



**REPORT  
ON THE IMPLEMENTATION OF THE  
FRAMEWORK AGREEMENT ON THE SAVA RIVER BASIN  
IN THE PERIOD APRIL 01, 2018 – JUNE 30, 2019**

**8<sup>th</sup> Meeting of the Parties to the FASRB  
Sarajevo, October 24, 2019**



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## FOREWORD

At the outset, I wish to emphasize that this Meeting of the Parties to the Framework Agreement has been organized before the “normal” period of two years between the meetings. In my opinion, this is a good sign and means that some concrete results of the cooperation of the Sava countries need to be presented or accepted at this meeting, which is the highest decision-making mechanism under the Agreement.

In this regard, I would like to emphasize two very concrete results: (i) preparation of the first joint Flood Risk Management Plan in the Sava River Basin, presented here as an official proposal of the Sava Commission, and (ii) completion of a very complex joint effort - establishment of an operational version of the Flood Forecasting and Warning System for the Sava River Basin.

Significant efforts were invested in all other areas of cooperation to make further progress in the implementation of the Framework Agreement. In *water management*, significant progress has been made towards the development of the second Sava River Basin Management Plan. In *navigation*, the efforts were focused on removing the bottlenecks on the critical sectors of the Sava River waterway, and on the continuation of the work on standards related to navigation, in line with the latest EU advances in the field. Regarding data and information exchange, both geographic and hydrological information systems were significantly improved. Of the concrete products that are an example of good cooperation between countries through the Sava Commission, I would like to mention the hydrological model of the entire Sava River basin, which is currently being upgraded, and the hydraulic model of the Sava River and major tributaries delivered to countries for use in 2019.

More attention is invested in issues of sustainable development. After preparation of the *Joint Plan of Actions for the Sava River Basin* in 2017, a programmatic document which outlines the path towards

further development of the region, the Sava Commission actively participated in the follow-up activity - preparation of the *Sava-Drina River Corridor Integrated Development Program*, led by the World Bank, by providing necessary information and through meetings and dialogue with the bank’s representatives. The Commission also invested a lot of time in preparation of project proposals aimed to support planned activities in line with the Framework Agreement and its protocols in force.

Due attention has been paid to the stakeholders’ involvement, again with emphasis on involving the young generation in discussion on the issues of basin-wide concern.

There is growing interest in the results of cooperation between countries within the Sava Commission. Over the past period, we have presented our work and experiences at various international events and hosted representatives from institutions from almost every continent.

I would like to emphasize that it is an exceptional honour for me to chair of an international organization such as the Sava Commission.

At the end of this short address, I would like, in the capacity of the Chairman of the Sava Commission, to thank to all those who have contributed to the results achieved: the responsible institutions of the Parties, the representatives of the countries in expert groups of the Commission, the Secretariat, my colleague members of the Commission and all other individuals and institutions who contributed to our work and supported our programs and projects.

I look forward to continuation of this joint work in the future.



Igor Pejić, Chairman of ISRBC

## 1. Introduction

Framework Agreement on the Sava River Basin (FASRB) was signed on December 3, 2002, at Kranjska Gora, and entered into force on December 29, 2004. It represents a unique international agreement that integrates all aspects of the water resources management.

The key objective of FASRB is transboundary cooperation to achieve the following goals:

- establishment of an international regime of navigation on the Sava River and its navigable tributaries,
- establishment of sustainable water management in the Sava River Basin, and
- undertaking of measures to prevent or limit hazards, and reduce and eliminate adverse consequences, including those from floods, ice hazards, droughts and incidents involving substances hazardous to water.

The basic principles stipulated by FASRB include:

- cooperation based on sovereign equality, territorial integrity, mutual benefit and good faith in order to achieve the goals of FASRB, as well as based on regular exchange of information within the basin, cooperation with international organizations, and being in accordance with the EU Water Framework Directive (2000/60/EC), and
- reasonable and equitable use of the water resources, applying measures aimed at securing the integrity of the water regime in the basin and reducing of transboundary impacts caused by economic and other activities of the Parties, and respecting the “no harm rule”.

FASRB is implemented by the Parties through their nominated national institutions. The implementation is coordinated by the International Sava River Basin Commission (ISRBC; Sava Commission). ISRBC consists of two representatives of each Party, one member and one deputy member. It is mandated with a number of tasks and responsibilities as specified in Annex I to FASRB – Statute of ISRBC, and is given capacity for making decisions on its own work, budget and procedures and in the field of navigation and providing recommendations on all other issues. The permanent Secretariat, seated in Zagreb, serves as its executive body. Valuable support to ISRBC is provided by six permanent, three *ad hoc* and one task expert groups, which are active at the moment.

ISRBC held 51 regular and special sessions since its establishment on June 27, 2005. In addition, six strategic meetings of ISRBC were also organized in order to discuss certain strategic issues. Within the reporting period (April 01, 2018 – June 30, 2019) three regular sessions of ISRBC were organized.

An ordinary Meeting of the Parties (MoP) is foreseen to be held at least once every two years with the main aim to continuously monitoring the implementation of FASRB. MoP reviews the work of ISRBC, makes decisions based on its proposals and recommendations, and gives directions for further actions that may be required for the achievement of the goals of FASRB.

Seven MoPs have been held so far: Zagreb, June 1, 2007; Belgrade, June 1, 2009; Brdo, May 31 – June 1, 2011; Sarajevo, May 31, 2013; Zagreb, December 2, 2014, Belgrade, June 1, 2016 and Bled, June 7, 2018. In addition, two ministerial meetings (Belgrade, June 16, 2014 and Brčko, July 6, 2015) were organized to discuss the FASRB implementation, with the focus on flood protection issues.



*Figure 1. Seventh Meeting of the Parties –Bled, June 07, 2018*

According to Article 14 of FASRB, Sava Commission is required to submit the report on implementation of the Agreement to the MoP. This Report outlines the main achievements in the FASRB implementation made so far, focusing on the period as of April 01, 2018 to June 30, 2019. The strength of conventions and their protocols lies primarily with their successful implementation at the national level. In accordance with the Methodology for Permanent Monitoring of Implementation of FASRB, all the Parties have submitted, through the bodies stipulated in Article 6 of FASRB, the reports on implementation of the Agreement involving the legislative, regulatory or other measures that they have taken in order to implement the provisions of FASRB. So, the Seventh Country Reports provided good opportunity to assess progress towards the targets set out in FASRB, drawing upon an analysis of the current status and trends in the fields of water management and navigation, and actions taken to implement FASRB at the national level, as well as to consider what further efforts are needed. Main finding of the country reports are incorporated in this summary report. However, in line with the abovementioned methodology, integral versions of all country reports are available at the ISRBC's web site ([www.savacommission.org](http://www.savacommission.org)).

A detailed overview of the activities and results in the reporting period has been provided in Sections 2-8 of this Report. The annexes to the Report, provided for completeness of information, contain the lists of nominated national institutions of the Parties (Annex I) and of the ISRBC members and deputy members (Annex II), international agreements relevant for the Sava River Basin (Annex III), the FASRB-related projects, launched, implemented and ongoing during the reporting period, as well as the planned projects (Annex IV), selected events organized or co-organized by ISRBC (Annex V). The list of acronyms and abbreviations is given in Annex VI to the Report.



## **2. Integrated water management**

In the reporting period, significant efforts were invested in continuation of all activities related to integrated water management, including those in the second cycle of river basin management planning, flood risk management, sediment issues, prevention of accidents, as well as in the development of related integrated systems including further enhancement of hydrologic and hydraulic models.

However, the finalizing of the first joint Flood Risk Management Plan (Sava FRMP) and the establishment and putting into operational use of the Flood Forecasting and Warning System for the Sava River Basin (Sava FFWS) must be highlighted as the most measurable results in the joint efforts of the cooperating countries.

Taking into account that a majority of activities are implemented through the projects significant efforts are invested in the preparation of various projects aiming to support achieving the targets in the priority areas of cooperation, agreed by the Parties.

### **2.1. River basin management**

Development of the River Basin Management Plan for the Sava River Basin (Sava RBMP) is required by Article 12 of the FASRB and represents the most important task in reaching one of the ultimate goals of FASRB – the establishment of sustainable water management in the Sava River Basin. Following the approval of the first Plan at the 5<sup>th</sup> Meeting of the Parties (Zagreb, December 2, 2014), activities of the second RBM planning cycle started in 2015 and continued thereafter. Based on the second Sava River Basin Analysis Report and Interim Overview of the Significant Water Management Issues in the basin, adopted by the Sava Commission in 2017, an outline of the 2<sup>nd</sup> Sava RBMP has been developed. The Outline, in its nature a living document, has been prepared with special attention paid to the weaknesses and gaps identified during the development of the first plan.

The Parties to the FASRB reconfirmed their commitment to ensuring adequate human and financial resources for preparation of the 2<sup>nd</sup> Sava RBMP at the 7<sup>th</sup> meeting of the Parties. Further steps towards the development of the second Sava RBMP are carried out at the expert level, through work in the related ISRBC expert groups. However, an external financial support is deemed necessary for the development of the full-fledged Sava RBMP. The EEA and Norway Grants Fund for Regional Cooperation has been identified as an opportunity for gaining such support. In that regard the project concept note titled *“Development of technical basis for international river basin management planning in the Sava river basin: An innovative filling of gaps in transboundary water management”* has been developed and submitted to the abovementioned fund in June 2018. The main aim of the project is the preparation of the 2<sup>nd</sup> Sava RBMP, which should fill the major gaps of the first plan using innovative and state-of-the-art methodologies in transboundary water management and should also benefit from knowledge-sharing and the exchange of good practices in river basin management in Europe and, in particular, in the Danube River Basin. The project concept has passed the first stage selection as one of the 40 proposals out of more than 700 submitted. Full project proposal has been prepared for submitting in July 2019, for the second and final stage of assessment.

Protocol on Sediment Management, which has been in force since October 2017, provides for the exchange of information between the Parties on planned dredging on an annual basis through the Sava Commission. For that purpose, the template for provision of the required information has been developed by the Sava Commission and distributed to the Parties in March 2019. Relevant information on location and type of dredging, an assessment of sediment quality



and quantity as well as an information on disposal and the treatment of sediment is expected from national authorities by spring/summer 2019. The Parties will submit the report on realization of the activities in 2019 by the end of March 2020.

Taking into account that agriculture is closely connected with water resources management the Regional workshop on challenges and needs of the water and agricultural sectors in the Sava region was organized in cooperation with the International Commission for the Protection of the Danube River (ICPDR) in February 2019. The main aim of the workshop was to obtain more detailed insight from the Sava region on the challenges, needs, interests, expectations and constraints of these sectors and to have an understanding what policy tools and measures are in place, planned to be introduced or still missing in the Sava countries, which can help achieving sustainable agriculture in the region. The recommendations from the workshop will contribute to further development of the guidance document as a strategic framework providing consistent approaches into which the Danube countries may and will be encouraged to integrate their individual national methods.

## **2.2. Flood management**

Finalization of the Sava FRMP and put into operational use of the Sava FFWS are the main achievements in the reporting period, as indicated above.

The joint Sava FRMP has been prepared in line with the Protocol on Flood Protection to the FASRB and in accordance with the EU Floods Directive (2007/60/EC). The plan set up common objectives of flood risk management on the basin-wide scale, and ensured a consistent and coordinated approach in management of flood risks in the basin. It should be emphasized that, in addition to the Parties, Montenegro was also actively involved in the development of the plan, thus ensuring the integrity of planning for the entire basin.

Common understanding of the objectives of flood risk management of mutual interest in the basin, and the identification of mutual benefits for the Sava River countries represented the basis for compilation of measures that may not, by their magnitude or impact, significantly increase the flood risk on the territory of the other country, unless those measures are coordinated and agreed between the countries concerned.

Article 6 of the Protocol on Flood Protection establishes the obligation to identify areas of mutual interest for flood protection at the Sava basin level (AMIs), as basic units for analyzing the flood risks in the Sava FRMP. Accordingly, 21 AMIs have been identified, with a total surface of 5,659 km<sup>2</sup>, representing 5.8% of the Sava River Basin area and home to 1.4 million people.

38 structural measures were identified in AMIs with a total value of over € 250 million. They are determined on the basis of national flood risk management plans in Croatia and Slovenia, and on the basis of strategic and planning documents in Bosnia and Herzegovina, Serbia and Montenegro. The national measures presented in the Sava FRMP contribute to reducing the chance of duplication of works for the purpose of reducing the risk and mitigating the consequences of flooding at the Sava River Basin level.

42 non-structural measures were also identified. They mostly relate to the entire AMIs or the Sava River basin as a whole. Special importance during the identification of non-structural measures was given to data collection, preparation of studies and other activities aimed at improving the basis for the next planning cycle.

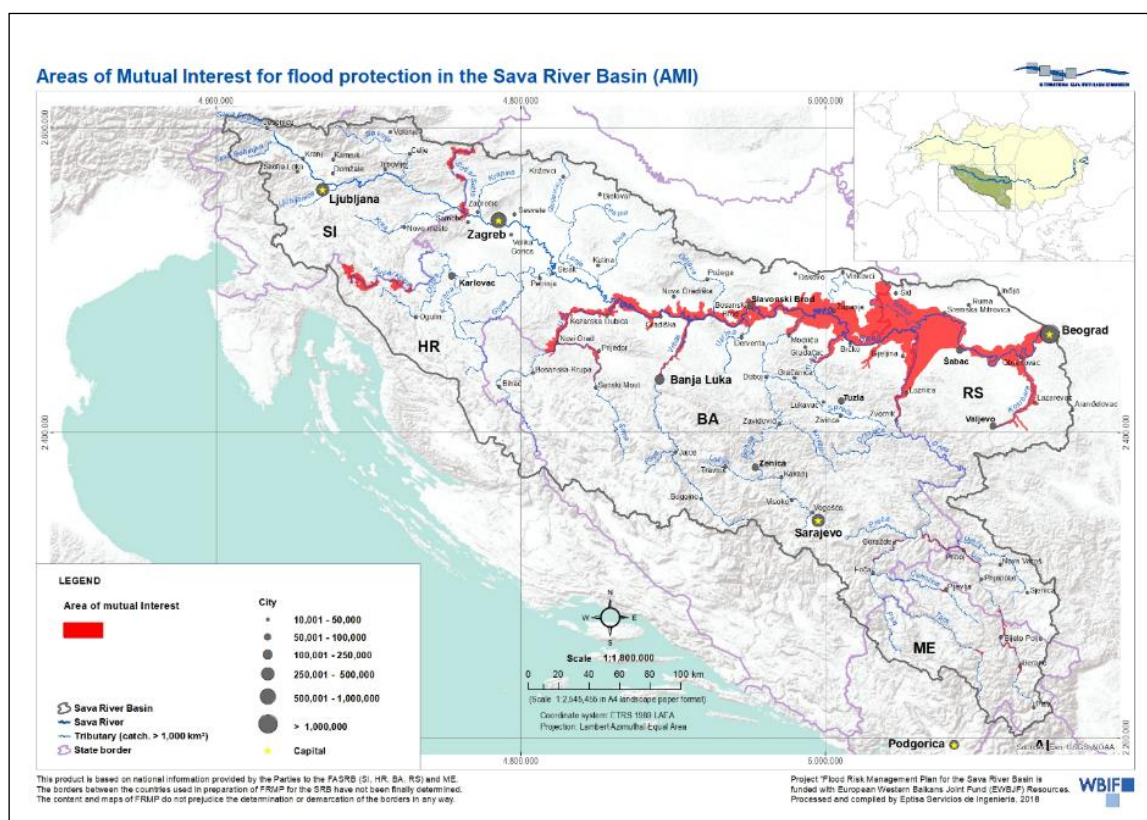


Figure 2. Areas of Mutual Interest for flood protection in the Sava River Basin – draft Sava FRMP

The plan also discusses the relationship of the proposed measures with the Sava RBMP and provides a preliminary estimate of structural measures by different parameters. Climate change and its possible impacts on flood risks were also briefly elaborated in the plan.

Coordination mechanisms and cooperation at the Sava River Basin level in case of extraordinary flood defense situations were also analyzed, with recommendations for improvements.

ISRBC has delivered Sava FRMP as its official proposal<sup>1</sup> to the Parties and Montenegro in English and all official languages. The approval of the Sava FRMP is expected on the 8<sup>th</sup> Meeting of the Parties.

Another important recent result of the co-operation of the countries is the establishment of Sava FFWS. The activity, formally launched in June 2016, has been successfully completed by the handover of the fully operating version of the system on October 25, 2018. Since then the Sava FFWS is in operational use. Sava FFWS is based on the Delft-FEWS platform, which has been applied in a number of basins around the world. The platform is flexible and allows integration of all meteorological, hydrological and hydraulic models used in the basin. The system itself is complex, since it is designed in the form of a single central system server and three backups, located in four countries, along with a part of the system (archive and web server) located in the headquarters of the Sava Commission. However, such a system architecture enables active co-operation of all national institutions and at the same time ensures a sense of ownership. The following table lists the beneficiary institutions and the role of each of them in the system, agreed for the first phase of its operational use.

<sup>1</sup> Available at the web page of ISRBC:

[http://www.savacommission.org/dms/docs/dokumenti/sfrmp\\_micro\\_web/sfrmp\\_officialproposal/savafrmp\\_eng.pdf](http://www.savacommission.org/dms/docs/dokumenti/sfrmp_micro_web/sfrmp_officialproposal/savafrmp_eng.pdf)

Table 1. List of the Sava FFWS beneficiary institutions

State	Institution	Note
Slovenia	ARSO, Ljubljana	Central server
Croatia	DHMZ, Zagreb	3 <sup>rd</sup> backup
	Hrvatske vode, Zagreb	
Bosna and Hercegovina	FHMZ, Sarajevo	
	RHMZ RS, Banja Luka	
	AVP Sava, Sarajevo	2 <sup>nd</sup> backup
	JU Vode Srpske, Bijeljina	
Serbia	RHMZ, Beograd	1 <sup>st</sup> backup and test system
Montenegro	ZHMS, Podgorica	
	ISRBC	Archive and web server

Sava FFWS will surely contribute strongly to the strengthening of organizations responsible for hydrometeorological services and flood defense in the Sava countries. The system is also an added value to existing national systems and it is expected that a common forecasting platform will provide a better level of preparedness and optimized mitigation measures, thereby significantly contribute to reducing consequences of flooding.

Bearing in mind that Article 9 of the Protocol on Flood Protection requires of the Parties to ensure regular maintenance of the system after its establishment, a Memorandum of Understanding on cooperation concerning regular functioning and maintenance of the Flood Forecasting and Warning System in the Sava River Basin, which precisely defines the rights and obligations of all users in the operational phase of the system, has been developed. The signing of the Memorandum is expected on the 8<sup>th</sup> MoP.

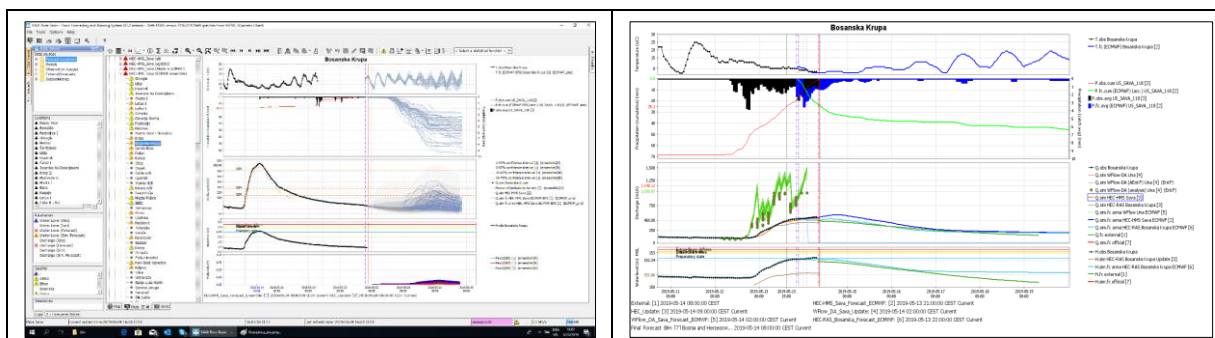


Figure 3. Sava FFWS in operational use

The long-lasting collective effort – development of Sava FRMP and Sava FFWS was backed up through technical assistance provided by the Western Balkan Investment Framework (WBIF) through the project *Improvement of joint Flood Management Actions in the Sava River Basin*. The project was administered by the World Bank (WB), and successfully finalized by the end of 2018.

A long-term support of the U.S. Government has been continued and finalized in the reporting period with major results made regarding the hydrological-hydraulic modelling. After delivery of the final hydrological model for the entire Sava River basin and separate models for the major tributaries to the institutions of the Sava countries in January 2017, the hydraulic model for the Sava River and its major tributaries, using the new model elements/structures and a LiDAR-based geometry, has been successfully finalized and delivered to the countries in May 2019. An advanced training workshop on hydraulic modelling for participants from national institutions was conducted in May 2018.



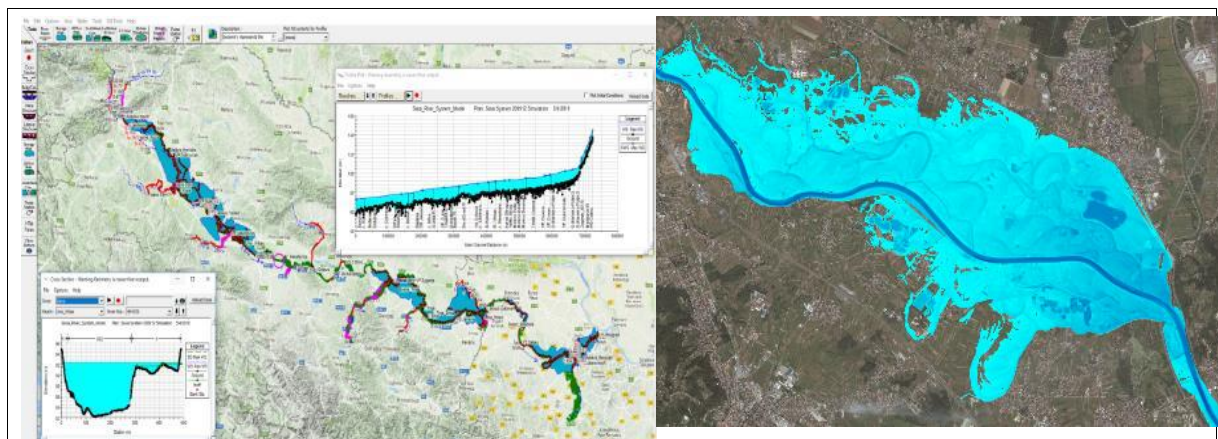


Figure 4. Sava HEC-RAS hydraulic model

A ceremony to mark the completion of the 2<sup>nd</sup> phase of the U.S. Government support to ISRBC and the member countries has been organized jointly with the U.S. Embassy in Zagreb and hosted by the U.S. Ambassador to Croatia. The ceremony was attended by high officials of the Sava countries, representatives of the participating U.S. institutions, as well as by the U.S. ambassadors or their representatives to Bosnia and Herzegovina, Serbia and Slovenia.



Figure 5. Ceremony on the occasion of the completion of the 2<sup>nd</sup> phase of the U.S. support

Both models are incorporated in Sava FFWS. In the reporting period, a further upgrade of the hydrological model began. This is especially important because the activity is carried out entirely by national experts, with the coordination of the Secretariat of the Sava Commission. The completion of this activity is foreseen by the end of 2019, and a further upgrade of the hydraulic model is also planned similarly.

### 2.3. Accident prevention and control

Among the three principal goals of FASRB, the accident prevention and control covers the prevention and limitation of hazards and reduction or elimination of adverse consequences of accidents (Article 2c and Article 13).

The Parties to the FASRB use the Accident Emergency Warning System (AEWS), developed and maintained by ICPDR. The objectives of AEWS are receiving, processing and transmission of information of pollution and prompt dealing with and communication of information on emergencies. AEWS has been tested regularly twice a year. The tests confirmed that all Principal International Alert Centers (PIACs) in the Parties were able to perform the major tasks, although PIACs in Bosnia and Herzegovina and Serbia are still not part of the national systems which operate 24/7.

In the reporting period an accident was detected, when the toxic substances leaked on 28 April 2018 into the Spreča River near Lukavac (B&H). Good cooperation has been established between related PIACs from Bosnia and Herzegovina and Croatia. No transboundary impact was recorded.

For the purpose of implementation of the two protocols in force: Protocol on prevention of Pollution Caused by Navigation and Protocol on Flood Protection as well as the draft Protocol on Emergency Situations, the improved operational response in emergency situations, including closer interaction and cooperation between river basin management authorities and civil protection sector, have been identified as a necessity. For that purpose, the project proposal entitled *Water Contingency Management in the Sava River Basin-WACOM* was prepared and submitted to the 3rd call of the Danube Transnational Programme (DTP) in March 2019. The second cross-sectoral project proposal prepared for the same DTP call was *Inter-sectoral approach with hydropower and navigation sectors for operative flood prevention measures in Sava River Basin-INAS*, with the main objective to develop inter-sectoral approach for hydropower and navigation sectors with impacts to flood prevention and sediment management in the Sava River Basin. The decision about financial support is expected until the end of 2019. Details on these and other projects of interest are available in Annex IV of this Report.

### 3. Navigation

The efforts in the field of navigation in the reporting period were focused on the continuation of activities towards rehabilitation and development of navigation and transport on the Sava River waterway. At the same time, the work on standards related to navigation safety and other technical standards has continued, in line with the latest EU legal acts, with special attention to the work of CESNI in the field of professional qualifications of navigation personnel.

#### 3.1. Rehabilitation and development of the Sava River waterway

In view of the newly-agreed approach to the rehabilitation and development of navigation on the Sava River waterway, which implies that it should begin with the rehabilitation of the most critical sectors of the waterway, the Parties and ISRBC have undertaken a number of activities during the reporting period.

In Serbia dredging works on the Kamičak sector (rkm 82 – rkm 88) were completed in 2018, while the same works on the Šabac sector (rkm 90 – rkm 104) were finished in 2019. According to the control survey performed one year after the completion of the works on the Kamičak sector, it was concluded that the works have had a positive effect and that there was no change in the fairway dimensions in cross sections over one year period. On the whole sector, the lowest depth over the full fairway width of 75 m is 2.5 m at the low navigable level. The lowest depth over the full fairway width on the Šabac sector is 3 m at the low navigable level.

Serbia also secured financing for the development of the project documentation for the fairway rehabilitation on the Drina Confluence sector and the start of the activities is planned for 2019.

The project titled *Development of Environmental Impact Assessment Study and Design for the Action: Improvement of the Navigability Conditions of the Sava River from rkm 300 to rkm 329* (project Jaruge-Novi Grad) officially started in December 2018. The contracting authority is the Croatian Ministry of the Sea, Transport and Infrastructure. Close cooperation has been established with the Ministry of Communications and Transport of B&H since it is a common sector of the Sava River waterway.

In the meantime, ISRBC adopted Decision 2/19 by which the Committee for Monitoring and Coordination of Implementation of the Project Rehabilitation and Development of Transport and Navigation on the Sava River Waterway (Committee) may perform the function of a stakeholders' forum for specific parts of the project if appropriate, with the aim of stimulating the implementation of the principles of the Joint Statement on Guiding Principles on the Development of Inland Navigation and Environmental Protection in the Danube River Basin (Joint Statement) regarding the optimal involvement of the key stakeholders. Subsequently, ISRBC established the Stakeholders Forum for the project Jaruge-Novi Grad. The members of the forum are members of the Committee and representatives from the non-governmental, civil society and professional organizations and regional and local administration from the territory of the project execution from Croatia and Bosnia and Herzegovina identified on the basis of the publicly announced Call for expression of interest for the membership in the forum. The first meeting of the forum was held in May 2019, when the variant solutions for the fairway were presented and discussed. A general opinion is that this is an improvement in the practice of carrying out projects in the field of inland navigation and that similar practices should be implemented in all future projects.

In B&H, beside full cooperation in implementation of the project Jaruge – Novi Grad, preliminary talks were held with representatives of the International Financial Institutions (IFI)



and the EU on financing the demining of the right bank of the Sava River, as the highest priority and precondition for the reconstruction of the waterway. Information on this and other priority navigation-related projects was provided to the representatives of IFIs, and their feedback is expected.

ISRBC organized the meeting with the competent authorities from B&H and HR with the aim of further upgrade of the fairway marking system and harmonization of the methodology for fairway inspection (depth measurement, positioning of the floating signs...) at the B&H sector. After the meeting, joint survey of the marking system at the B&H sector was organized and further improvement of the system was agreed.

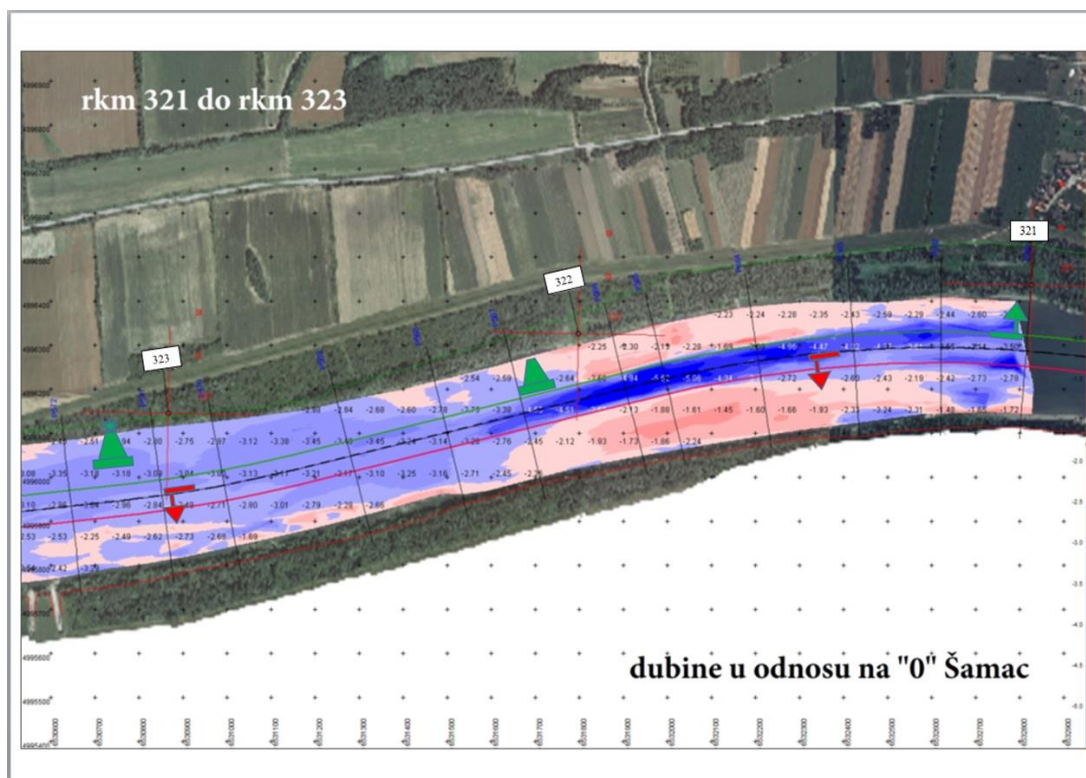


Figure 6. Proposal for the new positions of the floating signs at the sector Jaruge-Novi Grad

In order to facilitate the further implementation of the Joint Statement, ISRBC participated in the work of the Steering Committee for the Mixed Environment Transport External Expert Team on Integrated Planning of Inland Waterways Transport Projects (METEET) and in the organization of the second training mission, which was held in June 2018 in Serbia.

ISRBC also continued participation in the work of the Steering Committee for the Priority Area 1a of the EU Danube Strategy, with the aim to support development of navigation and promote the transport possibilities on the Sava River as a part of the European Core Transport Network.

### 3.2. Navigation safety and related technical standards

Improvement of the navigation safety through unification of rules and development of the navigation manuals is one of the important continuous activities of ISRBC.

ISRBC has continued its cooperation with UNECE, as well as with other river commissions on further harmonization of navigation rules. The harmonization expert group (CEVNI EG) held its first meeting in 2019 in the premises of Central Commission for the Navigation of the Rhine (CCNR) and it was a significant step forward in the full harmonization of the rules in Europe.

Discussion was especially important on the Automatic Identification Systems (AIS) implementation, prevention of water pollution caused by shipping, navigation lights and LNG bunkering. Discussion on autonomous shipping also started in the framework of the UNECE and regulatory framework for the autonomous shipping was marked as one of the significant issues for the future.

ISRBC has also continued its participation in the work of the European committee for drawing up standards in the field of inland navigation (CESNI) and its expert groups. CESNI objectives are to contribute to the adoption of uniform standards on the entire network of inland waterways in Europe with a view to increasing navigation safety and environment protection in the context of inland navigation transport, promoting employment in inland navigation and rendering the sector more attractive, while facilitating transport operations and promoting international trade. In November 2018 CESNI adopted standards for education for operational and management level, standards for medical fitness, standards for practical exams and standards for navigation simulators, while the work on standards for certificate models continued all with a significant contribution of ISRBC.

At the same time, ISRBC has continued its work on drafting the Rules for the Sava Navigation Personnel with the aim to modernize and present requirements for the crew qualifications and minimum manning for vessels in a single document. In this regard, participation of ISRBC in the work of the newly established CESNI expert group for standards for minimum manning requirements for the inland waterway vessels will be very important.

In the framework of the follow-up of implementation of the Decision 16/17 on the introduction of the System for support to national bodies responsible for the navigation safety inspection, ISRBC maintained regular contacts with the users of the system aiming to improve its functionalities and to support users. Since the official start of operation in February 2018 up to July 2019, 101 inspections were registered in the system. ISRBC started with some basic statistical analysis of the data in the system and first results show that the majority of detected violation is crew related.

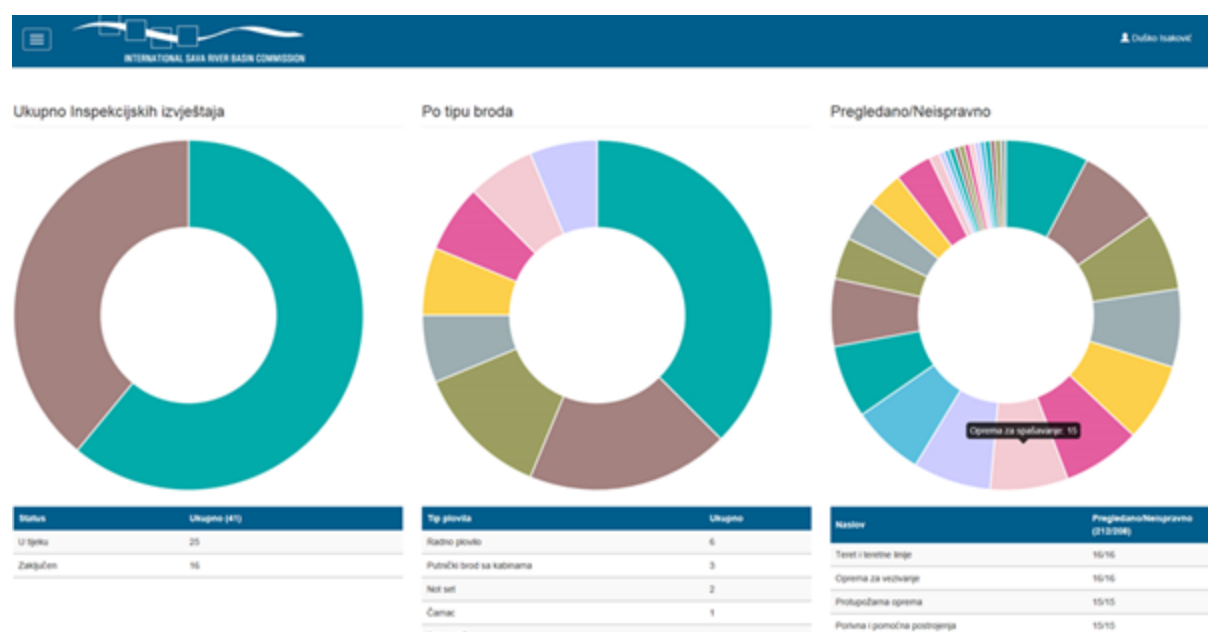


Figure 7. Web application for support to national bodies responsible for the navigation safety inspection-statistics

Taking into account the necessity to regulate some issues regarding the safety of the recreational navigation on the common sectors of the Kupa between Croatia and Slovenia, and following

the conclusions of ISRBC, the ISRBC Secretariat in co-operation with the competent ministries drafted a proposal for a Decision on the Rules on Navigation Regime on the Common Sectors on the Kupa River between the Republic of Croatia and the Republic of Slovenia and presented it at the meeting which was attended by representatives of local authorities from areas along the Kupa River, representatives of the competent ministries and the chambers of commerce from both countries. Based on the conclusions from the meeting ISRBC amended the proposal and send it to the ministries for transport in Croatia and Slovenia for preliminary approval which is still expected.

With the aim of improving and actualizing navigation manuals, ISRBC developed the new version of the Indicator of River Kilometers which includes data for the new sector from HR-SI border up to Krško and started with the development of the second updated version of the Manual on the Sava River Navigation (mooring terms, vertical clearance under bridges and navigation lights).

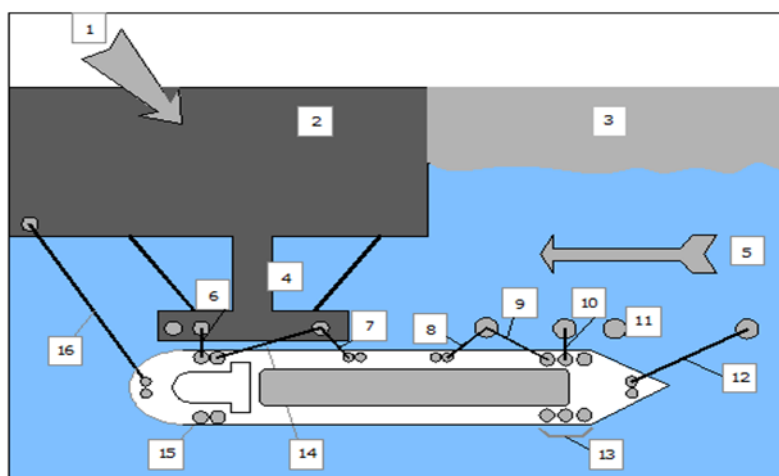


Figure 8. Terms for mooring ropes

Using the legal capacity given by FASRB, ISRBC adopted the following decisions related to navigation safety in the reporting period:

- Decision 11/18 on adoption of *Standard for Notices to Skippers for Inland Navigation in the Sava River Basin*
- Decision 12/18 on *Manual for the Radiotelephone Service in the Sava River Basin*
- Decision 13/18 on *Amendments to the Decision 15/14 on adoption of the Rules for Waterway marking in the Sava River Basin*
- Decision 1/19 on adoption of the *Plan for the waterway marking and maintenance on the Sava River and its navigable tributaries for 2019 (Marking Plan)*
- Decision 2 /19 on adoption of the amendments of the Decision 12/12 on adoption of the *Methodology of work of the Committee for monitoring and coordination of implementation of the project “Rehabilitation and development of transport and navigation on the Sava River waterway”*
- Decision 7/19 on the establishment of the *Stakeholders Forum for development of Environmental Impact Assessment Study and Design for the Action: Improvement of the navigation conditions on the Sava River from rkm 300 to rkm 329*

The above-mentioned Marking Plan was prepared on the basis of a harmonized methodology and blueprint for the marking and maintenance plan adopted by ISRBC and used for the first time in 2018. ISRBC also continued with maintenance of the functionality of web application for preparation of Marking Plan.

ISRBC adopted Recommendation 1/19 on use of harmonized border control forms for the vessels in the Sava River Basin with a view to simplification, harmonization and digitalization of administrative processes in inland navigation in the Sava River Basin.

In order to facilitate their implementation, the new rules are systematically presented to representatives of the competent authorities of the Parties. At the same time, in order to improve the content of the documents based on inputs of direct users, ISRBC follows the implementation of all decisions in the Parties.

The rules adopted by ISRBC are incorporated into legislation in HR and RS, while in B&H and SI they are directly applied in practice.



## 4. Data and information management

Major advances in data and information management were achieved in the reporting period. Within the development of Sava FRMP, the new Sava GIS FRM database (compliant with the Floods Directive Reporting Guidance 2018) has been designed and successfully implemented within the central Sava GIS database and the Sava GIS Geoportal. Further progress has been made in hydrometeorological data exchange through Sava Hydrologic Information System (Sava HIS) and special advances in information exchange have been achieved through the full functionality of Sava FFWS.

### 4.1. Geo-information issues

Sava Geoportal, along with the related Sava GIS database and the connected web-applications, has been fully operational since 2015. As mentioned above, the new Sava GIS FRM database has been successfully implemented within the Sava GIS central database. Also, all other data related to FRM were migrated and populated within the new database.

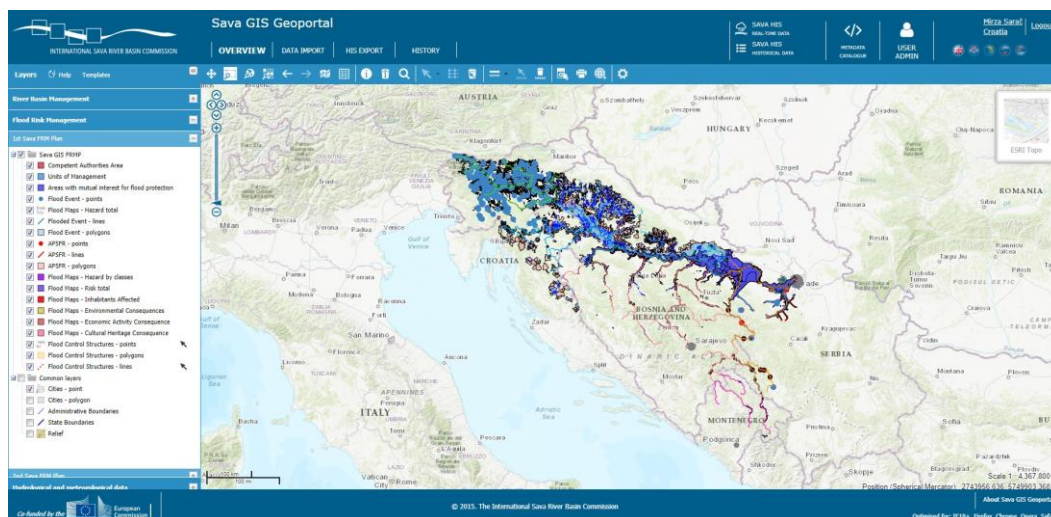


Figure 9. Sava GIS Geoportal ([www.savagis.org](http://www.savagis.org))

Data gathering cycle for the purpose of the 2<sup>nd</sup> Sava RBM Plan development is ongoing. Also, available metadata records (from Danube GIS) related to the existing datasets of the 2<sup>nd</sup> Sava River Basin Analysis were imported in the Sava GIS Metadata Catalogue.

ISRBC is one of the partners in the ongoing project titled *Sustainable Historic Environments holistic reconstruction through technological enhancement and community-based resilience - SHELTER*. SHELTER is approved by the EU Horizon 2020 Programme and, among other objectives, aims to collect data on cultural-historical heritage within the floodplains in the Sava River basin. Collected data will be consolidated in a properly structured way and stored in the existing Sava GIS geodatabase for use in flood impact analyses within the following cycles of flood risk management planning.

Existing navigation management applications (Navigation Safety Inspection; Development of the Marking Plan for the Sava River and its navigable tributaries) were successfully integrated into the Sava GIS platform. The ultimate goal - incorporating the data related to navigation in SavaGIS Geoportal by establishing the navigation module, is still pending for financial support. Once the activity is implemented, all remaining information related to navigation, such as the indicator of river kilometers and the album of bridges, will be transferred to Geoportal.

Preparatory activities for the development of the sediment management and APC modules are ongoing. Further plans related to upgrade of Sava GIS include development of advanced tools for mapping and reporting services and decision support system (DSS). The implementation and timing of the planned activities strongly depend on securing financial resources, as external technical support is required to carry them out.

## 4.2. Hydrological and meteorological issues

Sava HIS, established for the purpose of implementation of the Policy on the Exchange of Hydrological and Meteorological Data and Information in the Sava River Basin (2014), represents a tool for collecting, storing, analyzing and reporting of hydrological and meteorological time series data on: precipitation, air temperature, snow depth, water level, discharge, water temperature, turbidity, as well as several statistical parameters. Those data and information are in use for decision-making system in all aspects of water resources management, in the wide range of operational applications as well as in research.

In the data exchange process 9 national institutions from the five Sava River basin countries are involved, i.e. 7 institutions with the role of data provider and receiver as well as additional 2 institutions as data receivers. The system is currently collecting observed data from 306 hydrological and 195 meteorological gauges. The number of stations continuously increase within Sava HIS since its establishment as a result of countries' growing commitment after recognizing efficiency of the system and own benefits..

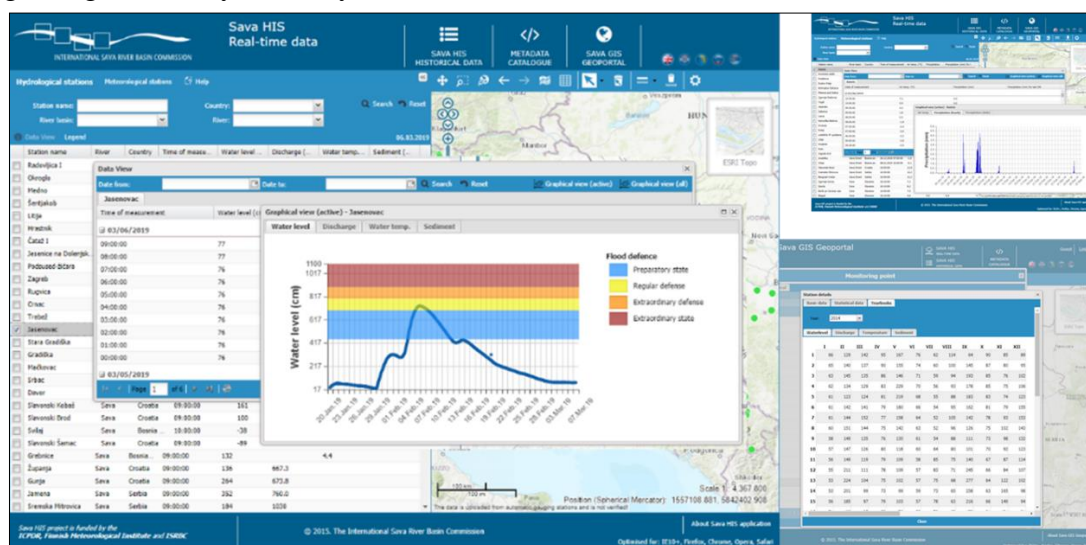


Figure 10. Sava HIS - real time and processed data ([www.savahis.org](http://www.savahis.org))

Since the WaterML 2.0 format (WMO's standard) is implemented in Sava HIS, the system enables storage of countries' observations in a standard format and supports data sharing and publication via web services for further use e.g. within operational Sava FFWS. Sava FFWS integrates Sava HIS, as a data hub for the collection of observed real-time hydrological and meteorological data, along with various numerical weather prediction models, available weather radar and satellite imagery, outputs of the existing national forecasting systems, different meteorological, hydrological and hydraulic models which are all 'plugged' into a common platform.

Sava HIS and Sava FFWS enable the five countries to take the right management decisions and implement operational measures to prevent and mitigate severe flood and drought situations on



the basis of reliable observed data and forecasts. This regional and basin wide concept bridges differences between cooperating countries and support collaboration in the field of data exchange and forecasting keeping the countries' own autonomy in monitoring, modelling and forecasting. Both systems, Sava HIS and Sava FFWS are assessed as added value to existing or developing systems, expecting that a common forecasting platform with well trained staff should provide better preparedness and optimized mitigation measures to significantly help reduce consequences of floods and droughts.

## **5. Cross - cutting and development issues**

### **5.1. Climate change adaptation**

Taking into account that the ISRBC is the signatory of Paris Pact on Water and Adaptation to Climate Change in the Basins of Rivers, Lakes and Aquifers and after the successful finalization of the *Outline of the Climate Change Adaptation Strategy and priority measures for the Sava River Basin*, efforts are being made to find financial support for development of the full-fledged strategy. The Outline and its findings have been presented on many occasions during the reporting period.

Climate change impacts were also addressed in the Sava FRMP, as noted earlier in the report.

### **5.2. Nexus assessments in the Sava River Basin**

Following the assessment of the water-food-energy-ecosystems nexus in the Sava River basin in 2016 and the similar assessment of the Drina River Basin in 2017, the Drina Nexus follow up project funded by Italy and implemented by the UNECE Water Convention Secretariat has started. After the project preparation phase held in 2018 the activities will be focused to (1) improving bilateral monitoring and information exchange procedures, (2) assessing the status of erosion and sedimentation and anthropogenic impacts in the Drina basin and proposing priority measures to limit erosion, (3) reviewing relevant international experience and legal options for formalizing flow regulation for different needs and (4) organizing multi-stakeholder dialogues about sustainable renewable energy investment.

As part of the Drina follow-up project, an expert group meeting on flow regulation and environmental flows was held in June 2019 in Zagreb, hosted by ISRBC. The meeting focused on flow regulation, taking stock of current needs, discussing trade-offs, and exploring practices from other basins. The continuation of this cooperation is envisaged during the whole course of the project in 2019 and 2020.

### **5.3. Sustainable river tourism**

ISRBC has continued the efforts to gain the financial support for development of the sustainable river tourism. The project proposal *Danube EcoTOURism* has been prepared with several partners led by the European Wilderness Society. The main objective of the project is to strengthen interregional cooperation to pursue joint and integrated approaches for the preservation and management of natural and cultural heritages and resources in the Danube region, by using sustainable ecotourism as a tool to achieve sustainable economic development and growth.

ISRBC is also the associated partner in the project *Balkan Bike: Sava cycling trail in the heart of the Balkans* led by Regional Development Agency Posavje (SI) with the main objectives to design long distance cycling route along the Sava River and to promote cycling as a sustainable mobility mode.

Both project proposals were submitted to the 3<sup>rd</sup> call of the DTP, and the decision on financial support is expected by the end of 2019.

#### 5.4. Joint Plan of Actions for the Sava River Basin – follow up

Joint Plan of Actions for the Sava River Basin (JPA SRB) was developed in spring 2017 and supported by the member states of ISRBC and Montenegro by the Joint Statement of the representatives of the Parties to the FASRB and Montenegro on Plan of Action and Milestones for the Sava River Basin as a Catalyst for Cooperation in the region<sup>2</sup>, adopted in Bled (SI) on June 15, 2017. JPA SRB outlines the path towards further development of the region. It contributes to the efforts of the Parties and Montenegro to ensure sustainable economic development and growth of the basin with aim to serve as a catalyst for enhancement of the cooperation in the region.

The WB, which supported the drafting of JPA SRB, in a certain way continued this effort by preparation of the Sava-Drina River Corridor Integrated Development Program. The long-term objective of the program is to foster regional cooperation and unlock productive investments. The Program specifically aims to support integrated management of the Sava and Drina corridors to (i) improve the protection of from floods, (ii) enhance the navigability of the Sava river with priorities given to the most critical sectors of the waterway, (iii) improve flood forecasting and management capacities among riparian countries, and enhance management and operations of Drina dams for hydropower production as well as flood and drought management, and (iv) enhance nature values and tourism. ISRBC has actively participated in the preparation of the Program, by providing necessary information and through meetings and dialogue with the WB representatives.

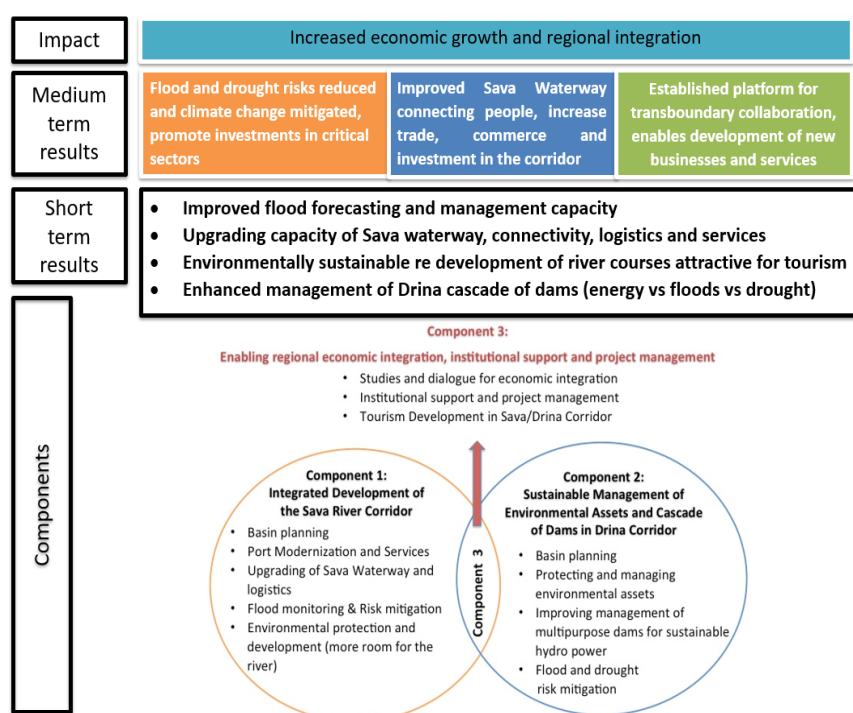


Figure 11. Overview of the Sava - Drina Corridor Program's result chain<sup>3</sup>

Intensive consultations on funding methods, the structures necessary for the implementation of program activities and the role of ISRBC are in progress.

<sup>2</sup> Joint Statement and JPA SRB is available here: <https://www.savacommission.org/publication>

<sup>3</sup> Source: Conceptual Outline of Sava - Drina River Corridor Integrated Development Program (WB: Oct. 2018)

## 6. Legal and financial issues

### 6.1. Legal issues

FASRB establishes good grounds of cooperation in the region regard to waters in a very ambitious and comprehensive manner. Cooperation promoted under the FASRB involves different sectors of administrations of the Parties, their relevant local authorities, stakeholders and NGOs. This improves collaboration, awareness, knowledge and capacity at cross-sectoral and multi-layered levels in each Party and in the regional context.

Besides these political and international legal elements constituting a framework in which the sustainable water management in the Sava River Basin should be developed, the implementation of FASRB also depends on institutional mechanisms within the states and their readiness to accept and implement in practice decisions, conclusions and recommendations of ISRBC.

According to the submitted Seventh Country Reports, the Parties generally perceive no serious legislation obstacles to implementation of FASRB, however a lack of appropriate policies and laws, financial resources as well as a weak law enforcement capacity were still noted in some cases, as in the previous Country Reports.

In the past years, significant efforts were invested by ISRBC to develop a proposal of certain amendments of FASRB with aim to ensure additional efficiency in its implementation, by amending the procedure for adoption of the Sava RBM and FRM plans. The proposal was officially delivered to the Parties for consideration. ISRBC is still waiting for information on readiness of all Parties to conduct the final harmonization process.

FASRB, from the international law point of view, represents a *pactum de contrahendo* - the agreement on liability to conclude additional protocols on certain specific issues of interest. The current status regarding the protocols to FASRB is provided in the following table.

*Table 2. Overview of the status of the protocols to FASRB*

Protocol on	Signed	In force since
Navigation Regime	Kranjska Gora, December 3, 2002	December 29, 2004
Prevention of Water Pollution caused by Navigation	Beograd, June 1, 2009	October 8, 2017
Flood Protection	Gradiška, June 1, 2010	November 27, 2015
Sediment Management	Brčko, July 6, 2015	October 8, 2017
Emergency Situations	Final harmonization is expected in 2019	
Transboundary Impact	Need for development of the protocol under reconsideration	

Besides the four above-mentioned protocols in force, the table provides information on the two protocols that need to be further discussed, either by means of the final harmonization or by reaching the consent about necessity/additional benefits of its development.

Protocol on Emergency Situations to FASRB comprises several goals aimed at the identification of hazardous activities, their character and possible consequences, prevention, emergency planning and preparedness, adequate alarm and warning system compatible with already existing systems on the wider basin level, assessment of extraordinary impacts,

emergency response and mutual assistance of the Parties. Draft Protocol on Emergency Situations was adopted by ISRBC and distributed to the Parties for final review. Final harmonization of the Protocol is expected in due course.

Protocol on Transboundary Impacts to FASRB was initially meant to regulate the issues concerning the measures for securing the integrity of the water regime in the Sava River Basin and elimination or reduction of transboundary impacts on waters of other parties caused by economic and/or other activities. However, in the meantime, Espoo Convention, on which the protocol mostly leans, was ratified by all the Parties and the expert consultations were organized to reconsider the actual benefit of the draft protocol. It was concluded that the Protocol in its present form is no longer indispensable as an added value to the already existing mechanisms. For further consideration of the issue, a task group has been established by ISRBC. A final decision on the need for development of this protocol is expected in the near future.

An overview of international agreements relevant for the Sava River Basin including a review of signatories and parties of the relevant multilateral treaties and a list of bilateral agreements, being of importance in the light of Article 29 paragraph 3 of FASRB, is given in Annex III.

## 6.2. Financial issues

This chapter outlines basic facts on inflows and outflows of the budgetary funds of ISRBC during the reporting period, which covers the financial year 2018 (FY) and the first quarter of FY 2019.

Most of the income into the General Fund of ISRBC comes from the regular annual contributions of the Parties. The annual contribution of each Party was 128,990.00 Euro. The rest comes from other sources: transfers from the Reserve Fund, grants for the implementation of projects and other specific activities, from interests, etc. Total inflow into the General Fund in the reporting period was 953,759.45 Euro.

Realization of the Budget of ISRBC in FY 2018 and in the first quarter of FY 2019, shown by the main budget items, is provided in the following table.

*Table 3. Realization of the Budget of ISRBC in FY 2018 and the first quarter of FY 2019*

Budget Chapter	Expenditures (Euro)	
	FY 2018	1st quarter of FY 2019
Staff salaries and allowances	429,501.70	106,843.81
Current costs	29,305.09	7,039.97
Travel expenses	14,330.80	2,008.63
Operational costs	14,071.90	0.00
Equipment	1,778.52	0.00
Total expenditures	488,988.01	115,892.41

In accordance with *Financial Rules of the Sava Commission*, the rest of the General Fund is allocated to the Reserve Fund. The transfers from the Reserve Fund into the General Fund or the Special and Trust Fund were used for covering unexpected expenditures, necessary for effective functioning of ISRBC, and expenditures not envisaged in the budget for the respective year.

The inflows into the Special and Trust Fund come from grant funds of different institutions/ organizations for implementation of special projects. In FY 2018 and in the first three months of FY 2019, the total income in the Special and Trust Fund was 39,989.67 Euro, while the total expenditures were 52,300.22 Euro.

The external audit of the financial management, including the accounting records of ISRBC for FY 2017, has been performed. The audit team submitted the Report on Audit to ISRBC members, stating that the statement of account, related notes and other disclosures are correct and in accordance with the ISRBC's rules and regulations and the general accounting principles.



## 7. Cooperation and stakeholder involvement

Cooperation of ISRBC with a large number of international organizations has been continued during the reporting period, with a special emphasis on the organizations and institutions specified in Article 5 of FASRB.

ISRBC has maintained good contacts and cooperation with various EU bodies. It has continued active involvement in the implementation of the EU *Strategy for the Danube Region (EUSDR)*, as well as in the process of drafting the new European legal framework in inland navigation. ISRBC also actively participated in several events and workshops organized by different EU bodies.

Cooperation with ICPDR and Danube Commission (DC) is formally based on the memoranda of understanding, signed with each of the two commissions, which provide opportunities for a close cooperation and coordination of activities of the commissions. In the reporting period, this coordination has been ensured by means of mutual participation at sessions, expert group meetings and other events. The process of implementation of Joint Statement, coordinated jointly by ICPDR, DC and ISRBC continued by organizing the 9<sup>th</sup> Joint Statement follow-up meeting, hosted by ICPDR in Vienna in September 2018. In addition, the two workshops: on climate change adaptation and a regional workshop on challenges and needs of the water and agriculture sectors have been co-organized with ICPDR in May 2018 and February 2019, respectively.

Cooperation is being maintained with other navigation commissions (e. g. CCNR and Mosel Commission), and other river and lake protection commissions (e.g. commissions for the protection of the rivers Rhine, Elbe, and Odra). Secretary of ISRBC participated in annual meeting of the heads of the European Water secretariats which took place in Wilhelmshaven (DE) in August 2018. These traditional events are a good opportunity to share experiences and to discuss all actual and emerging issues. In 2020, ISRBC will host the meeting.

A fruitful cooperation has been continued with International Network of Basin Organizations (INBO) as well as with UNESCO. Cooperation with UNECE has also been continued. In addition to a regular participation of ISRBC in the framework of the UNECE working groups and other events, the two organizations have cooperated in the Drina Nexus follow-up project, as described in Chapter 5.2.

There has also been a continued cooperation with regional organizations (UNDP, REC, GWP-Med, GWP-CEE, etc.), international financial institutions and cooperation agencies (WB), specialized organizations, associations and groups (WMO, GIS Forum), business sector (Coca-Cola) and NGOs (WWF, Euronatur, etc.).

In addition to the institutions responsible for the implementation of FASRB, cooperation has been kept with other organizations, such as water agencies, NHMSs, inland waterway agencies, port master offices, registers of shipping, regional chambers of commerce, tourism organizations, faculties and institutes dealing with natural and technical sciences, etc. Fruitful cooperation has been established with numerous other institutions which took part in preparation and implementation of various regional projects. Apart from the institutions of the Parties, good co-operation has been maintained with the relevant bodies of Montenegro.

Taking into account the significance of stakeholders' involvement within the framework of activities of ISRBC and implementation of FASRB, the cooperation with relevant institutions, NGOs and local actors from the basin has been continued throughout the reporting period. A good example of stakeholder involvement is the newly established Stakeholder Forum for the

navigation project “Jaruge-Novigrad”, where from the very beginning, apart from state bodies, representatives of the non-governmental sector, civil society, scientific institutions and local associations are involved.

Consultation activities were conducted through the organization of consultation workshops, public presentations and other stakeholder meetings (listed in Annex V), as well as through consultation on the ISRBC web site regarding various activities (e.g. the development of the first Sava FRMP).

The active involvement of stakeholders is ensured, above all, for institutions / organizations with observer status in ISRBC, through their participation in meetings of the Parties, meetings of ISRBC and meetings of the ISRBC expert groups.

Particular attention is paid to involving the young generation in processes in the basin, through the activities of the Youth Parliament of the Sava River Basin (Youth Parliament). The Youth Parliament held two meetings in the reporting period.

The 7th meeting of the Youth Parliament of the Sava River Basin (Youth Parliament) was held on the June 1 and 2, 2018 in Bohinj (SI). The participants have been selected on the basis of applications received covering the main topic Sustainable Tourism - Opportunity for the Development of the Sava River Basin. The main messages of the parliament were related to the connection of tourism with local identity and tourist products with nature and to increase quality of tourist offer with properly targeted information and education at all levels.

The 8th Sava Youth Parliament took place on May 31 and June 01, 2019 in the border region between Slovenia and Croatia (Kumrovec, Vunat, and Kozjansko Regional Park). The aim of the meeting was to enable discussion and recognize the ideas of young people from the Sava river basin on methods how to harmonize different interests of water users at specific area, and how young people would resolve potential conflicts between different stakeholders or groups at local, regional and transboundary level.

In parallel with the Sava Youth Parliament 2019, the 1st international conference of professors of geography was held in Podsreda (SI). The representatives of the Youth Parliament participated at the joint ceremony of setting the marks for high waters at the bridge on the Sotla/Sutla river between Slovenia and Croatia.

More information is available at the web site of the [Sava Commission](#) and the [web site](#) and [Facebook](#) of the Sava Youth Parliament.



*Figure 12. Youth Parliament 2018 (left) and 2019 (right)*

Increased interest in the work of ISRBC has been expressed from many regions from all over the world. In the reporting period ISRBC hosted and presented its work and shared its

experiences to: North West Sahara Aquifer System Consultation Mechanism (Algeria, Libya and Tunisia), the representatives of water administration of Poland (Study visit Odra -Vistula Flood Protection Project), the representatives of water administration and key stakeholders from Azerbaijan and Georgia (Study tour for the Kura II project Key Stakeholders) and the Central Asian delegation (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan).

## 8. Summary of achievements and recommendations for the future work

Generally, FASRB is proven to be a good platform to achieve the key objectives of transboundary cooperation in the Sava River Basin: establishment of an international regime of navigation and of sustainable water management, as well as to undertaking of measures to prevent or limit hazards, and reduce and eliminate their adverse consequences. FASRB also provides opportunities for exchange of information as well as the experiences through the work in ISRBC, as the joint body of the participating countries. In addition to the representatives of the competent national bodies, a large number of stakeholders from various institutions participate in the work of ISRBC: non-governmental sector, scientific and research institutions, civil society, professional associations and youth representatives, which all contribute to the achieving the significant results. The implementation of the FASRB also has fostered and improved cooperation between different sectors at national level. Summary of accomplishments in the reporting period are provided in the following text.

In the field of *integrated water management* major accomplishments in the FASRB implementation include the development of the first joint Sava FRMP and the establishment of the Sava FFWS and putting it into operational use, as well as the related and successfully implemented procedure of the adoption of the Sava FRMP as the official proposal of ISRBC and preparation of Memorandum of Understanding on the functioning of the Sava FFWS after its establishment.

Other achievements which need to be highlighted include further advances in the activities related to the 2<sup>nd</sup> Sava RBM planning cycle, the development of the state-of-the art hydraulic model for the Sava River and its main tributaries including its integration into Sava FFWS, improvement of the procedures related to AEWS by training, testing and capacity building of the responsible structures in the Parties (PIACs) as well as progress in implementation of the Protocol on Sediment Management, in particular related to the exchange of data and information on dredging.

In *navigation* the main achievements in the reporting period include intensification of the activities on the rehabilitation and the development of the Sava River waterway, namely the completion of the works on some of the critical sectors in Serbia (Kamičak and Šabac). This period was also marked by the beginning of the preparation of project documentation for the critical section of the Sava River waterway Jaruge - Novi Grad, as well as by the manner of involving stakeholders in the whole process, through the newly formed Stakeholder Forum. Such a process, as an example of good practice, is also planned in future activities.

Since the improvement of the navigation safety through unification of rules and development of the navigation manuals is one of the important continuous activities of ISRBC, further development and upgrade of the set of rules, in close cooperation with the EU, UNECE and other river commissions, has been done. Particular emphasis has been given on the work in the framework of CESNI. Some of the recent products include the new version of the Indicator of River Kilometers with data for the new sector from HR-SI border up to Krško as well as the further upgrade of the Manual on the Sava River Navigation. Due attention has also been paid to the development of navigation applications and their integration into the Sava GIS.

In *data and information exchange* further upgrade of the Sava GIS by incorporating the module for FRM (fully in line with the Flood Directive reporting guidance) and a successful integration of the existing navigation management applications (Navigation Safety Inspection; Development of the Marking Plan for the Sava River and its navigable tributaries) into the Sava GIS geodatabase, can be highlighted. With regard to the exchange of hydro-meteorological data, great progress has been made through Sava HIS, by increasing the number of hydrological and meteorological stations from which data are obtained, and by successfully incorporating

Sava HIS into the Sava FFWS platform as the backbone of the system for real time data exchange.

Due attention was paid to the *cross-cutting and development issues*. ISRBC continued the follow-up activities of (i) Joint Statement on regional cooperation on development of sustainable tourism in the Sava River Basin (2017) through the work of the task group for sustainable tourism development, (ii) Joint Plan of Actions for the Sava River Basin (2017) by close cooperation with the WB in preparation of the Sava-Drina River Corridor Integrated Development Program as well as (iii) nexuses for Sava and Drina in close cooperation with UNECE.

Analyzing the Country reports, it can be concluded that still the main difficulties in implementing the FASRB are, in order of importance: (i) lack of human capacity, (ii) financial resources (iii) different status of the Parties in relation to obligations to the EU.

Keeping in mind the present status of the *FASRB* implementation, as well as the specific expectations expressed by the Parties in the *Country Reports*, the future activities should be oriented to:

- making best efforts to implement the Summary of Measures that is an integral part of the Sava FRMP, in order to contribute to meeting the agreed common objectives in flood risk management;
- ensure adequate resources for continuation of the activities in the next cycle of the flood risk management planning, starting with the update of the joint Preliminary Flood Risk Assessment in the Sava River Basin;
- securing sustainable functioning of the Sava FFWS and its further development, including further improvement of the common hydrologic and hydraulic models included in the system;
- preparation of the 2<sup>nd</sup> Sava RBMP, while continuing the dialogue with relevant stakeholders from the navigation, hydropower, agriculture, nature conservation and other relevant sectors, for further integration of the economic, social and environmental aspects into the river basin management planning;
- strengthening the efforts to rehabilitate and develop navigation on the Sava River and its navigable tributaries in order to contribute to the further economic and social development of the region, with a special emphasis given to solving the most urgent problem - complete demining of the Sava River banks;
- secure the proper functioning and maintenance of the Sava GIS and Sava HIS and their further upgrades, taking into account their importance for data and information exchange among the cooperating countries as well as for a proper planning in the basin;
- continue efforts related to sustainable development issues;
- further strengthening of the stakeholder involvement in all processes in the basin, having in mind examples of good practices such as the newly established Stakeholder forum for navigation as well as the inclusion of young generation through Youth Parliament.

## **ANNEXES**



**ANNEX I. List of institutions responsible for implementation of FASRB**

No.	Institution	Contact details
<b>Bosnia and Herzegovina</b>		
1	Ministry of Communications and Transport of Bosnia and Herzegovina	Trg Bosne i Hercegovine 1, 71000 Sarajevo Tel: +387 33 219 923
2	Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina	Musala 9, 71000 Sarajevo Tel: +387 33 219 923
3	Ministry of Agriculture, Forestry and Water Management of the Republic of Srpska	Trg Republike Srpske 1, 78000 Banjaluka Tel: + 387 51 338 415
4	Federal Ministry of Agriculture, Water Management and Forestry	Marka Marulića 2, 71000 Sarajevo Tel: +387 33 726 551
5	Ministry of Transport and Communications of the Republic of Srpska	Trg Republike Srpske 1, 78000 Banjaluka Tel: +387 51 339 404
6	Federal Ministry of Transport and Communications	Braće Fejića bb, 88000 Mostar Tel: +387 36 550 025
7	Ministry of Spatial Planning, Civil Engineering and Ecology of the Republic of Srpska	Trg Republike Srpske 1, 78000 Banjaluka Tel: +387 51 339 487
8	Federal Ministry of Environment and Tourism	Marka Marulića 2, 71000 Sarajevo Tel: +387 33 726 700
9	Government of the Brčko District	Bulevar mira 1, 76100 Brčko Tel: +387 49 240-600
<b>Republic of Croatia</b>		
1	Ministry of the Sea, Transport and Infrastructure of the Republic of Croatia	Prisavlje 14, 10000 Zagreb Tel: +385 1 6169 111
2	Ministry of Environment and Energy of the Republic of Croatia	Radnička cesta 80, 10000 Zagreb Tel: +385 1 3717 111
<b>Republic of Serbia</b>		
1	Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia	Bulevar umetnosti 2a 11070 Novi Beograd Tel: +381 11 2013 360
2	Ministry of Construction, Transport and Infrastructure of the Republic of Serbia	Nemanjina 22-26, 11000 Beograd Tel: +381 11 3619 833
3	Ministry of Foreign Affairs of the Republic of Serbia	Kneza Miloša 24-26, 11000 Beograd Tel: +381 11 3616 333
4	Ministry of Environmental Protection of the Republic of Serbia	Omladinskih brigada 1, 11070 Novi Beograd Tel: +381 11 3110 271

No.	Institution	Contact details
5	Republic Hydro-meteorological Service of Serbia	Kneza Višeslava 66, 11000 Beograd Tel: +381 11 3050 864
6	Republic Geodetic Authority	Bulevar vojvode Mišića 39, 11000 Beograd Tel: +381 11 265 22 22
<b>Republic of Slovenia</b>		
1	Ministry for Environment and Spatial Planning of the Republic of Slovenia	Dunajska cesta 47, 1000 Ljubljana Tel: +386 1 478 70 00
2	Ministry of Foreign Affairs of the Republic of Slovenia	Prešernova cesta 25, 1000 Ljubljana Tel: +386 1 478 2000
3	Ministry of Economic Development and Technology of the Republic of Slovenia	Kotnikova 5, 1000 Ljubljana Tel: +386 1 400 33 11
4	Ministry of Infrastructure of the Republic of Slovenia	Langusova ulica 4, 1535 Ljubljana Tel: +386 1 478 80 00

**ANNEX II. List of the ISRBC members and deputy members**

Name and surname	Function	Institution
<b>Bosnia and Herzegovina</b>		
Igor Pejić	Member to ISRBC - Chairman of the ISRBC	Ministry of Communications and Transport of Bosnia and Herzegovina
Boško Kenjić	Deputy Member to ISRBC	Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina
<b>Republic of Croatia</b>		
Maja Markovčić Kostelac	Member to ISRBC <i>until February 14, 2019</i>	Ministry of the Sea, Transport and Infrastructure of the Republic of Croatia
Duška Kunštek	Member to ISRBC <i>as of February 14, 2019</i>	Ministry of the Sea, Transport and Infrastructure of the Republic of Croatia
Elizabeta Kos	Deputy Member to ISRBC	Ministry of Environment and Energy of the Republic of Croatia
<b>Republic of Serbia</b>		
Nataša Milić	Member to ISRBC	Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia, Republic Water Directorate
Veljko Kovačević	Deputy Member to ISRBC	Ministry of Construction, Transport and Infrastructure of the Republic of Serbia
<b>Republic of Slovenia</b>		
Mitja Bricelj	Member to ISRBC	Ministry for Environment and Spatial Planning of the Republic of Slovenia
Marko Sotlar	Deputy Member to ISRBC	Ministry of Foreign Affairs of the Republic of Slovenia

**ANNEX III. International agreements relevant for the Sava River Basin**

FASRB and its Protocols										
No	Treaty	In force since	Available							
1	Framework Agreement on the Sava River Basin (Kranjska Gora, 2002)	Dec. 29, 2004	<a href="http://www.savacommission.org/dms/docs/dokumenti/documents_publications/basisc_documents/fasrb.pdf">http://www.savacommission.org/dms/docs/dokumenti/documents_publications/basisc_documents/fasrb.pdf</a>							
2	Protocol on the Navigation Regime to the Framework Agreement on the Sava River Basin (Kranjska Gora, 2002)	Dec. 29, 2004	<a href="http://www.savacommission.org/dms/docs/dokumenti/documents_publications/basisc_documents/protocol_on_navigation_regime.pdf">http://www.savacommission.org/dms/docs/dokumenti/documents_publications/basisc_documents/protocol_on_navigation_regime.pdf</a>							
3	Protocol on Prevention of the Water Pollution caused by Navigation to the Framework Agreement on the Sava River Basin (Beograd, 2009)	Oct. 08, 2017	<a href="http://www.savacommission.org/dms/docs/dokumenti/sastanci_strana/2_sastanak_strana_fasrb/protocol_on_prevention_of_water_pollution_caused_by_navigation_signed.pdf">http://www.savacommission.org/dms/docs/dokumenti/sastanci_strana/2_sastanak_strana_fasrb/protocol_on_prevention_of_water_pollution_caused_by_navigation_signed.pdf</a>							
4	Protocol on Flood Protection to the Framework Agreement on the Sava River Basin (Gradiška, 2010)	Nov. 27, 2015	<a href="http://www.savacommission.org/dms/docs/dokumenti/documents_publications/basisc_documents/protocols/protocol_on_flood_protection_to_the_fasrb.pdf">http://www.savacommission.org/dms/docs/dokumenti/documents_publications/basisc_documents/protocols/protocol_on_flood_protection_to_the_fasrb.pdf</a>							
5	Protocol on Sediment Management to the Framework Agreement on the Sava River Basin (Brčko, 2015)	Oct. 08, 2017	<a href="http://www.savacommission.org/dms/docs/dokumenti/documents_publications/basisc_documents/protocols/protocol_on_sediment_management.pdf">http://www.savacommission.org/dms/docs/dokumenti/documents_publications/basisc_documents/protocols/protocol_on_sediment_management.pdf</a>							
Multilateral agreements – review of Signatories & Parties of the multilateral treaties relevant for the Sava River Basin										
No	Treaty	In force	Slovenia		Croatia		B&H		Serbia	
			S	R	S	R	S	R	S	R
1	Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention, 1971)	•		•		•		•		•
2	Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention, 1991)	•		•		•		•		•
3	Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (SEA Protocol - Kiev, 2003)	•		•		•		•		•
4	Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UN/ECE Water Convention - Helsinki, 1992)	•		•		•		•		•
5	Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (London, 1999)	•	•			•		•		•
6	Convention on the Transboundary Effects of Industrial Accidents (Helsinki Convention, 1992)	•		•		•		•		•
7	Protocol on Civil Liability and compensation for damage caused by the transboundary effects of industrial accidents on transboundary waters (Kiev, 2003, in the	—						•		

	framework of the <i>UN/ECE Water Conv. &amp; Helsinki Conv. – Ind. Acc.</i> )								
8	<i>Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention, 1998)</i>	•		•		•		•	•
9	<i>Protocol on Pollutant Release and Transfer Register (Kiev, 2003)</i>	•		•		•	•		•
10	<i>Danube River Protection Convention (Sofia, 1994)</i>	•		•		•		•	•
11	<i>The Convention on the Danube Navigation Regime (Belgrade Convention – 1948)</i>	•				•			•
12	<i>Budapest Convention on the Contract for the Carriage of Goods by Inland Waterway (CMNI, 2001)</i>	•				•			•
13	<i>European Agreement on Main Inland Waterways of International Importance (AGN, 1996)</i>	•				•		•	•
14	<i>European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN, 2000)</i>	•				•			•
Notes: S – signed; R – ratified.									

**Bilateral agreements of importance for the Sava River Basin in the light of Article 29 paragraph 3 of FASRB**

**Bilateral agreements between the Republic of Croatia and the Republic of Slovenia**

Title	Signed	Provisional enforcement	Entered into force
<i>Agreement between the Government of the Republic of Croatia and the Republic of Slovenia on water management relations</i>	Oct. 25, 1996		Mar. 19, 1998
<i>Rulebook of the Permanent Croatian – Slovenian Commission for water management</i>	Oct. 25, 1996		Mar. 19, 1998
<i>Agreement between the Government of the Republic of Slovenia and the Government of the Republic of Croatia on cooperation on protection against natural and civil disasters</i>	Sept. 22, 1997		Nov. 1, 1999

**Bilateral agreements between Bosnia and Herzegovina and the Republic of Croatia**

Title	Signed	Provisional enforcement	Entered into force
<i>Agreement between the Council of Ministers of the Bosnia and Herzegovina and the Government of the Republic of Croatia on water management relations</i>	July 11, 1996		Jan. 31, 1997
<i>Protocol on establishment of navigation on the Sava River waterway and its tributaries between Bosnia and Herzegovina and Republic of Croatia</i>	Oct. 16, 1998		Nov. 15, 1998
<i>Agreement between the Council of Ministers of the Bosnia and Herzegovina and the Government of the Republic of Croatia on cooperation on protection against natural and civil disasters</i>	June 1, 2001	June 1, 2001	
<i>Agreement between the Council of Ministers of the Bosnia and Herzegovina and the Government of the Republic of Croatia on navigation on the navigable waterways and its marking and maintenance</i>	Feb. 20, 2004		Nov. 6, 2009



<i>Agreement between the Government of the Republic of Croatia and Council of Ministers of Bosnia and Herzegovina on the financing and development of the Detailed Design and conducting administrative procedures for environmental impact assessment and obtaining location permits, approval and construction permits for the project "Rehabilitation and modernization of the Sava River waterway from Račinovci to Sisak"</i>	Dec. 1, 2010	Dec. 1, 2010	
<i>Agreement between the Council of Ministers of Bosnia and Herzegovina and the Government of the Republic of Croatia and the on rules and regulations of using water from public water supply systems cut by the state border</i>	July 6, 2015		Feb. 9, 2016
<b>Bilateral agreement between the Republic of Croatia and the Republic of Serbia</b>			
Title	Signed	Provisional enforcement	Entered into force
<i>Agreement between the Government of the Republic of Croatia and the Government of the Republic of Serbia on navigation on the inland waterways and its maintenance</i>	Oct. 13, 2009		July 30, 2010
<b>Bilateral agreement between Bosnia and Herzegovina and the Republic of Serbia</b>			
Title	Signed	Provisional enforcement	Entered into force
<i>Agreement between the Government of the Republic of Serbia and Council of Ministers of Bosnia and Herzegovina on navigation on the inland waterways and its technical maintenance</i>	May 4, 2012		Feb. 22, 2013
<b>Bilateral agreement between the Republic of Croatia and Montenegro</b>			
Title	Signed	Provisional enforcement	Entered into force
<i>Agreement between the Government of the Republic of Croatia and the Government of the Republic of Montenegro on water management relations</i>	Sep. 4, 2007		Apr. 12, 2008
<b>Bilateral agreement between the Republic of Serbia and Montenegro</b>			
Title	Signed	Provisional enforcement	Entered into force
<i>Agreement between the Government of the Republic of Serbia and the Government of Montenegro on cooperation on protection against natural and civil disasters</i>	Oct. 4, 2010		

## ANNEX IV. List of the FASRB-related projects

List of the FASRB-related projects implemented or ongoing in the reporting period							
No	Project title		Status	Remark on the status / Implementation period	Lead partner(s) / Consultant	Budget (k€)	Funding source
1	Towards practical guidance for sustainable sediment management using the Sava River Basin as a showcase		Ongoing	Started in April 2012; Step 1: SSM course-Part 1- finished Step 2: guidance application- under implementation; Step 3: SSM course-Part 2- fund-raising in progress Step 4: continuation of guidance application- not started yet Step 5: Final workshop- planned after finalization of previous steps	UNESCO, ISRBC	225.0	UNESCO, Sed-Net
2	Assessing the water-food-energy-ecosystems nexus and benefits of transboundary water cooperation in the Drina River Basin - follow up		Ongoing	2019-2020	UNECE	N/A	Italian Gov.
3	2 <sup>nd</sup> phase of the U.S. Government support to flood modelling activities in the Sava River Basin (including Sava LiDAR project & purchase of IT equipment)		Implemented	Started in Dec 2014; Hydrological model, Hydraulic model, LiDAR data, IT equipment delivered to the Parties	USACE, ISRBC	N/A	U.S. Gov.
4	Improvement of joint flood management actions in the Sava River Basin	Preparation of the Flood Risk Management Plan for the Sava River Basin - Sava FRMP	Implemented	Started in March 2017; Final draft of the Sava FRMP prepared, adopted as the official proposal of ISRBC and delivered to the Parties and Montenegro for approval; the Sava GIS FRMP database implemented along with the technical and user documentation; Printing and dissemination after approval of Sava FRMP by the Parties and Montenegro	EPTISA Servicios de Ingenieria S.L, ES	Est. 2,000.0	Western Balkans Investment Framework, implemented by World Bank
		Development of the Flood Forecasting and Warning System for the Sava River Basin - Sava FFWS	Implemented	Started in June 2016; 3 pre-releases, Release 1.0 including testing and Release 2.0 implemented and handed over to the Parties and Montenegro along with the technical and user documentation; Sava HIS upgrade implemented; Workshops and User trainings conducted:	Deltares, NL; Royal Haskoning DHV, NL; Eptisa, ES; HEIS, BA		

List of the FASRB-related projects implemented or ongoing in the reporting period						
No	Project title	Status	Remark on the status / Implementation period	Lead partner(s) / Consultant	Budget (k€)	Funding source
			MoU on cooperation on regular functioning and maintenance of the Sava FFWS has been developed. Signing of the MoU is expected on the 8 <sup>th</sup> Meeting of the Parties.			
5	Sustainable Historic Environments holistic reconstruction through Technological Enhancement and community based Resilience - SHELTER	Ongoing	Started in June 2019. Implementation period 4 years. Kick off meeting held on June 13-14 2019.	Tecnalia (Spain)/ ISRBC is a Project Partner	5,999 (ISRBC 209)	EU funds (H2020)
6	Rehabilitation of the Sava River Waterway on the Sector Jaruge - Novi Grad	Ongoing	Contract for preparation of the design documentation and EIA signed on 20 Dec 2018. Kick off meeting held on 04 Feb 2019.	IGH d.o.o., Zagreb Hidrokonzalt d.o.o, Zagreb Elektroprojekt d.d., Zagreb	648,8	EC (CEF HR)
7	Implementation of RIS on the Sava river	Ongoing	In Serbia, implemented	Plovput, RS	~ 1,100.0	EC
			In Croatia, implementation finished in 2016	RGO komunikacije, HR	1,360.0	EC (IPA HR)
			In B&H, fund-raising in progress		240.0	HR

List of the FASRB-related project proposals prepared in the reporting period						
No	Project title	Duration (years)	Budget (k€)	Possible funding source	Lead partner/ role of ISRBC	Status
1	Development of technical basis for international river basin management planning in the Sava River Basin: An innovative filling of gaps in transboundary water management	2.5	2,335	EEA and Norway Grants Fund	Environmental institute (SK)/ ISRBC is Expertise Partner	Project proposal prepared and submitted to the 1 <sup>st</sup> call for proposals of EEA and Norway Grants Fund (deadline 01 July 2018). It passed the 1 <sup>st</sup> stage of evaluation. Full proposal has to be submitted until 04 of July 2019.
2	Efficient, innovative and regionally harmonized national flood warning procedures in the Sava River Basin - SAVA WAPROC	3	~ 2,220	EEA and Norway Grants Fund EU funds WBIF	Ministry of the Environment and Spatial Planning (SI)/ ISRBC is Expertise Partner	Project application prepared and submitted to EEA and Norway Grants Fund. Not selected for the 2 <sup>nd</sup> stage.
3	Inter-sectoral approach with hydropower and navigation sectors for operative flood prevention measures in Sava River Basin - INAS	2,5	1,400	EU funds (e.g. DTP)	Institute for Water of the Republic of Slovenia/ ISRBC is a Project Partner	Project application submitted to the 3rd DTP call in March 2019
4	Water contingency management plan for the Sava River Basin - WACOM	2.5	~1,700	EU funds (e.g. DTP), GEF	University of Ljubljana/ ISRBC is a Project Partner	Project application submitted to the 3 <sup>rd</sup> DTP call in March 2019
5	Danube Ecotour innovation	2.5	~ 1,200	EEA and Norway Grants Fund	Ferto-Hansag National Park Directorate (HU)/ ISRBC is Expertise Partner	Project application prepared and submitted to EEA and Norway Grants Fund. Not selected for the 2 <sup>nd</sup> stage
6	Danube EcoTOURism	2.5	~ 2,000	EU funds (e.g. DTP)	European Wilderness Society (AT)/ ISRBC is a Project Partner	Project proposal submitted to the 3 <sup>rd</sup> DTP call in March 2019.
7	Balkan Bike: Sava cycling trail in the heart of the Balkans		~ 2,000	EU funds (e.g. DTP)	Regional Development Agency Posavje (SI)/ ISRBC is Associated Project Partner	Project proposal submitted to the 3 <sup>rd</sup> DTP call in March 2019.

## ANNEX V. Selected events organized/co-organized by ISRBC in the reporting period

Date	Meeting	Venue	Organizer
16 April 2018	Meeting with Swiss Agency for Development and Cooperation (SDC)	Zagreb	ISRBC
10 May 2018	Meeting with US EPA and REC	Zagreb	ISRBC
15-17 May 2018	Sava HEC RAS workshop	Zagreb	ISRBC, US Gov.
18 May 2018	Celebration on the occasion of finalizing the 2nd phase of the US Gov. support	Zagreb	ISRBC, US Embassy
21 May 2018	1 <sup>st</sup> meeting with the representatives of the countries regarding the Sava FFWS post-project organization	Zagreb	ISRBC
24-25 May 2018	Workshop on climate change adaptation	Zagreb	ISRBC, ICPDR
01-02 June 2018	7 <sup>th</sup> Youth Parliament	Bohinj	ISRBC
07 June 2018	<b>7<sup>th</sup> Meeting of the Parties</b>	Bled	ISRBC, Slo. Gov.
12 June 2018	2 <sup>nd</sup> meeting with the representatives of the countries regarding the Sava FFWS post-project organization	Zagreb	ISRBC
03-04 July 2018	<b>49<sup>th</sup> Session of ISRBC</b>	Karlovac	ISRBC
09 September 2018	Preparatory meeting on the Protocol on Emergency situations	Zagreb	ISRBC
10 September 2018	Roundtable on the need for development of the Protocol on Transboundary impacts	Zagreb	ISRBC
13-14 September 2018	9 <sup>th</sup> Joint Statement on Guiding Principles for development of inland navigation and environmental protection in the Danube Basin follow up meeting	Vienna	ISRBC, ICPDR, DC
04 October 2018	1 <sup>st</sup> Meeting of the Task group for the Sava FFWS post-project organization	Zagreb	ISRBC
25 October 2018	Sava FFWS project closing event	Zagreb	ISRBC, WB,
29-30 October 2018	13 <sup>th</sup> Meeting with Captains from the Port Master Offices	Bajina Bašta	ISRBC



Date	Meeting	Venue	Organizer
07-09 November 2018	Study visit of North West Sahara Aquifer System Consultation Mechanism	Zagreb	ISRBC, GWP-Med
13 November 2018	2 <sup>nd</sup> Meeting of the Task group for the Sava FFWS post-project organization	Zagreb	ISRBC
14-15 November 2018	Stakeholder Forum on the draft Sava FRMP	Belgrade	ISRBC, WB, Eptisa
23 November 2018	Meeting on Marking and Reporting on Waterway Condition on the Sava River (Joint B&H – Croatian Sector)	Sl. Brod	ISRBC
04-05 December 2018	<b>50<sup>th</sup> Session of ISRBC</b>	Zagreb	ISRBC
25 January 2019	3 <sup>rd</sup> Meeting of the Task group for the Sava FFWS post-project organization	Zagreb	ISRBC
12 February 2019	4 <sup>th</sup> Meeting of the working group for the Sava FFWS post-project organization	Zagreb	ISRBC
20-21 February 2019	Regional Workshop on challenges and needs of the water and agriculture sectors	Zagreb	ISRBC, ICPDR,
25-26 February 2019	Meeting of the ISRBC and ICPDR Secretariats	Karlovac	ISRBC
28 February 2019	7 <sup>th</sup> Meeting of the Navigation Committee	Zagreb	ISRBC
05-06 March 2019	<b>51<sup>st</sup> Session of ISRBC</b>	Zagreb	ISRBC
27-28 March 2019	Study visit of the Polish water management sector representatives	Zagreb	ISRBC
09-10 April 2019	International Study Tour of Key Stakeholders of the Kura II project	Zagreb	ISRBC
16 May 2019	Central Asian Delegation Study Visit	Zagreb	ISRBC
22 May 2019	Stakeholder Forum „Jaruge –Novi Grad“	Zagreb	ISRBC
28 May 2019	5 <sup>th</sup> Meeting of the working group for the Sava FFWS post-project organization	Zagreb	ISRBC
31 May-01 June 2019	8 <sup>th</sup> Youth Parliament	Kumrovec	ISRBC
11-12 June 2018	Drina Nexus Follow-up project workshop	Zagreb	ISRBC

## **ANNEX VI. List of Acronyms & Abbreviations**

AEWS	Accident Emergency Warning System
AMI	Area of mutual interest (for flood protection)
APC	Accident Prevention and Control
ARSO	Slovenian Environment Agency
BA, B&H	Bosnia and Herzegovina
CESNI	European Committee for drawing up standards in the field of inland navigation
CEVNI	European Code for Inland Waterways
DC	Danube Commission
DHMZ	Croatian Meteorological and Hydrological Service
DTP	Danube Transnational Programme
EC	European Commission
EEA	European Economic Area
EG	Expert Group
Espoo Convention	Convention on Environmental Impact Assessment in a Transboundary Context
EU	European Union
FASRB	Framework Agreement on the Sava River Basin
FEWS	Flood Early Warning System
FFWS	Flood Forecasting and Warning System
FHMZ	Federal Hydrometeorological Service
FP	Flood Prevention
FRM	Flood Risk Management
FY	Financial Year
GEF	Global Environment Facility
GIS	Geographic Information System
GWP CEE	Regional Partnership of GWP for Central and Eastern Europe
GWP-Med	Mediterranean Regional Partnership of GWP
HIS	Hydrological Information System
HR	Republic of Croatia
ICPDR	International Commission for the Protection of the Danube River
INBO	International Network of Basin Organizations
IPA	Instrument for Pre-Accession Assistance
ISRBC	International Sava River Basin Commission

JPA SRB	Joint Plan of Actions for the Sava River Basin
LiDAR	Light Detection and Ranging
LNG	Liquefied Natural Gas
ME	Montenegro
NAV	Navigation
NGO	Non-Governmental Organization
NHMS	National Hydro-Meteorological Service
PIAC	Principal International Alert Centre
RBM	River Basin Management
RBMP	River Basin Management Plan
RCC	Regional Cooperation Council
REC	Regional Environmental Center
RHMZ	Republic Hydrometeorological Service (of Serbia or Republika Srpska)
RIS	River Information Service
RS	Republic of Serbia
SI	Republic of Slovenia
UNECE	United Nations Economic Commission for Europe
UNESCO	United Nations Educational, Scientific and Cultural Organization
USACE	United States Army Corps of Engineers
U.S. Gov	Government of the United States of America
WB	World Bank
WBIF	Western Balkans Investment Framework
WMO	World Meteorological Organization
WWF	World Wide Fund for Nature
ZHMS	Institute of Hydrometeorology and Seismology of Montenegro