill fish, reduce biodiversity and alter the chemistry of a water body. Removing phosphates from wastewater is expensive and requires sophisticated technology that many wastewater treatment plants do not have.

Danube countries lead by example. Danube countries have been at the

forefront of the push for phosphate-free alternatives, and several countries have already banned or limited the use of phosphates in laundry detergents. Austria and Germany have gone completely phosphate-free, and Slovenia and the Czech Republic have significantly limited the use of phosphates, by 75% and 50% respectively. Results in the Danube showed a significant reduction of pollution from phosphates.

“The fact that phosphates have been completely removed from laundry detergents in Germany for many years now proved that effective and feasible alternatives are available,” says Holzwarth. “A growing number of countries in the EU became aware of this situation and wanted to establish phosphate-free detergents on their markets as well.”

The Ministerial Declaration adopted in February 2010 by Danube water ministers stressed the importance of limiting phosphates in detergents. The Ministers described “limitations in phosphates as a particularly

cost effective and necessary measure to complement the efforts of implementing urban wastewater treatment”.

Cooperation with the detergent industry. The International Association for Soaps, Detergents and Maintenance Products (AISE) welcomes the proposal. AISE is the official representative body for detergent and cleaning product industries in the EU. It has members in 28 countries including, in the Danube River Basin, the Czech Republic, Hungary, Romania, Slovenia, Slovakia, Austria and Germany. “We are in favour of the proposed regulation for a harmonised approach across Europe,” says Susanne Zänker, Director General of AISE, and members of AISE are committed to carrying out all necessary measures to ensure the adequate protection of the environment.

However, AISE would like to see changes in the way this phosphate limitation will be expressed. In the European Commission’s proposal, phosphates restriction is expressed as a maximum percentage of total phosphorus (0.5% by weight). AISE recommends expressing the restriction as a maximum of 0.5 grams per wash.

“As a specific amount is needed, regardless of the actual dose, the expression in percentage per wash would be detrimental to our sustainability efforts to further concentrate detergent products,” says Zänker. “If product effectiveness is jeopardised”, she argues, “we could see consumers washing loads twice.”

The future of detergents. The proposal is currently with the Internal Market and Consumer Protection Committee, and a draft report is due later this spring. The ICPDR’s Pressures & Measures Expert Group will review the process considering the proposed EU regulation and assess the steps and consequences for non EU Member States.

Dishwashing detergents also contain phosphorus, and the ICPDR supports a plan to reduce and eliminate that source of phosphorus as well, although on a longer timeframe than for laundry detergents.

“If, in addition to all the other measures which are under implementation according to the Danube River Basin Management Plan, a phosphates ban for laundry detergents would be in place in 2012 and for dishwasher detergents in 2015, we could get close to allowing the Black Sea ecosystems to recover to conditions similar to those observed in the 1960s,” says Holzwarth.

Kirstie Shepherd is a freelance journalist living in Vienna and has called the Danube River Basin home since 2000.

“If one of the biggest river basins in Europe has a clear and coordinated viewpoint on how to phase out phosphates from detergents it is difficult to neglect this position,” says Fritz Holzwarth, Head of the German Delegation to the ICPDR.



The Danube Strategy emphasises the need for an integrative approach to development, and mentions the ICPDR and its work at several points, especially in the chapter on environmental protection.



The Danube Strategy: uniting policies under the roof of the river basin

The European Union's new Strategy for the Danube brings together policies and structures to provide new opportunities for sustainable development in the region.



Credits: ICPDR/Mello

The EU Strategy for the Danube Region, adopted by the European Commission this December 2010, will encompass political, social, cultural, environmental and economic issues, while balancing concerns for the environment, energy and climate policy, food and water safety and environmentally friendly navigation.

ICPDR Executive Secretary Philip Weller speaks about the challenge and opportunity the Strategy will bring for all Danube countries.

How was the ICPDR involved in the drafting of the Danube Strategy?

“The Danube Strategy is a document drafted by the Commission for the Member States of the European Union. As such, the document itself is a product of officials of the Union. The ICPDR President, the Secretariat and in particular the contracting parties to the Convention, both EU and non-EU, have nonetheless had significant input into the development of the Strategy. The Commission sought input from all relevant actors in the preparation of the Strategy (Member States, non-EU countries and NGOs). The ICPDR as one of the few institutions which is organised around the geographic territory of focus for the Danube Strategy was therefore strongly involved. The contracting parties of the ICPDR also strongly emphasised the need for the existing products of the ICPDR such as the River Basin Management Plan to be acknowledged and supported by the Strategy. The ICPDR has a mandate from the countries that make up the region to address one of the central pillars of activity of the Danube Strategy: the protection of water resources. It also has existing products and actions that should be reinforced in the Strategy.”

Looking at the EU Strategy for the Baltic Sea, critical voices have pointed out that no additional money will be spent on the Danube Strategy and that no one should expect too much.

“It is true that the three ‘NOs’ – no new legal framework, no new institutions and no new financing – have been clearly stated by the European Commission. It is my strong belief, however, that certainly in the area of water management the use of existing funds can be much better focused and directed at the most important issues. Key successes can be achieved without additional funding. In particular, it is clear that simple solutions such as a limitation on phosphates in detergents do not cost a lot of money but can have significant consequences. One of the central issues connected with water management is that it is necessary that water management actions need to be built into the actions of other sectors. The use of existing funding mechanisms (CAP funding, infrastructure funds, and other funding) to address issues in those sectors but accounting for environmental considerations is possible. The existing and future funds for the non-EU Member States can also be directed at critical issues related to water management.

“The ICPDR has also recognised that plans and governmental action alone will not ensure environmental protection. The efforts to improve water quality and reduce flood risk within the framework of the ICPDR have been reinforced by successful awareness-raising activities for citizens of the basin including the yearly celebration of Danube Day on June 29, and the creation of the Danube Box, an education kit for teachers prepared together with corporate supporters. This has both demonstrated the possibilities of cooperation

“It is my strong belief, however, that certainly in the area of water management the use of existing funds can be much better focused and directed at the most important issues.”

with business in supporting the goals of an improved environment and engaged thousands of students in learning about ‘their Danube’. These products and activities of the ICPDR can be built upon and strengthened in the development and implementation of the Strategy.”



The measures related to the Danube Strategy will largely follow the ICPDR’s Danube River Basin Management Plan of 2009.

The Danube Strategy emphasises the importance of intersectoral collaboration. How should the ICPDR contribute to such collaboration?

“Intersectoral cooperation is essential for achieving successful development in the Danube region. One of the three pillars of the Danube Strategy, currently under preparation by the European Commission, is environment. Although specific environmental initiatives in the Strategy are needed, environmental considerations must be built into all aspects of development if sustainability is to be achieved. An active process of cooperation between authorities responsible for agriculture and environment is to be supported to ensure that measures against agricultural pollution are put in place: manure storage facilities, buffer strips, fertilizer and pesticide application limits, for example. In particular a workshop involving both agricultural and water ministries is needed on the relevant instruments of the EU Common Agricultural Policy and Best Agricultural Practices for ensuring reduction of agricultural pollution.

“For the water sector in particular it is necessary that there be cooperation and coordination with the

THE DANUBE STRATEGY

The EU Strategy for the Danube Region was adopted by the European Commission on 8 December 2010. It is a comprehensive set of policies under a common roof – that of the Danube region. Formally, the strategy comprises a Communication and an Action Plan. Its implementation will start following the official endorsement by the EU Member States through the EU Council under the current Hungarian Presidency in April.

Six key areas of the Danube Strategy are:

- ↗ mobility
- ↗ energy
- ↗ environment
- ↗ risks
- ↗ socio-economic development
- ↗ security

Since many of these areas are interlinked, the strategy emphasises the need for an integrative approach to them at several points.

For the ICPDR, the environment, mobility and risks (particularly floods) are the most relevant areas. The action plan of the Danube Strategy mentions the ICPDR and its work at several points, especially in the chapter on environmental protection, which is divided into three priority areas: (1) restoration and maintenance of water quality; (2) management of environmental risks; and (3) preservation of biodiversity, landscapes and the quality of air and soil. The corresponding measures largely follow the ICPDR’s Danube River Basin Management Plan of 2009 and related activities.

In addition, the Joint Statement on inland navigation, the Platina Manual on sustainable waterway planning and the WANDA project to improve waste management are highlighted in the navigation part.

The strategy follows past examples, most importantly the EU Strategy for the Baltic Sea. Similar to this, the Danube Strategy relies on existing policies and structures – no new EU funds, legislation or structures will be created.

agriculture, energy and transportation sectors. If the actions and activities of these sectors are organised in a way that water is held in a good condition, then it is not necessary to make huge investments in improving water quality or flood protection.”

For more information about the Danube Strategy, please visit: http://ec.europa.eu/regional_policy/cooperation/danube/index_en.htm.

Benedikt Mandl is the Technical Expert for Public Participation and Communication in the ICPDR Secretariat, and the Executive Editor of Danube Watch.

The Floodrisk Project: taking action today for a more peaceful tomorrow

Partners throughout Danube countries are working together for the same shared concern and outcome: a stakeholder-oriented flood risk assessment for the Danube floodplains.

Ongoing climate change brings greater risk of floods. Although floods are natural processes, the recent increase of industrial and urban settlements in floodplains puts lives at risk and leads to immense costs in the event of flooding.

The catastrophic flood events in the Danube Basin in 2006 in particular reveal the vulnerability of our society to extreme natural events. With the increase of

project for the South East Europe Transnational Cooperation Programme. It will improve conditions for the environment and economy in the Danube floodplains, and provide safer and more sustainable living solutions. The project, led by the Romanian Ministry of Environment and Forests, integrates various stakeholders and disciplines in the most international river basin in Europe.



The Danube River is one of the most important natural axes in South East Europe, and links most of the countries in the area. Thus the improvement of the area through good examples of transnational cooperation between all countries along the river will be a brilliant model for the whole region.

Cooperation on all levels. Risk reduction in large international river basins can only be achieved through transnational, interdis-

disciplinary and stakeholder-oriented approaches within the framework of a joint transnational project. Practice has shown that starting this kind of cooperation is extremely difficult, for practical, political and financial reasons.

disciplinary and stakeholder-oriented approaches within the framework of a joint transnational project. Practice has shown that starting this kind of cooperation is extremely difficult, for practical, political and financial reasons.

With an increase in extreme natural events, partners from around the Danube Basin are working to reduce the risks associated with floods.

population and industrialisation, important economic assets accumulate behind dykes and flood protection structures and significantly increase the potential damage of extreme flood events.

Recognising the responsibility of all Danube countries to counter these flood risks, 19 partners from Danube countries proposed a three-year 'Interregional EC Project for Danube Flood Risk Delineation', which will contribute knowledge of flood processes and provide the tools to improve risk management in practice. The Danube Floodrisk Project focuses on the most cost-effective measures for flood risk reduction: risk assessment, risk mapping, involvement of stakeholders and adequate spatial planning.

The project brings together scientists, public servants, NGOs and stakeholders to develop a scalable system of flood risk maps for the Danube River floodplains. Transnational methodology and models will be defined and implemented for flood risk assessment and mapping. This will result in proposals for flood mitigation measures, adjustments of spatial development plans, assessment tools for economic development in flood plains and greater awareness of flood risk for stakeholders, politicians, planners and the public.

Mary-Jeanne Adler is the head of the Emergency Situation Management Directorate in Romania.

Hazardous substances can remain in the environment for a very long time, and harm ecosystems and human health.



Europe looks to the Danube Basin for guidance

A new activity to develop the technical guidelines for the establishment of an inventory on discharges, emissions and losses proposes to put the Danube in the spotlight as a case study for priority substances.

The Danube countries, together under the ICPDR, have a long history of successful cooperation. In fact, the region is known internationally as a model for integrated river basin management. In 2007 the ICPDR won the International Theiss Riverprize for excellence in water management, one of the most highly regarded international water management awards. Today, the transboundary cooperation and coordination reached through the ICPDR are a great success for the most international river basin in the world.

Now the Danube Basin will serve as a case study to develop guidance for the establishment of a new inventory on discharges, emissions and losses in line with the EU Water Framework Directive.

Understanding current methods. To create the guidelines, Danube countries will create a harmonised basin-wide methodology for the inventory of emissions,

discharges and losses. As an initial step, a questionnaire has been drafted to gather information on planning and preparatory work under way, water quality standards and emission data.

Currently, there are a lot of differences in how the Danube countries collect emissions data. “It is essential to harmonise methodology to facilitate the interpreta-

tion of results,” says Mihaela Popovici, Technical Expert for Pollution Control at the ICPDR Secretariat.

Linking existing registers. Danube countries will establish a link between this new inventory and those already established to avoid any reporting burdens. The European Pollutant Release and Transfer Register (EPRT) is the Europe-wide register that provides easily accessible key environmental data from industrial facilities in EU Member States and in Iceland, Liechtenstein and Norway. It replaces and improves upon the previous European Pollutant Emission Register (EPER). An interface is expected to be created to avoid duplication.

Broadening the knowledge of pollution. It will be necessary to improve and expand knowledge of the sources, pathways, discharges and losses of priority substances to allow the identification of targeted and effective control measures. The ICPDR has had a Danube list of priority substances since 2001; however this list needs to be updated to correct the data gaps that exist for some countries.

The ICPDR taking the lead. The ICPDR’s Pressures & Measures Expert Group will serve as the implementing platform for the case study and will test the guidance on priority substances under preparation right now by the Drafting Group of the EU.

Leading the activity as a case study will be an honour for the Danube countries and certainly bring greater attention to the Danube Basin. “Other countries will learn from our testing results,” says Popovici, as the results will shape future decisions.

Kirstie Shepherd is a freelance journalist living in Vienna and has called the Danube River Basin home since 2000.

The Danube Basin will serve as a case study to develop guidance for the establishment of a new inventory on discharges, emissions and losses in line with the EU Water Framework Directive.

PRIORITY SUBSTANCES UNDER THE EU WATER FRAMEWORK DIRECTIVE

The Priority Substances Directive was adopted in December 2008 to protect the environment and human health by setting limits for certain substances and groups of substances that are known to pose a substantial risk to the aquatic environment.

As part of the EU Water Framework Directive, a European ‘priority list’ of substances posing a threat to or via the aquatic environment was established.

There are currently 33 substances or groups of substances on this priority list, which was agreed in 2001, and the list will be reviewed regularly. These substances are referred to as ‘priority substances’, and those which are thought to pose the greatest threat are further identified as ‘priority hazardous substances’.

The objectives of the Water Framework Directive include the aim to achieve ‘good chemical status’ for surface water bodies by 2015. A water body will obtain ‘good chemical status’ if it meets all of the environmental quality standards for priority substances and certain other pollutants. Further Water Framework Directive obligations aim to:

- **reduce discharges, emissions and losses of priority substances to surface water bodies and**
- **stop or phase out discharges, emissions and losses of priority hazardous substances to surface water bodies.**

The Environmental Quality Standards Directive (EQSD) sets out environmental quality standards concerning the presence in surface water of certain pollutants and substances or groups of substances identified as priority on account of the substantial risk they pose to or via the aquatic environment.

For each river basin, Member States must establish an inventory of emissions, discharges and losses of all substances identified in this Directive. Using this inventory then, the European Commission can determine whether countries are reaching the objectives of gradually reducing pollution from priority substances and stopping or phasing out emissions, discharges and losses of priority hazardous substances.



Djerdap National Park: standing at the banks of history

Nature and time combine in one of the most beautiful national parks in Europe with one of the oldest geologic histories. The unique biodiversity of the area shares space with the permanent relics of eight thousand years of culture along the Danube.

Golubac Fortress was built in the 14th century, and is remarkably well preserved given its age and location. Its placement at the head of the Iron Gate gorge allowed for easy control of river traffic and made it an important military defence structure.

The Danube is at its deepest and narrowest as it flows through the Djerdap National Park.



Credit: Djerdap National Park

The Djerdap National Park is a unique European nature reserve. It's the largest national park in Serbia, and is situated in the north-eastern part of the country on the border with Romania. Covering 63,608 hectares along a hundred kilometre stretch on the right bank of the Danube, the park represents the conservation of nature and culture.

The national park is referred to as the 'river national park', since the Danube forms such a significant part of the park. One of the most spectacular attractions in the park is the Djerdap Gorge – known as the Iron Gates. It is the largest and longest gorge in Europe, made up of a network of canyons (Golubacka, Gospodjin Vir, Veliki and Mali Kaza) and valleys (Ljubovska, Donjomlanovacka and Orsavska). It is also the place



where the Danube is at its deepest (90 metres) and narrowest (150 metres).

Remarkable biodiversity. Thanks to the shelter of the Iron Gates, the unique climate and the historical development of the area, the park is a wealth of biodiversity. Over 1100 plant species are preserved in the park, such as hazel trees, nettle, lilac, silver linden, maple and downy. Djerdap National park is home to 170 species of birds – such as golden eagle, eagle owl and black stork – as well as over 50 species of mammals, such as bear, lynx, wolf and jackal. The freshwater habitats host catfish, perch, pike, chub river barbell, roach, bream and carp – as well as Goluback flies, water flowers, dragonflies, water bugs and many beetles. The meadows and pastures teem with grasshoppers, crickets and butterflies.



Over 70% of the park is covered by woods, which serve as the ideal home for insects such as stag, longhorn beetles, fireflies, bark beetles as well as ants and wasps.

However this remarkable biodiversity is at risk since the construction of the Djerdap Power Station, which has changed the flow regime, riverbanks and wildlife. The water level of the dam near Sip rose from 19 metres to 32 metres, submerging rocks that had previously contributed to the creation of eddies and vortices needed by catfish, which would often reach a weight of 100 kilograms. Other species of fish have been permanently lost because of the construction of the Djerdap reservoir – beluga and stellate sturgeon and Black Sea and Danube herring have been replaced by invasive new species from Asia.

DJERDAP THROUGHOUT THE AGES

Nowhere is nature and culture heritage as intertwined as in the Djerdap Gorge.

The breadth of history can be felt when walking through the Djerdap National Park, where it's possible to perceive how people have lived for thousands of years on the border of historical winds. Djerdap National Park is a veritable time machine, taking visitors back eight millennia to Lepenski Vir, the Neolithic fishing village that was the centre of one of the most complex prehistoric cultures.

The Romans cut a strategic road through the Djerdap Gorge and built bridges across the Danube. The Tabula Traiana and Diana Fortress are reminders of the power and richness of the Roman Empire.

Legends of the beautiful girl Golubana still live in the Sesir Tower of Golubac Fortress, whose towers and walls stand as a permanent testimony to the architectural skills and knowledge of the medieval Serbian builders and lords.

This valuable trail of the past remains in Djerdap National Park, where 40 sites were registered as immovable cultural properties, along with the four cultural monuments of great importance: Lepenski Vir, Tabula Traiana, Fortress of Diana and the Golubac Fortress.

Thanks to the shelter of the Iron Gates, the unique climate and the historical development of the area, the park is a wealth of biodiversity.

Protecting valuable resources. The Djerdap National Park was established in 1974 to protect and improve the unique natural and cultural values of the area. The Djerdap National Park was set up as a public enterprise in 1989 to manage the protected area, with its headquarters in Donji Milanovac. The cooperation of the Djerdap National Park extends far beyond the borders of Serbia, however, as the park is part of the family of Europarc Federation of European national parks.

For more information, please visit:
www.npdjerdap.org.

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Tisza River Basin Management: successful cooperation from the ground up

With the new sub-basin management plan for the Tisza, the Tisza Group and the countries of the Tisza River Basin have achieved significant progress and an outstanding example of cooperation.

The Tisza River Basin is the largest sub-basin in the Danube River Basin, and the Integrated Tisza River Basin Management Plan will be a significant milestone for the Tisza countries and the ICPDR.



Integration of water quality and quantity in land and water planning will be essential. To achieve this success in the Tisza River Basin, countries must work together and with all other partners.

Just as the Tisza river has provided a basis of life to the people inhabiting the area for centuries, the five Tisza River Basin countries – Ukraine, Romania, Slovakia, Hungary and Serbia – have come together to provide the groundwork for shared responsibility to protect the Tisza River Basin for generations to come.

Collaboration by the Tisza countries on the environmental issues of the Tisza River Basin in recent years has laid the groundwork for the development of an Integrated Tisza River Basin Management Plan.

Starting with a smaller scale. The initial step in developing the Integrated Tisza River Basin Management Plan, was to scale down the results of the recent UNDP/GEF Danube Regional Project to the Tisza Sub-basin, in order to ensure that the plan will be developed from both a ‘top-down’ and a ‘bottom-up’ perspective.

A second project supported by the UNDP/GEF focused on developing the environmental benefits of wetlands to mitigate impacts of floods and droughts and help to reduce nutrient pollution in the Tisza River Basin. The objectives of this project, called ‘Integrating Multiple Benefits of Wetlands and Floodplains into Improved Transboundary Management for the Tisza River Basin’ or Tisza Project for short, were to integrate water quality, water quantity, land use and

biodiversity objectives under the legal umbrella of the EU and ICPDR and to test new approaches on wetland and floodplain management through three community-based demonstration projects.

Demonstrating solutions. The three-year Tisza Project, begun in 2008, has entered its final stage and will organise a final Stakeholder Meeting in Uzhgorod, Ukraine in April 2011. “The meeting will introduce the Integrated Tisza River Basin Management Plan and will bring together project managers of the Tisza demonstration projects to introduce results and lessons learned,” says Peter Whalley, Project Manager of the UNDP/GEF Tisza project.

The demonstration projects focused on testing the environmental benefits of wetlands to mitigate impacts of floods and droughts and to help reduce nutrient pollution. The pilot projects provided specific results of environmentally beneficial actions like enhancing wetlands by nutrient reduction, biodiversity improvements, flood mitigation and drought impact reduction.

“Land use management is crucial for sustainable water management,” says Péter Balogh, Project Manager of the Hungarian Integrated Land Development demonstration project. “It has to be integrated in a way that takes into account cultural knowledge of the Tisza River Basin.”

Creating a plan from experience. The Integrated Tisza River Basin Management Plan includes an updated analysis detailing the pressures, gives an overview of the status of the waters of the Tisza River Basin, and identifies the measures needed to be implemented to reach good status of waters by 2015 as set out in the objectives of the EU Water Framework Directive.

Additionally, the European Commission/DG Environment provided both technical and directional support as well as co-financing project related activities.

The work done by the ICPDR Tisza Group toward the plan for the Tisza River Basin serves as a pilot programme for other European sub-basins and beyond. With the Integrated Tisza River Basin Management Plan, the ground has been set for all countries in the



Credit: Augustinus

To express their commitment to the Integrated Tisza River Basin Management Plan and achieving its goals, Ministers of the five Tisza countries will also meet in Ukraine in April. ICPDR President for 2011, Mykola Melenevskyi, has highlighted the importance of the sub-basin plan and emphasised that it will be a significant milestone for the ICPDR.

Sharing strategies that work. The plan helps countries design and implement measures to reduce pressures resulting from organic, nutrient, hazardous substances pollution and river engineering changes, as well as strategies to address measures which might have positive impacts on both water quality and quantity by mitigating floods and droughts, improving land management and reconnecting floodplains and wetlands.

“Transboundary cooperation, education and awareness-raising are significant elements of the future activities and are essential tools for the successful implementation of Tisza Joint Programme of Measures,” says Olena Marushevska, public participation expert and Project Manager of the Ukrainian demonstration project.

The work of the Tisza Group has had significant support via grants and projects from the EU and the participating countries’ governments, as well as from UNDP/GEF and the United Nations Environment Programme – Vienna Interim Secretariat of the Carpathian Convention.

THE INTEGRATED TISZA RIVER BASIN MANAGEMENT PLAN

The Integrated Tisza River Basin Management Plan is a major step toward meeting the requirements of the EU Water Framework Directive. Its aim is to ultimately introduce balance to the Tisza River Basin: a balance between the needs of the river and the needs of the people living with it.

According to the 2007 Tisza Analysis, the basin is threatened by several significant water management issues such as **organic pollution, hazardous substances, nutrient pollution and changes due to river engineering**. While these four problems were identified as significant water management issues for the entire Danube River Basin, the Tisza Analysis showed that water quantity issues can also play an important role in reaching good water status. The integration of water quality and water quantity aspects is crucial for the Tisza River Basin.

The Tisza Group and the Tisza Project experts identified an additional six issues related to the integration of water quantity and water quality, specific to the Tisza River Basin. The six issues include problems from **floods and droughts, the impacts of climate change, demands on groundwater and surface water, solid waste in the river, accidental pollution due to flooding and loss of wetlands**.

basin to work together to manage their land and water operations for the benefit of the environment and the people living in the region.

Diana Heilmann is a Project Staff member for Tisza River Basin Management at the ICPDR Secretariat.



Highlighting the stories of the Prut

The Prut River Basin comes into focus this year with greater attention from Ukraine's ICPDR Presidency and the three Prut countries working together to create a sub-basin plan for the second-longest tributary of the Danube.



Credit: CCHBC/Fallander

The Prut River begins on the eastern slope Mount Hoverla in the Carpathian Mountains of Ukraine, and for most of its length it serves as the border between Romania and Moldova.

The legend starts high in the mountains – where all rivers, real or legendary, begin. A young man named Prut falls asleep under a tree. He is awakened by a beautiful girl, named Hoverla, and they fall in love. But her father is the Mountain Tsar, and when he discovers their romance, he curses her. Unable to live without her love, she jumps from a high cliff. As she does, a terrible wind rises, whipping at the trees and landscape. When the dust settles, a large mountain stands in place of the valley. Prut hears Horverla's voice calling to him from the mountain and runs off to join her, never to return. The mountain is ever after called Hoverla. And the river, of course, is the Prut.

So begins the legend of the Prut River, which really does begin on the eastern slope Mount Hoverla in the Carpathian Mountains of Ukraine. The river flows southeast to join the Danube near Reni, east of Galati. The Prut is the second longest and last major tributary of the Danube.

“Last but not least”, however, is the message from the ICPDR President, Mykola Melenevskiy. Melenevskiy plans to spotlight the Prut River during Ukraine's presidency this year, and elevate the region to an area of particular attention. Melenevskiy will use his presidency to initialise preparation of the sub-basin river basin management plans for the Prut and Siret River Basins.

“Along with the Tisza, the Prut and Siret Rivers are among the most important international tributaries of the Danube,” says Melenevskiy, “embracing with their basins three European countries. These are the only basins of the Great Danube that do not have river basin management plans yet. Therefore, we will highlight the importance of river management development for the Prut and Siret.”

A plan for the Prut Basin. The Integrated Tisza River Basin Management Plan, due this year, has been a milestone for the ICPDR and the Danube Region.

Experts from around the basin are working to achieve a similar success for the Prut.

“The Prut River Basin Management Plan will transform current, mainly water quality-oriented management into a more integrated approach of ecosystem management to fully meet other objectives of the EU Water Framework Directive,” says Tatiana Belous, Head of Moldova’s Delegation to the ICPDR.

Bringing practices together. To create a river basin management plan for the Prut Basin, countries will need to harmonise institutional and legislative practices to improve water management and the planning of new shared projects in the basin.

“Institutionally this process could be arranged akin to the Tisza Group,” says Melenevskiy. “The basic precondition of the success is a strong political will of the parties in reaching the goals of common interest.”

And of course, the large involvement of public institutions and NGOs in the region will be needed to prepare and integrated river basin management plan and a programme of measures for its implementation.

Working together for the future. International cooperation under the framework of the ICPDR has long been a priority along the Prut. While the river begins in Ukraine, with about a third of the catchment in the country, for most of its length it serves as the border between Romania and Moldova. The three countries, all contracting parties to the ICPDR, are working to strengthen cross-border cooperation and share the development of Prut River Basin Management.

“According to the preliminary assessment of ecological status, most of the water bodies of the Prut and Siret within Ukraine have a good status,” says

“Along with the Tisza, the Prut and Siret Rivers are among the most important international tributaries of the Danube,” says ICPDR President Melenevskiy.

THE PRUT RIVER BASIN AT A GLANCE

Length:	953 km
Size of basin:	27,500 km ² (Ukraine: 8,300 km ² , Moldova: 8,200 km ² and Romania: 11,000 km ²)
Population:	Approximately 3 million
Largest cities:	Iasi, Romania Chernivtsy, Ukraine
Land use:	Predominately agriculture, with some industrial activity in Ukraine and Romania
Biodiversity:	The Prut River Basin's variety of habitats makes it an important area for aquatic birds.



In addition, cooperation will be crucial between local authorities with relevant national, regional and international stakeholders and institutions – including financial institutions – involved in different areas of water management to implement the provisions of regional plans for social and economic development.

“It is clear that one single country will not manage to implement the Water Framework Directive alone,” says Dan Carlan, Head of the Romanian Delegation to the ICPDR. “Therefore, the most important steps required by the directive should be coordinated between the three countries, starting with the definition of the good water status and ending with a joint programme of measures.”

Melenevskiy. However the experience of Romania in the development of its National River Basin Management Plan as an EU Member State “will be useful for Moldova and Ukraine for preparation of a comprehensive document”, says Melenevskiy.

All of these programmes and international attention on the area are helping to protect the river to ensure that its riches and beauty can be passed on to future generations, along with its legends.

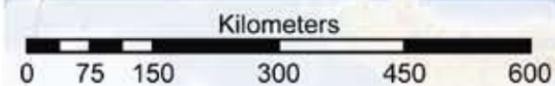
Kirstie Shepherd is a freelance journalist living in Vienna and has called the Danube River Basin home since 2000.



Creating a management plan for the Prut River will further link all levels of the river systems – from sub-basin to roof – and connect us all to the Black Sea Basin. Fold out to see a map of this region.



Lambert Azimuthal Equal-area Projection



ICPDR MEETINGS

For final dates, please consult the ICPDR calendar, available at www.icpdr.org.

5-6/4/2011	VIENNA, AUSTRIA
	THIRD MEETING ON THE FOLLOW-UP OF THE JOINT STATEMENT ON INLAND NAVIGATION AND ENVIRONMENT
7-8/4/2011	ZAGREB, CROATIA
	PUBLIC PARTICIPATION EXPERT GROUP MEETING
11/4/2011	UZHGOROD, UKRAINE
	TISZA MINISTERIAL MEETING
12-13/4/2011	UZHGOROD, UKRAINE
	UNDP/GEF TISZA PROJECT FINAL STAKEHOLDER MEETING
12-16/4/2011	UZHGOROD, UKRAINE
	TISZA GROUP MEETING
14-15/4/2011	LJUBLJANA, SLOVENIA
	FIRST APC EXPERT GROUP MEETING (AP + AEWS)
18-19/4/2011	ODESSA, UKRAINE
	33RD RIVER BASIN MANAGEMENT EXPERT GROUP MEETING
28/4/2011	LOCATION TO BE DETERMINED
	DBU – WORKSHOP ON DANUBE-RELATED RESEARCH AND ACTIVITIES
17/5/2011	VIENNA, AUSTRIA
	AD-HOC STRATEGIC EXPERT GROUP MEETING
5-6/5/2011	LOCATION TO BE DETERMINED
	ECONOMIC TASK GROUP MEETING
16-17/6/2011	KIEV, UKRAINE
	NINTH ICPDR STANDING WORKING GROUP MEETING
DW 02/11	UPCOMING ISSUE
	Focus on floods: Flood induced migration
	Sustainable flood protection
	A new chapter in the story of Hydropower?