

SAVANewsFlash

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**Third Meeting of the Parties
to the FASRB**

**Integrating Environmental Protection
into Navigation Development**

**Flood Risk Management and
Climate Change Adaptation**

**Steps Towards a Successful Public
Participation**

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INTERNATIONAL SAVA RIVER BASIN COMMISSION

SAVA NewsFlash is the official bulletin of the International Sava River Basin Commission, published twice per annum as a bilingual edition – in English and the chosen official language of the Sava Commission for each edition. It is aimed to present the review of most significant activities, projects and achievements of the Sava Commission in the fields covered by the Framework Agreement on the Sava River Basin, provide useful information and enable better communication of relevant stakeholders, as well as the wider public, with the Sava Commission, and, thereby, promote the values and potentials of the Sava River Basin.

SAVA NewsFlash is available on the website of the Sava Commission at:

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DEAR READERS,

Climate change, water and energy are three key areas of the environment, having the identified goals on international, as well as on European level. Mutual interaction in these areas demands the international community's proactive approach towards a continuous and urgent search for a solution, which is especially expected within the 6th World Water Forum – „Time for Solutions“ (March 12-17, 2012, Marseille, France).

Climate change represents a significant global challenge. These issues are in the core of the development planning, on the level of policy planning, as well as on the level of implementation of measures, especially in the water management, energy, transport, agricultural, forestry, and infrastructure development sectors. The policy planning, which would enhance the adaptation to climate change in vulnerable sectors, such as the water management, is of a crucial importance for reduction of its harmful effects. For reduction of the effects and the adaptation to climate change, modern approaches are of a key significance, while systematic changes in consumption and production in the energy sector are necessary, as well. Many of the measures and technologies, supposed to deal with the GHG emission and air pollution, are available and worthwhile. International cooperation, including the transfer of technologies, and effective financial mechanisms are necessary in order to speed up the implementation of such policy worldwide.

Climate change, human use of water resources and ecosystems, as well as an over-exploitation of the fish stock affect the water status. The international, that is, European water policy is oriented to an integrated river basin management, a combined approach to the water pollution control by using emission limits and water quality standards, raising awareness on sustainable use of water, and participation of a wide public in planning and decision making. In order to establish an integrated water management in the Sava river basin, in accordance with the Framework Agreement on the Sava River Basin (FASRB), the adoption of the Sava River Basin Management Plan, whose preparation is financially supported by the European Commission, is of an utmost importance, taking into account the requirements arising from the EU Water Framework Directive.

Energy policy presents a key challenge in the field of climate change and natural resources management. The Republic of Serbia, as a Party to the Kyoto Protocol and the Treaty establishing the Energy Community between the EU and the South-East European countries, as well as a Party to the FASRB, is undertaking significant steps towards a strategic development of energetics, based upon renewable energy sources, with the aim to reduce and restrict the emission of gases with the greenhouse effect.

The countries – Parties to the FASRB, in the framework of the International Sava River Basin Commission (ISRBC), pay a special attention to the activities related to strengthening of the transboundary cooperation in the field of water resources management, through a joint development of possible climate change scenarios on a regional level, as well as a legal and institutional framework for responses in emergency situations caused by the effects of climate change. Preparation of the Climate Adaptation Plan for the Sava River Basin, financed by the World Bank, and implementation of the project Building the Link between the Flood Risk Management Planning and Climate Change Assessment in the Sava River Basin, financed by UNECE, are of a special importance in this regard. Recently, the hydrologic model of the Sava river basin and the hydraulic model of the Sava river and its main tributaries, financed and partly realized by the US Army Corps of Engineers, were developed. These models will contribute to implementation of the Protocol on Flood Protection, signed by all Parties to the FASRB, especially through the preliminary risk assessment, the preparation of the flood hazard and risk maps, and the flood risk management plan, as well as the flood forecasting, warning and alarming system.

The strategic EU orientation towards a sustainable transport, including the river transport as well, is aimed to provide conditions for the transport systems to reach economic, societal and ecological needs, while minimizing their negative influences on the economy, society and environment. A contribution to the achievement of these goals is provided by the regional activities, that is, the work of the ISRBC, within the project Rehabilitation and Development of Navigation on the Sava River Waterway (being in its final phase), tending to balance interests and needs of the navigation sector and those of the environmental sector.

The implementation of the FASRB, and the results achieved so far, present a guarantee for a successful work of the ISRBC, as well as all other actors, in the forthcoming period, not only in terms of projects implementation, but also in terms of contribution to a general improvement of the cooperation of the countries in the Sava river basin.

Prof. Dr Miladin Avramov

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THE THIRD MEETING OF THE PARTIES TO THE FRAMEWORK AGREEMENT ON THE SAVA RIVER BASIN – MAY 31 - JUNE 1, 2011

According to Article 14 of the Framework Agreement on the Sava River Basin (FASRB), the Meeting of the Parties is foreseen to be held at least once every two years with the aim to review the work and actions of the International Sava River Basin Commission (ISRBC), make decisions based on proposals and recommendations of the ISRBC, consider and adopt proposals of new protocols and amendments to the FASRB, and consider and undertake any additional action that may be required for fulfilment of purposes of the FASRB.

Following the outcome of the 2nd Meeting of the Parties held on June 1, 2009, in Belgrade, the host country of the 3rd Meeting of the Parties is the Republic of Slovenia, and the Meeting will be held in Brdo near Kranj, on May 31 - June 1, 2011.

The forthcoming 3rd Meeting of the Parties is an opportunity for riparian states to assess the activities in implementation of the FASRB in the past two years, determine further steps necessary for achievement of the agreed goals of common interest and agree upon additional activities in respect of realization of purpose of the FASRB.

The two Meetings of the Parties, held so far, as well as the Strategy on Implementation of the FASRB, have been of a high importance for the progress made during the past period.

At the 1st Meeting of the Parties, an accent had been given to Declaration, strengthening the basis for, and defining directions of, future work of the ISRBC, and to the

adopted Methodology of Permanent Monitoring of Implementation of the FASRB, introducing a set of principles to ensure transparency in the FASRB implementation.

The 2nd Meeting of the Parties underlined the main achievements in the FASRB implementation with special regard to the First Country Reports on Implementation of the FASRB, submitted to the ISRBC by the Parties and thereof incorporated accordingly in the comprehensive Report on Implementation of the FASRB and Work of the ISRBC. The Declaration, adopted as the final act of the Meeting, provided the guidelines for further improvement of implementation of the FASRB and for the activities of the ISRBC.

In order to ensure an effective implementation of the FASRB, the ISRBC started developing a strategy on implementation of the FASRB as early as in fall 2005, soon after the establishment of the Commission. The process resulted in the first Strategy on Implementation of the FASRB as a result of the process involving a number of experts and stakeholders from the Sava river basin.

Keeping in mind the progress in the FASRB implementation during the past period, and relevant processes in the Sava basin, as well as on Danube and European levels, an updated Strategy and the accompanying Action Plan for the Period 2011-2015, were recently adopted by the ISRBC. The updated Strategy and the Action Plan will be presented at the 3rd Meeting of the Parties as a basis for harmonized and efficient implementation of the FASRB in the years to come.



In accordance with the FASRB, stipulating several areas that should be covered by additional protocols, as well as conclusions from the 2nd Meeting of the Parties underlining the significance of development of protocols, activities related to their development were intensified. The Parties signed the Protocol on Prevention of Water Pollution caused by Navigation to the FASRB, during the 2nd Meeting of the Parties, while the Protocol on Flood Protection to the FASRB was signed on Sava Day, June 1, 2010. The drafts of another two protocols, dealing with sediment management and emergency situations, are undergoing final harmonization by the Parties.

The Second Country Reports on Implementation of the FASRB, submitted to the ISRBC by the Parties include regulatory, legislative and other measures that they have taken to implement provisions of the FASRB and their practical implementation. The information and standpoints provided by the Parties in the Country Reports represent a valuable input to the ISRBC in preparation of a comprehensive report addressing the main issues relevant for the FASRB implementation, the achieved progress, significant trends and challenges that have been perceived, and the work of the ISRBC itself.

Even though the FASRB establishes good grounds of cooperation in the region in regard to waters in a very ambitious and comprehensive manner, its implementation is very demanding and requires a lot of harmonised activities. Nevertheless, a considerable progress in the implementation of the FASRB was made during the two-year reporting period. The progress, illustrated in the comprehensive Report, largely corresponds to the plans specified by the Strategy on Implementation of the FASRB and the forthcoming 3rd Meeting of the Parties is an opportunity for further analysis and settlements for improvement of cooperation in the Sava river basin region.

The main achievements in the field of water management include adoption of the Sava River Basin Analysis Report, further preparation of the Sava RBM Plan, improvement of the existing Accident Emergency Warning System, activities on the preparation of the Flood Risk Management Plan for the Sava River Basin, preparation of the Flood Action Plan for the Sava River Basin and development of a preliminary hydrologic model of the Sava river basin and the hydraulic model of the Sava river, launching of the setup of the core Sava GIS functionalities, advances toward a platform for the exchange and use of hydrological and meteorological information within the Sava river basin, as well as an active involvement in the process of development of the EU Strategy for the Danube Region, which resulted in inclusion of five FASRB-related projects in the Action Plan of the Danube Strategy as examples of projects.

The main accomplishments in the field of navigation include further development and upgrade of a set of rules related to navigation, especially further upgrading of the Navigation Rules with the aim of full harmonization on the European level as a result of the joint work of the river commissions and UNECE, preparation of the Album of Bridges and Indicator of River Kilometers, full re-establishment and regular maintenance and upgrade of the marking system on the Sava River waterway from Belgrade

to Sisak based on the decisions and coordinating activities of the ISRBC, continuation of activities on rehabilitation and development of transport and navigation on the Sava river waterway, finalization of the detailed design and the prototype installation for the Sava RIS, as well as finalization of the Nautical and Tourist Guide for the Sava River.

Conclusively, the outcomes of the forthcoming 3rd Meeting of the Parties will serve as important guidelines for strengthening the basis for further improvement of implementation of the FASRB and for defining the directions of future work of the ISRBC.

Melita Žižanović-Dakić

Special Advisor for Legal and General Affairs

Secretariat of the ISRBC



ENTERING A NEW PHASE OF COOPERATION IN THE SAVA RIVER BASIN

Last months have witnessed a considerable progress in the implementation of the Framework Agreement on the Sava River Basin (FASRB), providing further remarkable results towards the achievement of its principal goals, and gradually bringing the process of transboundary cooperation within the basin into a new phase. The two sessions of the International Sava River Basin Commission (ISRBC), held in this period (25th Session – January 25-26, 2011, and 26th Session – April 21-22, 2011), certainly represent the benchmarks for the progress accomplished, through a number of decisions and conclusions of crucial importance for further implementation of the FASRB.

DETERMINING A DIRECTION FOR FURTHER COOPERATION

In order to respond to a steady progress in the FASRB implementation during the last years, as well as to recent processes and initiatives on the Sava, Danube and European levels, relevant for the FASRB implementation, a revised Strategy on Implementation of the FASRB and the accompanying Action Plan for the Period 2011-2015 have been developed and adopted by the ISRBC.

The new Strategy has been developed with the primary intention to make a full use of the efforts and achievements in the FASRB implementation made so far, to synchronize the experiences and the new knowledge gained during the past years, to respond to, and to get involved into, the relevant ongoing processes on the Danube and European levels, and thus to further strengthen the basis for full implementation of the FASRB.

A HIGH-LEVEL COMMITMENT FOR THE NEW PHASE OF COOPERATION

Significant efforts have been invested in the preparation and organization of the Third Meeting of the Parties to the FASRB, to be held on May 31 – June 1, 2011, at Brdo near

Kranj, in Slovenia. The Meeting of the Parties is expected, not only to review and discuss the process of the FASRB implementation and the ISRBC work so far, but also to acknowledge and support the new Strategy on Implementation of the FASRB, and thus confirm the direction for the future work of the ISRBC and the Parties.

A special session of the Meeting will be dedicated to FASRB-related projects, with the main aim to present the future projects to representatives of international organizations and institutions, and provide an additional link between the projects and the frameworks for their potential implementation, such as the EU Strategy for the Danube Region.

FURTHER STRENGTHENING OF THE BASIS FOR COOPERATION

A remarkable progress has been made in the implementation of projects. The rehabilitation and development of navigation on the Sava river waterway has reached the final phase of planning. The Nautical and Tourist Guide of the Sava River has been prepared. The main activities in the field of water management include further preparation of the Sava River Basin Management Plan, in accordance with the EU Water Framework Directive, and implementation of a project linking the flood risk management planning and climate change assessment in the basin. The initial phase of the Sava GIS establishment is under development. The hydrologic model of the Sava river basin and the hydraulic model of the Sava river, being the first geo-referenced models ever produced for the whole area, have been developed in cooperation with the US Army Corps of Engineers. A system for exchange of hydrological and meteorological data within the basin, as well as new issues of the Hydrological Yearbook of the Sava River Basin, are also under development. Additionally, the preparation of a project on fostering the contribution of the small and medium enterprises to sustainable development of the Sava river basin, has been launched.

A continued development of the cooperation is taking place through meetings, training and consultation workshops, as well as by means of the public participation and stakeholder involvement activities, in accordance with a strategic orientation of the ISRBC toward the broadening of the multi-stakeholder platform in the Sava river basin to include governmental, non-governmental, business and academic sectors.

Based on these pillars, the new phase of the transboundary cooperation in the Sava river basin is expected to provide new advances toward the achievement of the main goals of the FASRB, and hence a further contribution to the progress of the whole basin.

Dr Dejan Komatina
Secretary
Secretariat of the ISRBC





INTEGRATING ENVIRONMENTAL PROTECTION INTO NAVIGATION DEVELOPMENT

The Joint Statement on Guiding Principles for Development of Inland Navigation and Environmental Protection in the Danube River Basin has been developed as a result of a cross-sectoral discussion process, undertaken by the International Commission for the Protection of the Danube River (ICPDR), Danube Commission and the International Sava River Basin Commission (ISRBC), to serve as a guiding document for the maintenance of existing waterways and the development of future waterway infrastructure, perceived as a milestone leading to the integration of environmental protection into navigation development.

Following the adoption of the Joint Statement by the three river commissions in December 2007 / January 2008, meetings on implementation of the Joint Statement are held annually, in order to review the results achieved within the process, and discuss further steps, among a variety of stakeholders from navigation and environmental sectors, and with a considerable input of the European Commission.

The 3rd meeting on implementation of the Joint Statement was held recently, hosted by the ICPDR (Vienna, April 5-6, 2011). The meeting provided a review of developments at the EU level in relation to navigation, environmental protection and regional development, indicating that the EC puts a high priority on integration of mobility and environmental protection in a way demonstrated within the process of the Joint Statement implementation through participation of officials from both environment and navigation sectors. In this regard, there are ongoing actions of the EC to prepare a guidance document on the application of Natura 2000 for waterways and their plans to present, in 2012, a blueprint to safeguard EU waters.

The current state of the ongoing navigation projects in the Danube river basin was presented and discussed, including the project on rehabilitation and development of the Sava river waterway. In the case of the Sava navigation project, it was recalled that the preliminary documenta-

tion, developed so far, had been initiated before the development and adoption of the Joint Statement. However, review of the documentation, undertaken by the EC, did aim to ensure meeting the EU standards, including the environmental ones. For further implementation, the ISRBC is planning to establish a coordinating body, intended to have a multidisciplinary character and be open to participation of stakeholders, thus resembling an interdisciplinary advisory board, as suggested by the Joint Statement.

The relevant projects and activities on the European and Danube levels were presented, as well, providing the information on the progress in the EU FP7 PLATINA project, with a special emphasis on the Manual on Good Practices in Sustainable Waterway Planning, developed within the project, as well as the WANDA project, dealing with the development of a waste management system for navigation on the Danube. The information on the system for information exchange, being developed within the Joint Statement process, was presented, as well.

A general consensus was reached on the direction needed in future – toward more transparency and systematic reporting on the ongoing and planned projects. Although a more room was given at this meeting, than at the previous meetings, to presentation and discussion of the ongoing projects, thus indicating an increased maturity of the process, a need for a more systematic reporting on the ongoing projects was identified, too. As a possible solution to this, an update provided in a template, allowing the actions to be compared, was suggested, especially if the EU could fund an additional capacity to support this effort. To this end, it was preliminary agreed that the three river commissions would meet to review the results of the meeting and agree upon the next steps.

Dr Dejan Komatina
Secretary
Secretariat of the ISRBC

THE ALBUM OF BRIDGES ON THE SAVA RIVER AND ITS NAVIGABLE TRIBUTARIES

INTRODUCTION

The Album of Bridges on the Sava River and its Navigable Tributaries (the Album) was created in accordance with the Strategy on Implementation of the Framework Agreement on the Sava River Basin (FASRB), Work Plan of the International Sava River Basin Commission (ISRBC) for the year 2010 and the Programme of Work of the Permanent Expert Group for Navigation (PEG NAV) for 2010, and it contains the review of bridges and their navigable openings with the navigation conditions at characteristic water levels.

This, first ever, issue of the Album is primarily targeting all subjects in navigation on the Sava river, but also other stakeholders, with the aim to positively influence the navigation safety by providing the information necessary for navigation through navigable openings of the bridges.

The PEG NAV, and especially the Agency for waterways from Vukovar (the Agency) and Directorate for waterways from Belgrade (the Directorate) contributed significantly to the accuracy and up-to-dateness of the Album, by providing the data necessary for its preparation.

THE ALBUM PREPARATION

During the preparation of the Album, various institutions within Bosnia and Herzegovina, the Republic of Croatia and the Republic of Serbia were consulted, while the data received from the Agency and the Directorate were submitted in various formats:

- vectoral (Autodesk Autocad format – dwg);
- raster graphics (various raster formats – bmp, jpg, tiff);
- table (MS Excel).

As the data differed in quality and level of detail, various tools were used to transform the data to the vector form, in order to be prepare it for printing.

Mostly used was Autodesk AutoCAD 2008, software licensed used by the ISRBC,

During the preparation of the Album, various software tools were used. The mostly used was the software licensed by the ISRBC, such as Autodesk AutoCAD 2008, ESRI Arc GIS 9.2, then MS Excel and MS Word, as well as various tools for the format conversion.

THE ALBUM CONTENT

The Album consists of a table and graphic presentation of information on the bridges and their navigable openings, as well as the information on relevant gauging stations and the corresponding elevations and navigable levels.

The table presentation in one place gives the information on dimensions of the bridges' navigable openings with respect to the minimum required dimensions, as defined by the classification of the Sava river waterway.

It consists of four units, marked by numbers and colours in Figure 1:

1. The information that unambiguously define the bridge and its position in river kilometres;
2. The ordinal number of the bridge columns (counting from the left to the right bank);
3. The sizes defining dimensions of the bridge navigable opening;
4. The information defining relevant gauging stations, their relevant elevations, and the corresponding navigable levels.

Figure 1: Table showing the bridges and their navigable openings.

The graphic presentation of the bridges and their navigable openings provide information relevant for navigation through the openings in several scales and views, and also enable, in a simple way, to attain the information on the available height for a given water level at the relevant gauging station.

The graphic presentations consist of four units, marked with numbers and colours in Figure 2:

1. Plan view of the bridge, R 1:5000;
2. Longitudinal section of the bridge, R 1:1000, providing information on the available width at the navigable opening for the high navigable level, bank marks and column numbers, always shown in the direction of the downstream navigation.
3. Longitudinal section of the navigable opening, R 1:500/200, showing detailed information on the available dimensions of the navigable opening and the waterway at characteristic water levels;
4. Front page with the representation of the staff gauge, where information can be obtained on the available height at the navigable opening of the bridge (in the middle and in the borders) at the current water level, as well as on the available water depth.

THE ISSUE FORMAT

The Album is issued in paperback, and its format (height A4, width 4-6 A4) makes possible to present, in adequate scales, the information necessary to users, so that the Album does not demand too much space for manipulation. The way it is tied in enables the updating only of the bridges that underwent changes.

The updated Album will be permanently available on the ISRBC web presentation (www.savacommission.org), in the digital format.

CLOSING NOTES

Regardless of its imperfections, the Album provides reliable information necessary for navigation through the navigable openings of the bridges.

As the revision of the relevant (low and high) navigable levels would enable more accurate data on the heights and depths, available at the navigable openings at the characteristic water levels, the ISRBC, with its PEG NAV, will take on appropriate steps in that sense.

Siniša Špegar

*Advisor for Technical Issues of Navigation
Secretariat of the ISRBC*

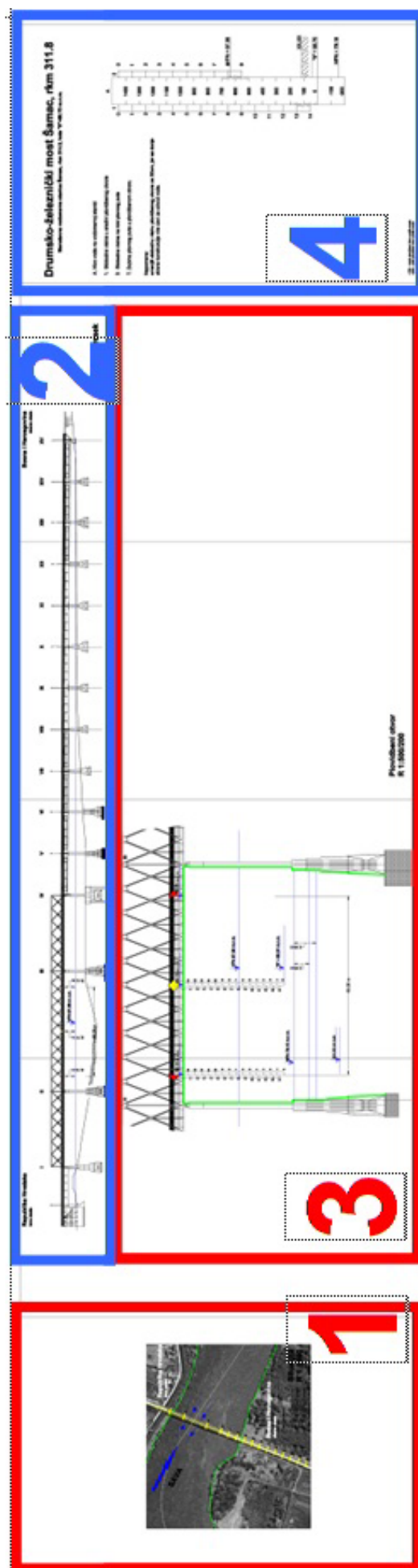


Figure 2: The graphic representation of the bridges and the navigable openings in the scales 1:5000, 1:1000 and 1:500/200



INDICATOR OF RIVER KILOMETERS FOR THE SAVA RIVER AND ITS NAVIGABLE TRIBUTARIES

In a previous issue of the Sava NewsFlash, we announced a soon publication of the Indicator of River Kilometers for the Sava River and its Navigable Tributaries (the Indicator) by the International Sava River Basin Commission (ISRBC), resulting from a need to update all changes that appeared in the waterway from the time of the last issue of the Indicator in the 1960-ies.

The establishment of the international regime of navigation on the Sava river served as a catalyst of the process, while the work itself included the realization of a number of activities related to determination of the real conditions of the navigation infrastructure. Also, the analysis of bottlenecks has been done, as well as a multiple verification of the facts with prominent experts of the waterway, with the aim to increase the safety and improve the technical standards of navigation, and thus create conditions for the navigation development in a contemporary and ecologically sustainable way.

The Indicator of River Kilometers for the Sava River and its Navigable Tributaries aims to offer an updated representation of all changes appeared in the waterway since the last edition of the Indicator to all stakeholders in the Sava basin, including the relevant ministries, port authorities, port masters, captains, ship operators and other direct users of the waterway, as well as other organizations and institutions, which would provide a significant contribution to the navigation safety in the Sava river basin.

In the Indicator, the objects on the river banks, considered significant from the viewpoint of orientation, planning, and the navigation itself, are shown for the first time.

This Indicator was prepared with a wish and ambition to be of help for the development of nautical tourism in the Sava river basin, and the objects serving to this purpose, will be included in each future edition.

This issue of the Indicator includes the Sava river from the rkm 594 to the junction with the Danube (rkm 0), and the river Kupa, as for now the only maintained and marked tributary, from the mouth to the Sava river until the rkm 5,3. Depending on the beginning of the planned activities

on development and marking of the navigable tributaries for navigation, the Indicator will also be expanded and will follow all new changes accordingly.

Unlike the previous issues of the Indicator, this one was prepared simultaneously with the newly established chainage of the kilometer marks, while at one part, a new way of determination of positions for the kilometer marks was applied. It resulted in a resolved problem of the double kilometers, which represented an obstacle to rehabilitation of the international waterway of the Sava river and its tributaries.

The bridge drafts in this issue are characterized by uniformity and validity of the data on the navigable opening width, the opening height corresponding to the high navigable level / the maximum water level, as well as the opening height for the water level „0“ at the reference water gauge. The following issues of the Indicator will certainly be more complete and comprehensive, after a period of the practical use and received feedback on the present issue.

In terms of navigation, a special attention in the Indicator was paid to the waterway sectors demanding from the viewpoint of maneuvers and governing of the vessels, which will for sure prevent larger incidents on the waterway and their possible harmful effects on both aquatic eco-systems and the water quality of the Sava river.

An updated version of the Indicator in the electronic form will be permanently available at the official web presentation of the ISRBC (www.savacommission.org), while the development of an interactive Indicator, as a special web application, is planned for a near future.

We hope that the usability of the Indicator of River Kilometers and the publication's benefits will be confirmed in practice in a very near future, thus motivating the ISRBC to undertake similar publication projects.

Goran Šukalo
Advisor for Navigation Safety
Secretariat of the ISRBC

FLOOD RISK MANAGEMENT AND CLIMATE CHANGE ADAPTATION IN THE SAVA RIVER BASIN

The Protocol on Flood Protection to the Framework Agreement on the Sava River Basin (hereinafter: the Protocol), signed in June 2010, represents a basic document defining the cooperation of the Parties to the FASRB in the field of flood risk management in the Sava river basin.

The Sava river basin is known for the rarely preserved retention areas (especially those in the Central Posavina being the greatest wetland area in this part of Europe), with landscapes of distinct beauty which are a home to rare wetland plants and animal species, being a natural water purification system, but at the same time also a part of an effective flood protection system. On the other hand, all over the world huge efforts are made, fostered in Europe as one of the highest aims of the EU Flood Directive, on restoration of such areas “lost” in the course of “development”. However, the flood events, occurring more frequently all over the world, do not bypass the Sava river basin. Recently, even the capitals like Ljubljana and the outskirts of Zagreb have been hit by floods. The possible climate change and its consequences on the water regime in the Sava river basin have been recognized also in the Protocol. According to the Protocol, one of the main goals of the Parties related to the flood risk management is to prepare the Flood Risk Management Plan (FRM Plan) for the Sava river basin as foreseen by the EU Flood Directive. According to their different status towards the EU, as well as the different course and status of water management in the past 20 years, the Parties have committed themselves to the preparation of a Program for Development of the Flood Risk Management Plan (hereinafter: the Program) to adapt and harmonize these undertakings.

The United Nations Economic Commission for Europe (UNECE) has recognized the efforts of the Parties in this field, and selected the Sava river basin as one of the

three river basins under the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention), to receive a support. Implementation of a 2-year project, financed by the UNECE grant “Pilot project on climate change: Building the link between the Flood Risk Management planning and climate change assessment”, started in March 2011, by launching six out of eight activities foreseen by the project. Besides the baseline studies on the legislation, strategies, plans and activities related to the flood risk management planning and climate change adaptation in the Sava river basin, the most vulnerable areas to floods in the Sava river basin, and the climate change scenarios for the region will be assessed. The development of the Program will be supported by the Permanent Expert Group on Flood Prevention of the ISRBC, but will also pass a consultation and discussion process with other stakeholders in the basin, relevant for the development of the FRM Plan, in order to reach a common understanding on the goals, structure, area covered, content and the deadlines for realization of the activities agreed in the Sava FRM Plan.

This project will build upon the outcomes of the already running project “Water and Climate Adaptation Plan for the Sava River Basin”, being implemented by the World Bank, which is expected to provide a climate, hydrologic and hydraulic modelling of the entire Sava river basin, an assessment of possible effects of climate change onto different aspects of water management in the basin, as well as an analysis of alternatives for adaptive management in the basin, with respect to climate change.

Janja Zlatić-Jugović

Advisor for Protection against Detrimental Effects from Waters and Extraordinary Impacts on the Water Regime Secretariat of the ISRBC



STEPS TOWARDS A SUCCESSFUL PUBLIC PARTICIPATION IN WATER RESOURCES MANAGEMENT IN THE SAVA RIVER BASIN

The Sava river basin is a very populated area in which numerous activities, such as inhabitation, economy, recreation, etc., take place. All our activities, directly or indirectly, depend upon the available water resources, but also, all those activities, in a certain manner, affect the quality and quantity of water in the basin. All this brings us to an undeniable fact that there is neither human health, nor life, without water. It is also clear that we are all direct users of the water, hence affecting both its quality and a good condition, and therefore we have to take on the costs of purification and supply of drinking water.

Accordingly, all inhabitants in the Sava river basin must understand clearly that we are all responsible for the well-being of our waters, and therefore directly for the quality of our lives.

In order to ensure public participation to a satisfactory degree for both the public and decision makers, it is of a high importance to timely inform a wide public on a planned action, in this case the preparation of the Sava River Basin Management Plan (hereinafter: the Plan). Through the media and other promotion tools (posting the information on the website of a governing body is not sufficient), we should inform the wide public regularly, before and during the Plan preparation, about the process that is taking place, about the governing authority and the goal of the Plan preparation. Also, of course, we have to make clear to the public that it is invited to take part in the process and will receive invitations to various public events.

In addition, the public should be educated about the process, the reasons behind the Plan preparation, the basis for its preparation, what it would actually mean to them, and how they can get involved in the preparation of the Plan. The public information is carried out through leaflets, posters and various brochures.

Once the wide public has been informed and educated about the Plan preparation, a certain number of stakeholders will respond. The stakeholders mean the public who,

for whatever reason, want to, or think they should be, more informed and consulted during the process. It should be kept in mind that the stakeholders would be very disappointed, if they had been included at a late stage of the process, or if they had not taken part in the Plan preparation in any way, and in certain moments, the stakeholders can be problematic and affect the process' success. Therefore, in order for the stakeholders to know even more about the process itself, and to be consulted, it is important to motivate them for a timely involvement in the process. The motivation and encouragement to an active participation is achieved through regular meetings and roundtables, where all stakeholders will be equally represented. Afterwards, seminars and workshops with the most prominent stakeholders should be organized, in order to educate them on the Plan additionally.

This process is lengthy and induces costs, however it is a necessary one, because, if we wish stakeholders to participate in the process, they have to understand what it is all about, what it means for their present and future life, how they can influence the decision, what their rights are, and, of course, they should be satisfied by the decisions made.

The "Green Action" is carrying out the project IPA CBC Croatia-Bosnia and Herzegovina entitled "Successful public participation in water resources management in the Sava river basin". The project is carried out in the partnership with the "Center for Support and Development" from Tuzla, "Green Dream" from Vinkovci and "Ecological Coalition of the Una River Basin" from Bihac/Prijedor. During the two years of the project, we intend to carry out a series of seminars, workshops and meetings with the Sava river basin stakeholders in both countries, to create manuals and conduct a promotion campaign with the help of media, in order to inform the wide public and motivate it to take part.

Irma Popović Dujmović
Green Action



ANALYSIS OF STAKEHOLDERS AND IMPLEMENTATION OF PUBLIC PARTICIPATION IN THE SAVA RIVER BASIN

One of the basic principles of a democratic society is to be informed! People should have rights to participate in the decision making processes on the issues which could influence their lives or their environment! Public participation is a core principle in sustainable water management, as required by the EU Water Framework Directive (WFD), Aarhus Convention, and the Framework Agreement on the Sava River Basin (FASRB), as well.

The EU WFD requires public participation in the river basin management planning in different forms, including “active involvement of all interested parties” or “stakeholders” in the implementation of the Directive, and in particular, “information and consultation with the public, including water users” in the production, review and updating of the river basin management (RBM) plans. The Aarhus Convention provides rights for the public to have access to information, public participation in decision making, and access to justice in environmental matters. On the other hand, the FASRB does not deal specifically with the involvement of the public and key stakeholders. Nevertheless, Article 21 foresees the basic participation form, which is also a prerequisite of any form of stakeholder involvement. The reference of Article 2 to the cooperation of the countries in harmonizing their legislation with this of the EU with the aim of carrying out the goals of the FASRB, could be seen as an indirect reference to stakeholder involvement; the latter is a clear and strong prerequisite of the EU WFD.

In the case of the Sava river basin, evidently, the cooperation and public participation process have come to a point (the fact that a RBM Plan is being prepared is indicative), that the benefits of stakeholder involvement can be grasped. It is most likely – in accordance with the international experience – that, while the implementation of the FASRB is advancing:

- either stakeholders will “demand” their involvement, since they will be asked to implement decisions pursuant to the FASRB,
- or it will become necessary to be involved in order for the decisions pursuant to the FASRB to be “implementable”.

In scope of the project Enhancement of the Stakeholder Involvement in the Management of the Sava River Basin – Towards the Establishment of the Sava Water Partnership, which is funded by the EU, UNESCO, GWP-Med and ISRBC, a Stakeholder analysis and a Feasibility study for the establishment of a Sava Water Partnership (SWP) will be prepared.

The stakeholder analysis will provide the information, necessary for designing steps and structures that will create conditions for a meaningful public participation and stakeholder involvement. It will identify the different actors (groups, institutions and individuals), that could in-



fluence/affect, or be influenced/affected by the Sava RBM Plan, the FASRB, and the SWP establishment. On the basis of a primary list of stakeholders, the interviews with the selected stakeholders from all countries in the Sava river basin have been provided, and two consultation meetings at the transboundary level will be organized in this regard (in June and September 2011, tentatively). Those meetings will assist in raising awareness on the sustainable management of the Sava river basin and the role of the ISRBC.

The establishment of the SWP will further facilitate effective coordination of stakeholder involvement in the ISRBC activities, and assist in achieving the FASRB objectives in implementation of the public participation process, particularly.

Samo Grošelj

*Deputy Secretary for Protection of Waters and Aquatic
Eco-system Secretariat of the ISRBC*

Dimitris Faloutsos

*Programme Coordinator for South-Eastern Europe
Global Water Partnership - Mediterranean*

STRENGTHENING THE PLATFORM FOR EXCHANGE AND USE OF HYDROLOGICAL AND METEOROLOGICAL INFORMATION IN THE SAVA RIVER BASIN

Probably one of the most frequent questions, asked when two people meet, is about the weather. This is a very convenient question to start a conversation. But probably we are not aware that this simple question can be answered only if the information is available through weather forecasts. Adequate hydrological and meteorological information are needed for an integrated water resources management and flood risk management, as well. Furthermore, a close cooperation in sharing data and information among relevant institutions presents a key factor for establishment and implementation of an effective flood forecasting and flood protection system.

The break-up of the integrated hydro-meteorological data exchange and information management system in the Sava river basin, two decades ago, has had a significant

impact on the data exchange between national hydro-meteorological services in the basin and restricted their capability to produce, manage and provide timely, accurate, high-level hydrological information and forecasting services to authorities, main stakeholders and general public.

The hydrological and meteorological information exchange platform, which is being developed by the International Sava River Basin Commission (ISRBC) in a close cooperation with the national hydro-meteorological services of the Sava countries, consists of:

- System for exchange of the hydrological and meteorological data and information, which aims to provide a permanent overview of the status of the water regime in the basin by offering the water users a possibility to access the basic information on the water regime from one point, i.e. the web site of the ISRBC;
- Hydrological Yearbook, providing the annual summary information on the water regime at the measurement stations, agreed as relevant on the basin level. In 2010, the 2006 Hydrological Yearbook of the Sava River Basin was issued as the first hydrological yearbook since 1986, when the last yearbook for the SFR Yugoslavia was issued by the Federative Hydro-meteorological Institute;
- Hydrological Study for the Sava River Basin, which will address all meteorological and hydrological elements relevant for the integrated water management in the Sava river basin, and will be directly used in all key activities on the implementation of the Framework Agreement on the Sava River Basin (e.g. navigation development, preparation of the River Basin Management Plan, Flood Risk Management Plan, water pollution contingency plan);
- Hydro-meteorological information and flood forecasting and warning system, aiming at improvement of the information management, hydrological forecasting and flood warning capabilities of relevant national authorities, through the establishment of a common hydro-meteorological information and flood forecasting and warning system, as well as capacity building of national authorities dealing with water management issues.

The establishment of the hydrological and meteorological information exchange platform is a demanding task, which strongly depends on available funding. The fund-raising will primarily target different transboundary cooperation programmes (e.g. SEE TCP, IPA), however a significant contribution of the Parties is needed in terms of their human and financial resources.

Samo Grošelj

Deputy Secretary for Protection of Waters
and Aquatic Eco-system
Secretariat of the ISRBC



SAVA RIVER, NAUTICAL AND TOURIST GUIDE

For centuries, the Sava river has brought people together. The Sava was used for sailing and maritime trade, while its banks saw birth of large cities. Thus it is not surprising that this river of ours bears the name which means strength and safety, and on which even the ancient gods have relied. In the same manner, in the modern times, the Sava continues to bring people that live on its banks together with its beauty and strength. It encourages people to come together to enjoy its most beautiful and useful, but also to give back even more, safeguarding the river's beauties.

Guided by these ideas, an initiative for economic networking of the regions that are naturally and geographically connected to the Sava in its entire course, from Slovenia via Croatia and Bosnia and Herzegovina to Serbia, sprung up. Regional chambers of commerce have initiated the project of regional economic cooperation, with the central point being the very Sava river.

In April of 2007, in Šabac, seventeen chambers of commerce that are encompassed by the river, signed the Protocol on Regional Cooperation. In doing so, with numerous representatives of the diplomatic core, the European Union and the International Sava River Basin Commission (ISRBC) present, the birth of the project Economic Region in the Sava River Basin officially began.

The project of the regional economic networking in the Sava basin comprises a market of about 6.9 million people and approximately 140,000 enterprises. The Protocol

defines general principles of cooperation and chambers of commerce networking in the Sava basin, work and co-operation models and the areas of cooperation. The set goals are aimed at the development of economic relations, infrastructure, environmental protection, tourism and merging of science and practice with the ultimate effects of strengthening cross-border cooperation, sustainable development and faster European integration. The river that brings people together with all of its potentials is the backbone of cooperation aimed at reaching these goals.

We are pleased to point out that an excellent partnership and a developed number of ideas for a better and fuller utilization of the river's potential, with the support from the ISRBC, have been established. A very important project, done in close cooperation with the ISRBC, is the preparation of the Nautical and Tourist Guide for the Sava River. The project has received a wider social dimension and significance given that the public in the entire region has been encouraged to think on the significance of the Sava as the potential for linking of the regional market.

This project, aimed at nautical tourism, had given life to one of the first ideas the project had in store. It is the basis for the improvement of utilization of the potential offered by this magnificent river, both in terms of sailing, and promotion of complete tourist offerings in its entire course. Based on the arrangement with the ISRBC and the agreement from August 4, 2010, which was signed in Belgrade by representatives of member chambers of commerce



of the Economic Region project in the Sava basin, with the executive research company - Vasić Borislav, LPC, from Belgrade, began the Sava river study and the preparation of the publishing material for the Nautical and Tourist Guide.

The Guide is a unique and specialized publication published in several languages, adapted to, both, nautical amateur tourists who want to learn about the beauties of this river, and to professionals who are knowledgeable in reading and using nautical maps and who want to indulge themselves into serious sailing.

The first part of the Guide contains plentiful information about tourist offerings and potentials, cultural and historical monuments along the river's entire course, from the Sava Bohinjka and Sava Dolinka springs, from which the Sava originates in Slovenia, via Croatia, Bosnia and Herzegovina, to Serbia, and Belgrade, where its confluence with the Danube is located.

The second part of the Guide includes nautical maps of the river's entire course containing information such as mileage, navigable course, accommodations, restaurants, port authorities, ports, and mooring docks for boats.

It is safe to conclude that the Nautical and Tourist Guide has laid the basis for the promotion of the Sava river as a tourist destination, in terms of establishing regional tourist market with wide selection of tourist amenities. We express great gratitude for the exceptional cooperation and support from all local self-governing entities, tourist organizations, river port authorities, river police and other services and organizations in making of this project.

We hope the readers and users of this Guide will find plenty of information, photographs and facts. We are convinced that the Guide will be useful to a large extent in tourist endeavors and sailing on the Sava river. At the same time, we welcome any remarks or suggestions that will contribute to better future editions of the Guide.

Petar Nikolić

Project Coordinator

*Vice-president, Regional Chamber
of Economy Valjevo*



Sisak

Kupa, lijeva obala, km 4.

Vinski tvornički dimnjaci i industrijska postrojenja na ulcu Kupe u Savu ukazuju na industrijski značaj grada Siska. Ipak, dojam koji ovaj sivi industrijski pejzaž ostavlja na vas svakako će se promijeniti kada zaplovite Kupom ka Sisku. Plovni je put obilježen crvenim i zelenim bovama, a dubina je oko tri metra. Ploveci 600 metara uzvodno od ulca, pred vama će se ukazati sasvim drugačiji prizor, prožet romantikom i poviješću. Na ulcu Kupe u Savu nalazi se utvrda Stari grad, građena od 1544. do 1550. godine. Dio zidina izgrađen je od cigla iz perioda antičke Siscije, a utvrda je podignuta radi obrane od turskih napada, koji su predstavljali stalnu prijetnju. Pod ovim zidinama turika je armada 22. juna 1593. godine doživjela strahovit potaz, u kome je poginuo i sam Hasan-paša Predojević. Ova je bitka bila preokretница koja je osujetila dalje prodore Turaka u Europu. Od obale Kupe do ulaza u utvrdnu vodi kameno stubište, na kome postoje alke namijenjene za privezivanje čamaca. Ako dolazite jahtom, ostavite je usidrenu, pa pomoćnim čamcem pristanite uz stubište. Obilazak utvrde s vodičem traje nešto duže od pola sata i jedinstven je doživljaj, prije svega zbog prekrasnog pogleda

na dvije rijeke, koji se pruža s tvrđave. U krugu utvrde organiziraju se različite manifestacije – Sisački viteški turnir, Savski sajam (posvećen plovidbi, turizmu, ribolovu i gastronomiji), brojna vjenčanja i koncerti.

Sisak spada u najstarija naselja sjeverozapadne Hrvatske, jer tragovi urbanog naselja na ovom prostoru sežu sve do 4. stoljeća prije Krista. Ovo područje naseljavaju Kelti iz plemena Segestani, miješajući se s ilirskim starosjediocima, a zajedničkom naselju daju svoje ime – Segestika. Rimljani ga osvajaju 35. godine prije Krista, nakon jednomjesečne opsade i tada u grad ulazi mladi car Oktavijan, a vojskom od 12.000 ljudi. Oktavijan osniva rimski vojni logor – Sisciju, koji uskoro dobiva status grada. Rimsko Siscija je imala luku na Kupi, a od uređine 3. stoljeća i kovnicu novca koji se koristio na čitavom području Rimskog



Stara dizalica
Old crane

