

Interim Action Plan For Execution of the Framework Agreement On the Sava River Basin



Prepared for Meeting of Interested Parties
By Secretariat of the Sava Basin Initiative

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1. INTRODUCTION

With the support of the Stability Pact for South Eastern Europe, the four riparian states of the Sava River Basin – Republic of Croatia, Bosnia and Herzegovina (BiH), Serbia & Montenegro, and Republic of Slovenia (hereinafter referred to as “the Sava countries”) – have entered into a process of cooperation for the sustainable management of the water resources of the basin. The Framework Agreement on the Sava River Basin, signed by the Sava countries on December 3, 2002 and currently pending ratification, provides the principles and mechanism for regional cooperation. A central feature is the establishment of a new international body, the International Sava River Basin Commission, to implement the agreement within one year of the framework agreement entering into force.

The Sava cooperation process is in its infancy. With the framework agreement freshly signed, there is much to be done, including completion of ratification of the agreement and launching of the Sava Commission. One of the most important steps is development of an Action Plan that provides a framework for identifying, prioritizing, scheduling and managing activities and projects for executing the framework agreement. The Action Plan is intended to be the “road map” for the Commission in elaborating priority activities and projects, and is expected to be a dynamic document that will evolve as the Commission and the cooperation process matures.

When the Commission is fully operational it will assume the responsibility for executing the plan and amending it as required. However, rather than waiting for all institutional mechanisms to be put into place, the Sava countries have demonstrated the priority that they place on the regional cooperation process by moving forward with development on an initial action plan focused on their most urgent needs. In early 2002 they established a Rehabilitation and Development (RD) Working Group to assume this task, consisting of representatives from the four countries. With support of the Stability Pact, the Working Group has developed this interim Action Plan. The plan concentrates on 1) the highest priority regional activities and projects needed to begin the Sava cooperation process; and 2) activities and projects that can be initiated within the next one to two years due to their priority and level of development. While the plan is a “work in progress”, it affords the international community a unique opportunity to participate with the Sava countries from the beginning in building a new and important regional process for sustainable development.

2. LEGAL AND INSTITUTIONAL FRAMEWORK

The rapid progress that the Sava countries have made in developing and executing a process of cooperation demonstrates their commitment to success. Following is a summary of the genesis and framework of this process.

2.1. Letter of Intent and Framework Agreement on the Sava River Basin

Negotiations began with the signing of a Letter of Intent by the Parties, on November 29, 2001 in Sarajevo. The Letter of Intent was the “political” ground for cooperation and for the establishment of the International Sava Basin Initiative. Besides its political dimension, the Letter of Intent introduced a frame for establishing the scope of cooperation among the Parties. As stated in the Letter of Intent, the Parties decided to cooperate in a constructive and mutually beneficial manner for:

“...establishing of navigation, maintenance and marking of internal waterways of the Sava River and its tributaries for regulating the international regime of navigation as specified in the 1948 Convention on the Regime on the Navigation on the Danube, the recommendations of the Danube Commission, international conventions regarding inland navigation, and the resolutions of ECE/OUN... and together with the Republic of Slovenia for promoting sustainable development of the Sava Basin by regulating utilisation, protection and management of the Sava Basin water and related resources.”

The Letter of intent clearly defined the goal of cooperation, which promotes the approach embodied in the EU Water Framework Directive – all aspects of integrated water management in service of sustainable development of the Region. Deliberations of the Parties under this initiative were carried out by two working groups: 1) the International Framework Agreement Working Group, drafting the framework document; and 2) the Rehabilitation and Development Working Group, drafting the Action Plan. The International Framework Agreement Working Group completed the most important part of its task, by preparation of the texts of Framework Agreement on Sava River Basin, two annexes to the Agreement and Protocol on the Navigation Regime. The Agreement and Protocol were signed in Kranjska Gora, Slovenia, on December 03, 2002.

2.2. International Agreements relevant to the Sava River Basin Action Plan

A number of international agreements were in place prior to signing of the Framework Agreement. These are reflected in the agreement, and bolster the process of cooperation:

- The Former Yugoslavia was a member of the Convention on the Regime on the Navigation on the Danube (Belgrade 1948). All parties became members of this Convention as legal successors of the former Yugoslavia.
- Slovenia and Croatia are Parties of the UN/ECE Transboundary Waters Convention (Helsinki 1992) and the Convention on the Protection and Sustainable Use of Danube River (Sofia 1994). While the process of acceptance of these conventions has started in BiH and Serbia and Montenegro, neither country is currently a member of either of these conventions.
- Croatia addresses water management issues with Slovenia and BiH through bilateral agreements (management of the Sava River is one of the priority topics in these agreements). While Croatia has offered a bilateral agreement to FR Yugoslavia, to date an agreement has not been reached.
- FR Yugoslavia and BiH are working on a bilateral agreement regarding the Drina River (the largest tributary of the Sava and the natural border between the countries).
- Besides their participation in international and bilateral treaties, the Sava countries have been actively involved in current activities, performed through international bodies, aimed to the different segments of integrated water management. Most of these initiatives bear a direct relationship to the Sava Initiative (activities related to the Danube River Basin, Black Sea Initiatives, and Central and Eastern Europe Initiatives). Article 29 of the Agreement stated that “nothing in the present Agreement shall effect the rights or obligations of a Party arising from

any agreement that is in force on the date on which this Agreement comes into force". The obvious intention of the Parties is to develop cooperation in the Sava Region, but without conflicting with any other process that is possibly related to the Sava.

2.3. Current Status of Execution of the Framework Agreement

Preparation of this interim Action Plan is one of several critical milestones in executing the Framework Agreement. Following is a summary of parallel actions undertaken by the Sava countries to implement the agreement:

- **Ratification:** The Framework Agreement will enter into force 30 days after the date of deposit of the fourth instrument of ratification by the Parties. During the negotiation process, it was understood that the process of ratification would take about six month after the signing, in each of the Parties, in accordance with national laws. As reported at the most recent meeting of the RD Working Group, on February 3-4, the process of ratification has started in all Parties. It was expected that national parliaments would make their decisions on ratification prior to June 2003, and that the Agreement would enter into force one month later. After completion of the ratification process, the countries will have to adopt national legislation, in order to meet all requirements of the Agreement.
- **Appointment of representatives of the Commission:** One of very important duties of all parties is the nomination of representatives the Commission, with two representatives per party. At the February 3-4 meeting, Slovenia and Yugoslavia (Serbia and Montenegro) announced that they had already nominated their members of the Commission. Croatia and Bosnia and Herzegovina stated that the process of nomination had been started, and expected that they would appoint their representatives in the very near future.
- **Selection of the Commission Seat:** Selection of the Seat of the Commission was the only provision of the Agreement for which a decision of the parties was deferred until after signing, and is still under negotiation by the parties.

3. OVERVIEW OF THE SAVA REGION

3.1. Geographic Extent and Population of the Region

The Sava Basin covers a wide portion of the Sava countries and is critical to the well being of their populations. The catchment area of Sava Basin covers 60-70 percent of the land area of the four countries and is the source of more than 80 percent of their water supply. About __ percent of the total population of the countries live in the basin region (Table 1).

Country	Sava Basin Portion of Country			
	Total Land Area Of Sava Basin (Km ²)	% of Total Area of Country	Population of Sava Basin	% of Total Population of Country
Bosnia & Herzegovina				
Croatia				
Serbia & Montenegro				
Slovenia				

Table 1. Geographic/Demographic Significance of the Sava Region (NOTE: INFORMATION TO BE PROVIDED BY ECONOMICS SUB-GROUP)

Figure 1 illustrates the geographic extent of the catchment area of the Sava Basin.



Figure 1. Illustration of Extent of Sava River Basin Catchment Area

3.2. Significance of the Sava Basin Region to Country Economies

The economies of the Sava countries are highly correlated with local economies of the communities in the Sava region. As shown in Table 2, an estimated __ percent of the gross domestic products of the four countries are derived from economic activities within the Sava region. Table 2 also shows the relative significance of key economic sectors in the region.

Country	Sava Basin Part of Country						
	Gross Domestic Product (Euros)	% of total country gross domestic product	Contribution of Sectors to Gross Domestic Product				
Industry			Agriculture	Fisheries	Forestry	Transport	Other
Bosnia & Herzegovina							
Croatia							
Serbia & Montenegro							
Slovenia							

Table 2. Economic Significance and Key Economic Sectors of the Sava Region (NOTE: INFORMATION TO BE PROVIDED BY ECONOMICS SUB-GROUP)

4. ACTION PLAN OBJECTIVES AND PRIORITIES

Development of the Action Plan is directed toward achieving the objectives of the Framework Agreement. This section describes the objectives and the methodology used by the RD Working Group to establish priorities to fulfill these objectives.

4.1. Objectives and Requirements of the Framework Agreement to which this Interim Action Plan is Directed

The Framework Agreement defines three objectives of the process of cooperation (Article 2):

1. Establishment of an international regime of navigation on the Sava River and its navigable tributaries;
2. Establishment of sustainable water management; and
3. 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.

To further the achievement of these objectives, the agreement calls for the parties to conclude protocols for regulating a number of activities. A protocol on the regime of navigation was prepared by the RD Working Group and included as an annex to the Framework Agreement. Other protocols called for in the agreement include (Articles 8, 30):

- Protection against flood, excessive groundwater, erosion, ice hazards, drought and water;
- Water use/utilization;
- Exploitation of stone, sand, gravel, and clay;
- Protection and improvement of water quality and quantity;
- Protection of aquatic eco-systems;
- Prevention of the water pollution caused by navigation;
- Emergency situations; and
- Procedures for issuance of water law acts for installations and activities that may have a transboundary impact on the integrity of the water regime.

This interim Action Plan focuses on the highest priority needs of the Sava region to further the achievement of the three objectives of the Framework Agreement. Emphasis is on activities and projects that can be initiated within the next one to two years and completed within five years. These are elaborated in Section 5. To the extent that conclusion of specific protocols is critical to planning and execution of the projects, these are addressed within the work plans for individual projects.

4.2. Methodology for Establishing Priorities

Given the many critical needs facing the Sava countries, one of the most difficult challenges facing the RD Working Group in developing the Action Plan was identification and elaboration of priorities for initial execution of the Framework Agreement. The new situation of managing the Sava basin in an international

framework requires a concentration on those projects and activities that will truly further regional objectives. Further, the principle of integrated water management guiding the agreement requires a reasonable balance of use/utilization of water resources, protection of the water and protection from harmful effects of floods and other hazards.

To address the need to establish priorities, the RD Working Group began by identifying the most critical problems to be addressed, exploring alternative solutions, and applying criteria for selecting alternatives. The Working Group organized itself into functional Sub-groups: navigation; integrated water management/environment; and economic development. Each Sub-group developed a list of problems, project fiches for each solution (provided in the Annex), and criteria for establishing priorities. While each Sub-Group applied specific criteria tailored to its individual focus area, the Working Group as a whole agreed that the main principles for establishing of criteria for prioritization were to be based on:

- Regional importance;
- Scope of the project;
- Relation to national plans, strategies and policies;
- Relation to EU approximation;
- Interest of two or more countries
- Overlapping of interests of two or three subgroups;
- Public opinion;
- Feasibility of the project;
- Possible contribution of the Parties;
- Compatibility with donor priorities; and/or
- State of preparation of the activity.

5. DETAILS OF ACTION PLAN

This section describes the priority activities and projects identified by the RD Working Group for initiation during the initial phase of execution of the Framework Agreement. The section is organized in accordance with activities directed to achieving the three objectives of the agreement, as described in Section 4.1, namely:

- Revitalizing navigation;
- Developing a basin management plan; and
- Assuring regional flood protection.

5.1. Revitalizing Navigation

5.1.1. Reopening Navigation

Navigation on the Sava River and its tributaries was well developed in the former Yugoslavia. The commercial waterway was 586 kilometers long from Belgrade to Sisak (see Figure 2). Almost 15 million tonnes of different materials and products were

transported in 1990 directly, and additional materials were transported with combinations of modes using railway and road transport connected with ports on the Sava River. At that time, two steel facilities and two oil refineries were directly (Sisak) or indirectly by rail (Zenica) connected with ports on the Sava River. Navigation on the Sava River was an important connection between the Adriatic Sea (Rijeka and Ploce ports) and the Danube River-Black Sea and Western Europe.



Figure 2. Navigable Portion of Sava Basin

Unfortunately, all these activities were stopped during the war in the former Yugoslavia. After the war, Yugoslavia and Croatia reopened navigation in small portions of the river, but the measures were insufficient to serve the whole region. Reopening of the navigable portion of the Sava is a high priority for the region. As noted in the Transport Infrastructure Regional Study (TIRS), rehabilitation of the Sava navigation channel and its utilization for international transport is one of the most urgent actions to be done on the transport system in the Balkans¹.

The Navigation Sub-Group of the RD Working Group has worked vigorously over the past year to develop an Action Plan to meet the need for a regional approach to reopening navigation, while recognizing the need to meet this need with a phased approach in accordance with regional goals and priorities. To this end the Sub-Group has defined three goals to reopen navigation:

- Goal 1. Rehabilitation of Navigation and Restoration of waterways on river Sava to the level of navigability before 1990, that is to the level of navigability Class IV to Brcko and Class 3 further to Sisak.
- Goal 2. Development and improvement of navigation to the Class 4 level of navigability throughout the entire navigable waterway in accordance with recommendations of the

¹ *Transport Infrastructure Regional Study(TIRS) in the Balkans, Final Report, March 2002.*

- Danube commission and standards of European Union and by implementing the information system for navigation control.
- Goal 3. Development and improvement of navigation by bringing the waterway to the level of 5B category of navigability.

The Sub-Group has developed an Action Plan to fulfill Goal 1. All of the steps of this plan are provided in the project fiche for reopening navigation, in the annex. A substantial amount of preparation has been completed by the countries, and with expeditious support of the international community the work to complete this phase could be completed within about one year. Elaboration of the Action Plan for meeting the second and third goals will be the responsibility of the Sava Commission.

The Action Plan consists of the following measures:

1. Preparation of protocols: A protocol for regulating the regime of navigation has been completed, and is provided as an annex to the Framework Agreement. A second protocol addressing prevention of the water pollution caused by navigation is identified in the Framework Agreement (see Section 4.1). This protocol will be addressed by the Sava Commission.
2. Clearance of unexploded ordnance from the riverbed in Sava River: The execution of the project includes necessary site facilities organization (work sites on shore and offshore), geodetic and all other necessary surveying on the river fairway aimed at detection of UXO, survey of all suspicious locations where the signals have shown a possibility of UXO (survey boat, diving boat with divers, experts and boat crew), UXO removal and disposal, atypical area survey (non equipment survey) and verification-sampling-testing.
3. Clearance of bridge debris in the area of Ostruznica and Jasenovac: Lifting up of one river bridge structure and demolition and removal of damaged 2,000 ton steel structure in the area of Ostruznica. Demolition and removal of damaged concrete structure in the area of Jasenovac.
4. Bathymetric survey and rehabilitation plan for existing waterway: Bathymetric survey of the riverbed with proper equipment placed on board ship. Development of the rehabilitation plan on the basis of bathymetric data.
5. Work programs for rehabilitation of fairway for minimum navigation category: These programs include riverbed dredging to provide necessary depth, rehabilitation of the existing riverbank constructions and building new riverbank constructions as required.
6. Marking of waterway: This project consists of rehabilitation and reconstruction of floating and bank signs.

5.1.2. Rehabilitating Ports and Multimodal Transport Facilities

In concert with reopening the navigation channel, it is important that ports along the Sava be rehabilitated to efficiently accommodate commercial river traffic. The Action Plan calls for rehabilitation of ports on a schedule that will enable the free flow and transfer of goods as traffic increases over time. The estimated schedule and cost for rehabilitation/modernization of the ports is shown in Table 3.

Project/Country	Estimated Cost (Million Euro)	Implementation Time (Years)
Demining related to ports	0.5-1.0	1-2

Reconstruction of Brcko port/BiH	4.5	2.5
Reconstruction of Samac port/ BiH	5.5	2.5
Rehabilitation of Slavonski Brod port/CRO	30	6
Improvement of Belgrade port/S,M	10.5	2
Development, Upgrading and Construction of Free Trade Zone Sabac/S,M	8.6	2

Table 3. Summary of Action Plan for Rehabilitation of Ports

It should be noted that while the ports are located in specific countries, they are considered regional projects by the RD Working Group due to their importance to the economy of the region. Several of the port projects are included in the TIRS study's short-term investment program, and are given Category I (projects under Category I were deemed in the study to be immediately eligible for financing and recommended for immediate implementation). These are: Brcko port; Samac port; and Belgrade port.

The status of preparation of each port project varies. For example, a feasibility study has been prepared for rehabilitation of the Brcko port, and the port is currently undergoing a management restructuring study. A common regional need for all ports is a regional transport study to provide an analytical baseline for preparing individual ports projects for financing. This study should address the current and projected economic climate of the region, the role of navigation in the overall scheme of transport in the region including linkages with Trans European Corridors VII, V-B, and V-C, coordination and linkages with regional transport programs including REBIS, and a range of projections of commercial navigation.

5.2. Developing a Basin Management Plan

The second objective of the Framework Agreement is to establish sustainable water management. The agreement calls for the adoption of a basin management plan on the proposal of the Sava Commission (Article 12). The RD Working Group has developed an Action Plan to lay the groundwork for the basin plan. The plan is based on several significant factors:

- Emphasis of the Framework Agreement on sustainable development of the region through the integrated management of water resources;
- Selection of the Sava Basin by the International Commission for the Protection of the Danube River Basin as a pilot project for realization of the principles stated in the EU Water Framework Directive;
- Position of Sava River Basin in different international activities (e.g., ICPDR initiatives relevant to Sava as a sub-basin of the Danube Basin, DABLAS priorities for the protection of the Black Sea, etc.); and
- Development of the basin management plan in accordance with the EU Water Framework Directive, as elaborated in the Common Strategy on the Implementation of the Water Framework Directive (2-4 May 2001).

Key activities in the Action Plan, in accordance with their broader (Water Framework Directive) and specific importance (WFD and the Agreement), are divided into four different phases as shown in Table 4:

Phase	Activities	Completion Date
<i>PHASE 1:</i>	<i>- Identification of the Sava river basin and its parts belonging to each of the countries - participants in the Agreement, establishment of adequate organizations on these areas in order to implement only the Agreement</i>	<i>Dec. 2003</i>
<i>PHASE 2:</i>	<i>- Establishment of reference conditions and reference sites for the inter-calibration network required for comparable monitoring, water regime control and operational realization of integral water management tasks</i>	<i>Dec. 2004</i>
	<i>- Preparation for specification of values for the ecological status classification systems</i>	<i>Dec. 2004</i>
	<i>- Analyses of the characteristics of the Sava river basin, facilities constructed for flood protection, water protection and water utilization, their impact on water regime and water use economy</i>	<i>Dec. 2004</i>
<i>PHASE 2a:</i>	<i>-Establishment of joint criteria for assessing groundwater</i>	<i>Dec. 2003</i>
	<i>- Development and establishment of joint methodology and program for preparation of integrated Sava River Basin Management Plan</i>	<i>Dec. 2003</i>
	<i>- Individual and joint actions in absence of adoption criteria and Water Management Plan</i>	<i>Continually</i>
<i>PHASE 3:</i>	<i>- Operational monitoring program</i>	<i>Dec. 2006</i>
<i>PHASE 4:</i>	<i>- Finalization and publication of the Sava River Basin Management Plan</i>	<i>Dec. 2009</i>

Table 4. Action Plan for Development of the Sava Basin Management Plan

Each of the phases will include integrated activities related to the management of water protection, flood protection and water use, in the existing and in the future (planned) river basin system of sustainable development.

In order to lay the groundwork for execution of this plan, the Working Group has identified seven critical projects that should be initiated over the next year (project fiches are provided in the Annex):

1. Development of tools for information sharing for the Sava River Basin: Development of a coordinated approach to river basin management requires as a first step a needs assessment of common information management tools and procedures.
2. Development Strategy for River Basin Management for the Sava River Basin.
3. Revision and improvement of the existing flood control system: The existing flood control systems for the Sava countries are not linked or harmonized. A Joint Flood Control Plan

including guidance on a harmonized approach to managing reservoirs and retention basins is needed.

4. Implementation of the EU Water Framework Directive testing guidelines: The CARDS regional program for 2003 includes a proposed regional project to support implementation of the Water Framework Directive in the Sava Basin by testing WFD guidance in the four Sava countries. Through the process of cooperation established by the Framework Agreement, the countries are working in concert to plan for this project.
5. Improvement of the monitoring system of water quality and quantity parameters: Existing monitoring, laboratory and information management in the Sava countries are not linked or harmonized. A harmonized system needs to be developed in accordance with the system being developed for the Danube Basin.
6. Establishment of a joint warning system for flood control and accidental pollution: Existing warning systems for the four countries are not adequate. They are not linked or harmonized. In order to improve and harmonize the system in the Sava Basin, the establishment of a unique harmonized system is needed, that should be compatible with the warning system being developed in the Danube Basin.
7. Potential possibilities/limitations of excavation of sand and gravel: The Framework Agreement calls for completion of a protocol to regulate the exploitation of sand and gravel in riverbeds.

5.3. Assuring Regional Flood Protection

The third objective of the Framework Agreement is to eliminate hazards, including the hazards posed by floods. This objective recognizes that a fundamental precondition to the wholesome and sustainable development of the Sava region is the protection of citizens and properties from flooding. In the former Yugoslavia a comprehensive flood control program was initiated and partially implemented, beginning in the early 1970's. The system included a comprehensive system of measures to divert and control waters of the Sava in the Central Sava region of Croatia, and to protect downstream localities with engineered embankments. However, this system fell into serious disrepair during the 1990's.

Initiation of a comprehensive system of flood control and management is urgently needed. The system needs to provide a framework for action that addresses the water regime for the entire basin, and to provide for coordinated action of the Sava countries within the context of an integrated water management. With the Framework Agreement for the Sava Basin now in place, a process of cooperation has been established that will enable the countries to work together in developing and executing such a system. The system will ultimately be an integral component of the basin management plan, discussed in Section 5.2.

The development of a comprehensive and environmentally sustainable flood control and management system will require significant resources and time to plan, design, and execute. For example, hydrological information for the basin is seriously outdated in light of changes to the water regime that have occurred over the past decade, underscoring the need for new hydrologic studies. The Rehabilitation and Development Working Group is working to define the specific needs and implementation measures, and these requirements will be reflected in the Action Plan.

While this work is moving forward, however, the Working Group recognizes that there is an urgent need to take immediate steps to protect the populations living within the flood prone areas of the basin. For this reason, the Working Group has established an interim goal for flood protection that will provide immediate protection while supporting the longer-term goal of achieving a comprehensive control and management system. This objective is to restore the integrity of the existing embankments to the level of 1990. Achievement of this objective has been identified as a high priority for the first phase of the Action Plan.

Restoration of the embankments to their original levels of integrity is a modest objective that could be initiated within the next two years, and completed within the next four to five years, with the appropriate provision of technical assistance by the international community in concert with the application of the expertise of the Sava countries. Specific projects are shown in Table 5 (see project fiches in Annex), with cost estimates where available.

Project	Estimated Cost (millions of Euro)	Time Period of Implementation (years)
Demining of the Sava Basin embankments		1 - 2
Existing embankment - Croatia (Middle Posavina)	*	4
Existing embankment - BiH (Posavina Odzak & Middle Posavina)	24.0	5
Subsystem in FRY area	19.0	

*Total cost of upgrading the comprehensive Central Sava Flood Protection System is 130 million Euros; however, the project is to be carried out in phases. Additional study is needed to identify costs of initial phases of project.

Table 5. Projects to Restore the Integrity of Flood Protection Embankments to 1990 Levels

The steps involved in execution of these projects include:

1. Development of protocols: Article 30 of the Framework Agreement for the Sava Basin calls for concluding protocols for protection against flood, excessive groundwater, erosion, ice hazards, drought and water. While conclusion of this protocol is important for the execution of a comprehensive flood protection and management plan, it is not clear that it must be completed prior to the initiation of projects to rehabilitate the existing embankments. Nevertheless, to the extent that protocols are required, they will be concluded on at least an interim basis prior to the execution of the rehabilitation projects.

2. Demining of the Sava Basin embankment areas: Clearing the embankment areas of mines and unexploded ordnance is an essential first step that must be completed before any on-site activity can be initiated. This task is a great challenge due to the uncertainty over the numbers and locations of mines in the area, and is complicated further by the possibility of movement of the mines due to flooding and changing current conditions in the water regime. It may be possible to conduct the demining in phases along the river basin, enabling the initiation of embankment rehabilitation project in cleared areas. However, this would have to be done under a carefully planned and executed strategy, particularly in light of the potential for movement of the mines.

3. Assessment of existing embankments: On-site activities to be launched immediately upon completion of demining.
4. Preparation of detailed design/tender documents: Based on results of embankment assessments.
5. Tendering and execution: To be completed within five years.

5.4. Common Needs

(NOTE: THIS SECTION IS STILL UNDER PREPARATION, WHILE THE SECRETARIAT AWAITS FOR ADDITIONAL INFORMATION. WE INTEND TO BRIEFLY TWO COMMON NEEDS THAT CUT ACROSS ALL SUB-GROUPS:

1. DEMINING

2. ASSISTANCE FOR FEASIBILITY STUDY SUPPORT AND ADDITIONAL PROJECT PREPARATION AS REQUIRED TO FULLY PREPARE PROJECTS FOR FINANCING.

THE SECRETARIAT WOULD APPRECIATE ANY ADDITIONAL AVAILABLE INFORMATION REGARDING PRIORITIES FOR DEMINING RELEVANT TO THE ACTION PLAN, AND ANY ADDITIONAL INFORMATION ON FEASIBILITY STUDY REQUIREMENTS FOR SPECIFIC PROJECTS IN THIS PLAN.

6. ANNEX

6.1. Framework Agreement on the Sava River Basin

(TO BE INSERTED)

6.2. Project Fiches Included in this Interim Action Plan

(NOTE TO REVIEWERS: PLEASE MAKE SURE THAT THESE PROJECT FICHES ARE THE MOST RECENT VERSIONS)

1. Reconstruction of navigation and rehabilitation of waterway to the level of 1990.
2. Improvement of existing facilities at the Port of Belgrade
3. Reconstruction of River Port Brcko
4. Reconstruction of River Port Samac
5. River Port of Slavonski Brod Rehabilitation
6. Development, Upgrading, and Construction of Free Trade Zone Sabac (NOTE: PROJECT FICHE NOT INCLUDED...THE SECRETARIAT NEEDS THE FILE FOR THIS PROJECT FICHE)
7. Revision and Improvement of the Existing Flood Control Systems (NOTE: ALL 7 PROJECT FICHES BY THE IWM/ENVIRONMENT SUBGROUP HAVE BEEN REVISED... THE SECRETARIAT IS WAITING FOR THE LATEST VERSIONS)
8. Improvement of the monitoring system of water quantity and quality parameters
9. Development Strategy for River Basin Management Plan in Sava River Basin
10. Development of Tools for Information Sharing for the SRB
11. Establishment of the Joint Warning System for Flood Control and Accidental Pollution
12. Implementation of WFD – Testing guidance
13. Demining of the Sava Embankment Areas (NOTE: THE SECRETARIAT HAS NOT RECEIVED A PROJECT FICHE FOR THIS PROJECT)
14. Reconstruction of the Levee on the Right Bank of River Sava: Sabac-Cevrntija
15. Reconstruction of the Levee on the Right Bank of River Sava: Dragojevac-Orasac
16. Reconstruction of the Levee on the Right Bank of River Sava: Banov Brod-Crna Bara
17. Rehabilitation and Reconstruction of Sava Embankment on BiH Territory
18. Project Sava – Upgrade of Central Sava Basin Flood Protection System

PROJECT FICHE

Project No: 1	Project Sector: NAVIGATION				
Project Name:	Reconstruction of navigation and rehabilitation of waterway to the level of 1990.				
Nature Project:	New	<u>Rehabilitati</u> <u>on</u>	Upgrade	Other	
Location:	River Sava from rkm 0 to rkm 586				
Status of Project:	Identification	Planning	Study	I	Pre-Procurement
Project Objectives:	Safety of navigation on Sava river, under conditions on level of 1990. minimum				
Project Description:	<ul style="list-style-type: none"> • Clearance of unexploded ordnance from riverbed in river Sava {The execution of project includes necessary site facilities organization (work sites on shore and offshore), geodetic and all other necessary surveying on the river fairway aimed at detection of UXO, survey of all suspicious locations where the signals have shown a possibility of UXO (survey boat, diving boat with divers, experts and boat crew), UXO removal and disposal, atypical area survey (non equipment survey) and verification-sampling-testing.} • Clearance of bridge debris in area of Ostruznica and Jasenovac {Lifting up of one river bridge structure and demolition and removal of damaged of 2,000 tons steel structure in area of Ostruznica. Demolition and removal of damaged concrete structure in area of Jasenovac.} • Bathymetric survey and rehabilitation plan for existing waterway {Bathymetric survey of the riverbed with proper equipment placed on board ship. Development of the rehabilitation plan on basis of bathymetric data's. } • Work programs for rehabilitation of fairway for minimum navigation category {These programs include riverbed dredging to provide necessary dept, rehabilitation of the existing riverbank constructions and building in new riverbank constructions.} • Marking of waterway {Project predicts rehabilitation and reconstructions of floating and bank signs.} 				
Estimated Investment Cost	• Clearance of unexploded ordnance from riverbed in river Sava Ostruznica 1 218 000				

(EURO)	<p>Ostruznica 2 218 000 Obrenovac- Baric 238 000 Sabac 198 000</p> <ul style="list-style-type: none"> • Clearance of bridge debris in area of Ostruznica and Jasenovac <p>Ostruznica 1 1 000 000 Ostruznica 2 2 500 000 Jasenovac 350 000</p> • Bathymetric survey and rehabilitation plan for existing waterway <p>1 002 000 575 000</p> • Work programs for rehabilitation of fairway for minimum navigation category <p>17 248 000</p> • Marking of waterway <p>2 298 000</p> • demining of river banks 600 000 <p style="text-align: center;">TOTAL: 26 445 000</p>
Expected Benefits:	<p>With completion of this Project, fairway of River Sava could be declared safe for navigation and proper certificates issued and will improve traffic and commercial situation in region.</p> <p>Also, completion of this Project will improve environmental situation in Sava river basin, because of use of environmental friendly transport mode.</p>
Existing Reports:	<p><i>Title: Clearance program for the river Sava in four location</i> <i>Author: MPC Engineering ltd</i> _____ <i>Date: September 2002</i> _____ <i>Source: _____</i></p> <p><i>Title: Rehabilitation of the Sava River</i> <i>Author: Croatian Waters and VPB</i> <i>Date: August 2002</i> _____ <i>Source: _____</i></p> <p><i>Title: River Sava Recovery and development Navigation Project</i> <i>Author: VP Regulacije</i> <i>Date: September 2002</i> _____ <i>Source: _____</i></p> <p><i>Title: Clearance program for the river Sava in Ostruznica area</i> <i>Author: Mostogradnja AD</i> _____ <i>Date: August 2002</i> _____ <i>Source: _____</i></p> <p><i>Title: Clearance program for the river Sava in Jasenovac area</i> <i>Author: Hrvatske ceste doo</i> _____ <i>Date: August 2001</i> _____ <i>Source: _____</i></p>

	<p>Title: <i>River Sava Recovery and Development Navigation Project</i> Author: <i>VP Regulacije</i> Date: <i>September 2002</i> Source: _____</p> <p>Title: <i>Rehabilitation of the Sava River</i> Author: <i>Faculty of Civil Engineering, Croatian Waters, and VPB</i> Date: <i>August 2002</i> Source: _____</p>				
Implementation Program (years)	Preparation:	Expropriation:	Construction:	TOTAL:	
				1	
Implementation Authority:	Ministry of Transport and Telecommunication of Republic of Serbia, Ministry of Maritime Affairs, Transport and Communications of RC Ministry of Communications and Transport of B&H				
Implementation Risks and Assumptions:	No				

ELEMENTS OF REGIONAL COOPERATION

Regional dimension	<p>Since this River flows, from Slovenia through Croatia, B&H and FRY to the Danube estuary, and connects these four countries, it is understood that there is an interest of these states to support jointly the Project to reopen the navigation on the Sava River throughout its overall course.</p>
<p><i>In which way this project can enhance Sava Commission</i></p> <p>-basic, -functional, -instrumental role/function as here described</p>	<p>√Basic: to trigger political dialogue and confidence - building measures;</p> <p>√Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence building measures;</p> <p>√Instrumental: to link the devised programs in line with EU</p>

	integration initiatives and the adoption of international convention and standards.
Which instrument/ decision Sava Commission could take in order to: ADVANCE/ACCOMPLISH/COMPLETE THE PROJECT	The Sava Commission could adopt decision on Rules on Navigation Safety and Rule for Minimal Dimensions of Fairway.
Contribution of the countries (completed/planned)	<ul style="list-style-type: none"> • Republic of Croatia and Bosnia and Herzegovina invested 600 000 EURO in demining of riverbanks. •FR Yugoslavia (Republic of Serbia) prepared Project Proposal for clearance of unexploded ordnance from riverbed in river Sava •FR Yugoslavia (Republic of Serbia) prepared Project Proposal for clearance of bridges debris in area of Ostruznica. •Republic of Croatia partly finished debris clearance in area of Jasenovac (more clearance is needed) •FR Yugoslavia (Republic of Serbia) prepared Project Proposal for rkm 0,00- rkm165 •Republic of Croatia finished bathymetric survey and planning for part of fairway from rkm 207,00- rkm 586 (Invested in preliminary design 348 000 EURO) •FR Yugoslavia (Republic of Serbia) prepared Project Proposal for rkm 0,00- rkm165,00: these projects include reconstruction works in critical parts of fairway, totally 28 km of fairway •B&H finished bathymetric survey and planning for rkm 165,00- rkm 207,00 (invested 152 000 EURO) •Republic of Croatia finished bathymetric survey and planning for part of fairway from rkm 207,00- rkm 586,00: completely finished reconstruction works for 170 km of fairway in critical parts. (Invested in design 150 000 EURO) •FR Yugoslavia (Republic of Serbia) prepared Project Proposal for rehabilitation of fairway for rkm 0,00- rkm 165,00 •Republic of Croatia invested 3 000 000 EURO in 2002 and shall invest 2 850 000 EURO for works on rehabilitation of fairway. •Republic of Croatia completely reconstructed signs from rkm 507,00- rkm 586,00; and partly finished reconstruction from rkm 335,00 - rkm 507,00 only on left bank (Invested 535 000 euro) <p style="text-align: center;">TOTAL: 7 635 000 EURO</p>
International support (received/pledged)	152 000 EURO paid by OHR for bathymetric survey and planning for rkm 165,00- rkm 207,00. Done by VP Regulacije, Sremska Mitrovica, FRY

<p>International support needed</p>	<ul style="list-style-type: none"> • Clearance of unexploded ordnance from riverbed in river Sava <ul style="list-style-type: none"> Ostruznica 1 218 000 Ostruznica 2 218 000 Obrenovac- Baric 238 000 Sabac 198 000 • Clearance of bridge debris in area of Ostruznica and Jasenovac <ul style="list-style-type: none"> Ostruznica 1 1 000 000 Ostruznica 2 2 500 000 Jasenovac 350 000 • Bathymetric survey and rehabilitation plan for existing waterway <ul style="list-style-type: none"> 502 000 425 000 • Work programs for rehabilitation of fairway for minimum navigation category <ul style="list-style-type: none"> 11 398 000 • Marking of waterway <ul style="list-style-type: none"> 1 763 000 <p style="text-align: center;">TOTAL: 18 810 000 Euro</p>
<p>Which areas of cooperation as listed in FASRB will project include</p>	<p>Project will include cooperation in the Area of Regime of Navigation as listed in Article 10 of FASRB and Sustainable Water Management as listed Article 11 of FASRB</p>
<p>Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)</p>	<p style="text-align: center;">No</p>

PROJECT FICHE

Project No: 2	Project Sector: navigation -ports				
Project Name:	Improvement of existing facilities at the Port of Belgrade				
Nature Project:	New	Rehabilitatio n	Upgra d e	Other	
Location:	Belgrade				
Status of Project:	Identificatio n	Planning	Study	Design	Pre- Procurement
Project Objectives:	To improve the performance of the port and its capacity, and facilitate the development of multimodal transport				
Project Description:	<p>The Port of Belgrade is the largest river port in on the Danube River Basin in FRY. It may accommodate for general cargo, bulk and container traffic. Present level of services is low due to obsolete and unefficient cargo-handling equipment as well as lack of regular maintance. Project includes:</p> <ul style="list-style-type: none"> - Restoration or replacement of basic cargo-handling equipment (bert cranes) and storage yard equipment. Purchase of a 45 ton-capacity bert-crane, - Restoration or replacement of existing container handling equipment, - Improvement and expansion of the container terminal, - Port modification to improve communication and introduce new information technologies, - Improvement of road and rail accesses <p>Traffic has been reduced from 2 million ton in 1991. to 0,5 million in 2000, mostly bulk and liquid cargo. Projected traffic in 2015 is about 1,5 million ton (percentage of international: 20%)</p>				
Estimated Investment Cost (EURO)	10 650 000EUR				
Expected Benefits:	<p>Create additional capacities to meet the expected traffic increase when the Danube and the Sava will be cleaned,</p> <ul style="list-style-type: none"> - Reduce operating costs and time of handling, - Facilitate a better utilisation of surface transport infrastructure, - Attract new business opportunities 				
Existing	<p><i>Title:</i> _____</p> <p><i>Author:</i> _____</p>				

Reports and activities:	<i>Date:</i> _____				
	<i>Source:</i> _____				
Implementation Program (years)	Preparation : 0,5	Expropriatio n: n:	Constructio n: 1,5	TOTAL: 2	
Implementation Authority:	Republic of Serbia, City of Belgrade, Port of Belgrade				
Implementation Risks and Assumptions:	Existing facilities are utilised only 25% of their capacity, but may be rapidly overcrowded when navigation on Danube and Sava rivers resumes normally				

ELEMENTS OF REGIONAL COOPERATION

Regional dimension	In which way(s) this project is fostering regional cooperation? The Port of Belgrade belongs to the integrated Sava River transport system, and presents connection with the European corridor the Dunav-Rajna-Majna
<i>In which way this project can enhance Sava Commission</i> -basic, -functional, -instrumental role/function as here described	<ul style="list-style-type: none"> • Basic: to trigger political dialogue and confidence - building measures; X Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence building measures; • Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.
Which instrument/ decision Sava Commission could take in order to: ADVANCE/ACCOMPANY/COMPLETE THE PROJECT	Use all instruments as listed in Article 4 of Statute of International Sava River Basin Commission
Contribution of the countries (completed/planned)	Yugoslavia Know How from existing practise
International support (received/pledged)	None
International support needed	Technical and financial assistance (equipment, hardware, software and training)
Which areas of cooperation as listed in FASRB will project include	Article 2 a
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	No

PROJECT FICHE

Project No: 3	PROJECT SECTOR:					
	ROAD	Rail	Ports	Waterways ✓	Aviation	Inter-modal
Project Name:	RECONSTRUCTION OF RIVER PORT BRČKO					
Nature Project:	New	Rehabilitation ✓	Upgrade	Other		
Location:	BRČKO (SEE MAP NUMBER: 21-B)					
Status of Project:	Identification	Planning	Study ✓	Design	Pre-Procurement	
Project Objectives:	<i>Re-establishment of activities in the Port of Brčko</i>					
Project Description:	<p><i>Final studies, preliminary engineering, designs and preparation of equipment procurement and construction documentation followed by construction activities including de-mining, dredging port access, quay reconstruction, rehabilitation of warehouse 4, road and rail infrastructure and installation of new 5 ton crane.</i></p> <p><i>Traffic (thousand tons per day): Existing: 0/744,000 tons in 1984 Projected 2015:500,000 t % International: 80</i></p>					
Estimated Investment Cost (Euro):(2001 prices)	4.5 million					
Expected Benefits:	<p><i>Port becomes operational again as an integral part of the Sava river transport system which in turn links with Pan European Corridor VII</i></p> <p><i>Stimulation of economic activities</i></p>					
Existing Reports:	<p>Title: Mater Plan for Transport in B&H – Final Report Author: Pacific Consultants International Date: March 2001 Source: Japanese Grant Fund implemented by JICA</p> <p>Title: Feasibility Study for Rehabilitation of Brčko Port Author: Parsons Brinckerhoff Int. in association with Manalytics International (USA) and Bosnaputevi d.d. Sarajevo (B&H) Date: November 15th 2000 Source: TDA (USA)</p>					
Implementation Programme (years):	Preparation: 1	Expropriation: n/a	Construction: 1.5	Total: 2.5		
Implementation Authority:	<i>Ministry of Civil Affairs and Communications of Bosnia and Herzegovina and competent entity bodies</i>					

<p>Implementation Risks and Assumptions:</p>	<p>IMPLEMENTATION AGENCIES AND MEASURES AND OPERATIONAL STRUCTURES AND INSTITUTIONS ARE ESTABLISHED, FULLY RESOURCED AND ARE EFFECTIVELY OPERATIONAL.</p> <p>INTERNATIONAL AGREEMENTS ARE IN PLACE TO RE-ESTABLISH SAVA AND DANUBE RIVER OPERATIONS.</p> <p>CONSULTANT AND DE-MINING AND CONSTRUCTION RESOURCES ARE AVAILABLE TO UNDERTAKE THE PROJECT PREPARATION AND CONSTRUCTION PHASES RESPECTIVELY.</p>
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ELEMENTS OF REGIONAL COOPERATION

Regional dimension	In which way(s) this project is fostering regional cooperation? <i>By instigation of regional trade cooperation in the region through exchange of goods and services using the advantages of multi-medial transportation system.</i>
In which way this project can enhance Sava Commission - basic , - functional , - instrumental role/function as here described	<ul style="list-style-type: none"> • Basic: to trigger political dialogue and confidence - building measures; • <u>Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence;</u> • Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.
Which instrument/ decision Sava Commission could take in order to: Advance/accompany/c omplement the project	<i>Political support contained in the Stability Pact initiative, connected to the activities regarding Sava Basin; harmonization of decisions and recommendations with the proposed and implemented projects: JICA, IMG, OHR.</i>
Contribution of the countries (completed/planned)	<p>IMG - Port reconstruction - war damages and urgent repairs</p> <p><i>OHR - Feasibility study for Brčko Port rehabilitation JICA - TMAP for B&H OHR - Bathymetrical study of Sava river (165 - 207 rkm)</i></p>
International support (received/pledged)	<p><i>Italy - received grant in the amount of 1.200.000 DM (KM)</i></p> <p><i>Italy - pledged grant in the amount of 1.195.000 EURO</i></p>
International support needed	<i>Financing of offered priority projects in revitalization and rehabilitation of the Port capacities.</i>
Which areas of cooperation as listed in FASRB will project include	<i>Establishing of the Sava river navigation regime</i>
Additional measures to be taken in	<ul style="list-style-type: none"> - <i>Navigation regime,</i> - <i>Sustainable water management,</i>

accordance with WFD if required (e.g. economic analysis)	- <i>Water resources management plan.</i>
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PROJECT FICHE

Project No: 4	PROJECT SECTOR:					
	ROAD	Rail	Ports	Waterways ✓	Aviation	Inter-modal
Project Name:	RECONSTRUCTION OF RIVER PORT ŠAMAC					
Nature Project:	New	Rehabilitation ✓	Upgrade	Other		
Location:	ŠAMAC (SEE MAP NUMBER: 21-BO)					
Status of Project:	Identification ✓	Planning	Study	Design	Pre-Procurement	
Project Objectives:	<i>Re-establishment of activities in the Port of Šamac</i>					
Project Description:	<i>Final studies, preliminary engineering, designs and preparation of equipment procurement and construction documentation followed by construction activities including de-mining, dredging port access, quay reconstruction, new warehouse, rehabilitation of road and rail infrastructure and installation of new 5 ton crane. Traffic (thousand tons per day): Existing: 0/500,000 tons in 1985 Projected 2015:400,000 t % International: 80</i>					
Estimated Investment Cost (Euro):(2001 prices)	5.5 million					
Expected Benefits:	<i>Port becomes operational again as an integral part of the Sava river transport system which in turn links with Pan European Corridor VII Stimulation of economic activities</i>					
Existing Reports:	Title: Mater Plan for Transport in B&H – Final Report Author: Pacific Consultants International Date: March 2001 Source: Japanese Grant Fund implemented by JICA					
Implementation Programme (years):	Preparation: 1	Expropriation: n/a	Construction: 2	Total: 3		
Implementation Authority:	<i>Ministry of Civil Affairs and Communications of Bosnia and Herzegovina and competent entity bodies</i>					

Implementation Risks and Assumptions:	<p>IMPLEMENTATION AGENCIES AND MEASURES AND OPERATIONAL STRUCTURES AND INSTITUTIONS ARE ESTABLISHED, FULLY RESOURCED AND ARE EFFECTIVELY OPERATIONAL.</p> <p>POLITICAL STABILITY AND CO-OPERATION BETWEEN ENTITIES CONTINUES IN COUNTRY.</p> <p>INTERNATIONAL AGREEMENTS ARE IN PLACE TO RE-ESTABLISH SAVA AND DANUBE RIVER OPERATIONS.</p> <p>CONSULTANT, DE-MINING AND CONSTRUCTION RESOURCES ARE AVAILABLE TO UNDERTAKE THE PROJECT PREPARATION AND CONSTRUCTION PHASES RESPECTIVELY.</p>
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ELEMENTS OF REGIONAL COOPERATION

Regional dimension	<p>In which way(s) this project is fostering regional cooperation?</p> <p><i>The Port becomes an integral part of the river transportation system, and connects Pan-European corridor VII and thus stimulates economical development of the region.</i></p>
<p>In which way this project can enhance Sava Commission</p> <p>- basic, - functional, - instrumental</p> <p>role/function as here described</p>	<ul style="list-style-type: none"> • Basic: to trigger political dialogue and confidence – building measures; • Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence; • Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.
<p>Which instrument/ decision Sava Commission could take in order to: Advance/accompany/complement the project</p>	<p><i>The Commission can adopt the regulations of the international navigation regime and safety, and undertake procedures for issuing of different legal documents for these facilities and for accompanying activities.</i></p>
<p>Contribution of the countries (completed/planned)</p>	<p><i>Master Plan for Transport in B&H</i></p>
<p>International support (received/pledged)</p>	<p><i>None</i></p>
<p>International support needed</p>	<p><i>5,5 million EURO</i></p>
<p>Which areas of cooperation as listed in FASRB will project include</p>	<p><i>Project will include:</i></p> <ul style="list-style-type: none"> - <i>general cooperation principles, and</i> - <i>area concerning navigation regime from FASRB</i>
<p>Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)</p>	<p style="text-align: center;"><i>////</i></p>

ELEMENTS OF REGIONAL COOPERATION

Regional dimension	The project will have strong impact on regional economy development as the logistic center will concentrate the transport demand of the Region at the one point. This can lead to minimizing the transport costs and improving the transport quality.
In which way this project can enhance Sava Commission -basic, -functional, -instrumental role/function as here described	<ul style="list-style-type: none"> √ Basic √ Functional √ Instrumental
Which instrument/ decision Sava Commission could take in order to: Advance/accompany/complement the project	The Sava Commission could encourage the modal shift of the transport specially the role of the inland waterway transport in achieving this goal.
Contribution of the countries (completed/planned)	Contribution of the neighboring countries is welcomed through private/public partnership especially in the port operations through concession model during the project and after that during the exploitation.
International support (received/pledged)	No
International support needed	35 mil. €
Which areas of cooperation as listed in FASRB will project include	Project will include cooperation in the Area of Regime of Navigation as listed in Article 10 of FASRB
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	

PROJECT FICHE

Project No: 7	Project Sector: Water Management				
Project Name:	Revision and Improvement of the Existing Flood Control Systems				
Nature Project:	New	Rehabilitatio n	Upgra d e	Other	
Location:	Sava River Basin (Slovenia, Croatia, BiH and Yugoslavia)				
Status of Project:	Identificatio n	Plannin g	Study	Design	Pre- Procurement
Project Objectives:	Joint prevention of floods				
Project Description:	Existing flood control systems for four countries are not adequate, they are not linked. In order to develop and harmonize flood control in Sava River Basin establishment of The Joint Plan for unique harmonized flood control is needed. An adequate revision of existing systems and water forecast in four countries within SRB is the basis for the improvement of the present situation, realization of The Joint Flood Control Plan and manuals for functions of reservoirs and retentions				
Estimated Investment Cost (EURO)	2.000,000EUR				
Expected Benefits:	Mitigation of flood damages and implementation of emergency measures				
Existing Reports and activities:	<i>Title:</i> _____ Author: ICPDR (WM/EG and APC/EG) _____ <i>Date:</i> _____ <i>Source:</i> _____				
Implementation Program (years)	Preparation :	Expropriatio n:	Constructio n:	TOTAL: 2 years	
Implementation Authority:	International Sava River Basin Commission				

Implementation Risks and Assumptions:	No
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ELEMENTS OF REGIONAL COOPERATION

Regional dimension	In which way(s) this project is fostering regional cooperation? Improvement flood and pollution management in Sava River Basin
<i>In which way this project can enhance Sava Commission</i> -basic, -functional, -instrumental role/function as here described	X Basic: to trigger political dialogue and confidence – building measures; X Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence building measures; X Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.
Which instrument/ decision Sava Commission could take in order to: ADVANCE/ACCOMPLISH/COMPLETE THE PROJECT	Use all instruments as listed in Article 4 of Statute of International Sava River Basin Commission
Contribution of the countries (completed/planned)	Slovenia, Croatia, Yugoslavia and BiH human resources and location for installation of equipment
International support (received/pledged)	None
International support needed	Technical and financial assistance (Hardware, software and training)
Which areas of cooperation as listed in FASRB will project include	Article 2c
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	No

PROJECT FICHE

Project No:	Project Sector: Water management				
Project Name: 8	Improvement of the monitoring system of water quantity and quality parameters				
Nature Project:	New	Rehabilitatio n	Upgrade	Other	
Location:	Sava River Basin (BiH and Yugoslavia)				
Status of Project:	Identificatio n	Planning	Study	Design	Pre-Procurement
Project Objectives:	Establishing and operating the Joint Programme for the monitoring of water status within Sava River Basin district				
Project Description:	Existing monitoring, laboratory and information managements in four countries are not linked and harmonized. In order to establish and implement Joint Programme for the monitoring of water status within SRB, existing monitoring systems of water quantity and quality parameters have to be improved and unit in one, harmonized system. This system has to be developed in accordance with the system being developed in the Danube River Basin. To achieve that an adequate hardware and software are necessary.				
Estimated Investment Cost (EURO)	1 000 000 EUR				
Expected Benefits:	Implementation of the Programme of measures for preservation, protection and improvement of aquatic ecosystem within Sava River Basin				
Existing Reports and activities:	<i>Title:</i> _____ <i>Author:</i> ICPDR (MLIM/Expert group) _____ <i>Date:</i> _____ <i>Source:</i> _____				
Implementation Program (years)	Preparation : 6 months	Expropriatio n: 	Constructio n: 12 months	TOTAL:	
Implementatio	International Sava River Basin Commission				

Authority:	
Implementation Risks and Assumptions:	No

ELEMENTS OF REGIONAL COOPERATION

Regional dimension	In which way(s) this project is fostering regional cooperation? In improving monitoring, laboratory and information management within SRB
<i>In which way this project can enhance Sava Commission</i> -basic, -functional, -instrumental role/function as here described	X Basic: to trigger political dialogue and confidence - building measures; X Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence building measures; X Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.
Which instrument/ decision Sava Commission could take in order to: ADVANCE/ACCOMPANY/COMPLETE THE PROJECT	Use all instruments as listed in Article 4 of Statute of International Sava River Basin Commission
Contribution of the countries (completed/planned)	Slovenia and Croatia Know How from existing practise, BiH and Yugoslavia human resources and locations for insstalation and aquipment
International support (received/pledged)	None
International support needed	Technical and financial assistance (Hardware, software and training)
Which areas of cooperation as listed in FASRB will project include	Article 2 b
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	No

PROJECT FICHE

Project No: 9	Project Sector: Water Management				
Project Name:	Development Strategy for River Basin Management Plan in Sava River Basin				
Nature Project:	New	Rehabilitatio n	Upgra d e	Other	
Location:	Sava River Basin (Slovenia, Croatia, BiH and Yugoslavia)				
Status of Project:	Identificatio n	Plannin g	Study	Design	Pre- Procurement
Project Objectives:	Establishing and operating the Joint Strategy for the RBMP within Sava River Basin district				
Project Description:					
Estimated Investment Cost (EURO)					
Expected Benefits:					
Existing Reports and activities:	<i>Title:</i> _____ Author: ICPDR (WM/EG) and GEF _____ <i>Date:</i> _____ <i>Source:</i> _____				
Implementation Program (years)	Preparation :	Expropriatio n:	Constructio n:	TOTAL:	
Implementation Authority:	International Sava River Basin Commission				

Implementation Risks and Assumptions:	No
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ELEMENTS OF REGIONAL COOPERATION

Regional dimension	In which way(s) this project is fostering regional cooperation? Establishment of joint water management in Sava River Basin district
<i>In which way this project can enhance Sava Commission</i> -basic, -functional, -instrumental role/function as here described	X Basic: to trigger political dialogue and confidence – building measures; X Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence building measures; X Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.
Which instrument/decision Sava Commission could take in order to: ADVANCE/ACCOMPANY/COMPLETE THE PROJECT	Use all instruments as listed in Article 4 of Statute of International Sava River Basin Commission
Contribution of the countries (completed/planned)	
International support (received/pledged)	
International support needed	Technical and financial assistance (Hardware, software and training)
Which areas of cooperation as listed in FASRB will project include	Article 2c and 12
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	No

PROJECT FICHE

Project No: 10	Project Sector: WATER MANAGEMENT				
Project Name:	Development of Tools for Information Sharing for the SRB				
Nature Project:	New	Rehabilitation	Upgrade	Other	
Location:	Sava River Basin (Slovenia, Croatia, BiH i Yugoslavia)				
Status of Project:	Identification	Planning	Study	Design	Pre-Procurement
Project Objectives:	to provide support to the implementation of the Framework Directive by ensuring a smooth flow of information between countries to increase post-war remediation and improve international framework for public safety by short-term and long-term activities related to the water management, monitoring, water quality protection and reduction of pollution of the Sava River Basin, as well as flood control.				
Project Description:	<p>The River Basin Management Planning and coordination for establishment warning system within the Sava River Basin needs a specific understanding and links between involved countries. Development of coherent and common information system is the first stage for integrate and harmonize approach to produce a unique management plan for the SRB. Three main levels of information sharing can be identified: Sava river basin level, bilateral / multilateral level and national level.</p> <p>The first step in setting up this project is to conduct a needs assessments for each country and after that, for all community. The identified needs will be grouped thematically and these groups will be used to define needed applications as realistic and reasonable tools for the coordination in SRBD.</p> <p>The results will be Joint Programme and Plan for selection of the transboundary information issues, selection of the best applicable practice and coordination for networking in exchanging information on all levels for short-term and long-term activities related to the warning system, flood control, monitoring, water quality protection and reduction of pollution, and for developing training programmes for water managers in appropriate technique applied to the countries, and actions for educating the public.</p>				
Estimated Investment Cost (EURO)	1.000.000				

Expected Benefits:	a success in shared basin management				
Existing Reports and activities:	<i>Title:</i> _____ <i>Author:</i> ICPDR _____ <i>Date:</i> _____ <i>Source:</i> _____				
Implementation Program (years)	Preparation :	Expropriatio n:	Constructio n:	TOTAL: 12 months	
Implementation Authority:	International Sava River Basin Commission				
Implementation Risks and Assumptions:	No				

ELEMENTS OF REGIONAL COOPERATION

Regional dimension	In which way(s) this project is fostering regional cooperation? Improving regional cooperation
<i>In which way this project can enhance Sava Commission</i> -basic, -functional, -instrumental role/function as here described	<p style="text-align: center;">X Basic: to trigger political dialogue and confidence - building measures;</p> <p style="text-align: center;">X Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence building measures;</p> <p>X Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.</p>
Which instrument/ decision Sava Commission could take in order to: ADVANCE/ACCOMPANY/COMPLETE THE PROJECT	Use all instruments as listed in article 4 of Statute of International Sava River Basin Commission
Contribution of the countries (completed/planned)	Work of their experts
International support (received/pledged)	none
International support needed	financial assistance and training
Which areas of cooperation as listed in FASRB will project include	Article 2b i 2c
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	no

PROJECT FICHE

Project No: 11	Project Sector: Water Management				
Project Name:	Establishment of the Joint Warning System for Flood Control and Accidental Pollution				
Nature Project:	New	Rehabilitatio n	Upgra d e	Other	
Location:	Sava River Basin (Slovenia, Croatia, BiH and Yugoslavia)				
Status of Project:	Identificatio n	Plannin g	Study	Design	Pre- Procurement
Project Objectives:	Prevention of floods and accidental pollution				
Project Description:	Existing warning systems for four countries are not adequate, they are not linked and harmonized. In order to improve and harmonize the system in Sava River Basin establishment of unique harmonized system is needed. This harmonized system has to be harmonized with the system being developed in the Danube River Basin. To achieve that an adequate hardware and software is necessary.				
Estimated Investment Cost (EURO)	500,000EUR				
Expected Benefits:	Mitigation of flood damages and implementation of emergency measures				
Existing Reports and activities:	<i>Title:</i> _____ Author: ICPDR (APC/EG) _____ <i>Date:</i> _____ <i>Source:</i> _____				
Implementation Program (years)	Preparation : 6 months	Expropriatio n: n:	Constructio n: 6 months	TOTAL:	
Implementation	International Sava River Basin Commission				

Authority:	
Implementation Risks and Assumptions:	No

ELEMENTS OF REGIONAL COOPERATION

Regional dimension	In which way(s) this project is fostering regional cooperation? Improvement flood and pollution management in Sava River Basin
<i>In which way this project can enhance Sava Commission</i> -basic, -functional, -instrumental role/function as here described	X Basic: to trigger political dialogue and confidence – building measures; X Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence building measures; X Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.
Which instrument/decision Sava Commission could take in order to: ADVANCE/ACCOMPANY/COMPLETE THE PROJECT	Use all instruments as listed in Article 4 of Statute of International Sava River Basin Commission
Contribution of the countries (completed/planned)	Slovenia and Croatia Know How from existing practice, Yugoslavia and BiH human resources and location for installation of equipment
International support (received/pledged)	None
International support needed	Technical and financial assistance (Hardware, software and training)
Which areas of cooperation as listed in FASRB will project include	Article 2c
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	No

PROJECT FICHE

Project No: 12	Project Sector: Water management				
Project Name:	Implementation of WFD – Testing guidance				
Nature Project:	New	Rehabilitatio n	Upgrade	Other	
Location:	Sub basins of Sava River Basin in Slovenia, Croatia, BiH and Yugoslavia				
Status of Project:	Identificatio n	Planning	Study	Design	Pre- Procurement
Project Objectives:	Harmonization of methodology for specific issues according WFD for all Sava River Basin				
Project Description:	<p>Four riparian states of the Sava River Basin - Bosnia and Herzegovina, Republic of Croatia, Republic of Slovenia and Federal Republic of Yugoslavia signed Framework agreement on Sava River Basin. According that agreement the Parties shall cooperate in the process of the creation and realization of joint RBM plan in accordance with WFD. To help this activities CARDS regional program 2003 proposed regional project "Implementation of WFD in Sava River Basin".</p> <p>In order to create joint RBMP and implement WFD Parties have to harmonize methodology for specific issues according WFD. According the EU Strategy for WFD implementation, as results of working groups are following guidance:</p> <ul style="list-style-type: none"> -Guidance on the analyses of pressures and impacts -Guidance on the designation of heavily modified water bodies -Classification and reference condition of rivers and lakes -Guidance for establishing the inter calibration network and inter calibration exercise -Guidance on economic analysis -Guidance on monitoring -Tools on assessment and classification of groundwater -Best practice in river basin planning -Guidance on GIS <p>Scope of this project is to test some of these guidance on 4 pilot areas on the territory of BIH, FRY, Slovenia and Croatia in the Sava river basin. In further development of the project countries will agreed which guidance and how many of them will be tested.</p>				

	Project will include following phases: Phase 1. – training people who will work on testing Phase 2. –testing and exchange of experience through workshops Phase 3. –agreement of common methodology for implementation of WFD on Sava River Basin				
Estimated Investment Cost (EURO)	2 500 000 EUR				
Expected Benefits:	Improvement of cooperation and harmonized methodology				
Existing Reports and activities:	<i>Title:</i> _____ <i>Author: ICPDR (RBM/Expert group)</i> _____ <i>Date:</i> _____ <i>Source:</i> _____				
Implementation Program (years)	Preparation : 1 year	Expropriatio n: n:	Constructio n: 1 year	TOTAL:	2 years
Implementation Authority:	International Sava River Basin Commission				
Implementation Risks and Assumptions:	Human capacity				

ELEMENTS OF REGIONAL COOPERATION

Regional dimension	In which way(s) this project is fostering regional cooperation? Development of common methodology for implementation of WFD in SRB through common trainings, workshops and on the final phase agreement on common methodology for implementation of WFD in SRB
<i>In which way this project can enhance Sava Commission</i> -basic, -functional, -instrumental role/function here described as	<input checked="" type="checkbox"/> Basic: to trigger political dialogue and confidence - building measures; <input checked="" type="checkbox"/> Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence building measures; <input checked="" type="checkbox"/> Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.
Which instrument/ Decision Sava Commission could take in order to: ADVANCE/ACCOMPANY/COMPLEMENT THE PROJECT	Use all instruments as listed in Article 4 of Statute of International Sava River Basin Commission
Contribution of the countries (completed/planned)	Human capacity, logistic
International support (received/pledged)	Pledged - CARDS REGIONAL 2003 , 2 500 000 EURO
International support needed	Technical and financial assistance (consultation, workshops and trainings)
Which areas of cooperation as listed in FASRB will project include	Article 2 point 2.
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	No

PROJECT FICHE

Project No: 14	Project Sector: Flood protection
Project Name:	RECONSTRUCTION OF THE LEVEE ON THE RIGHT BANK OF THE RIVER SAVA
Nature of Project:	REHABILITATION
Location:	Sabac-Cevrntija (from 107+900km to 129+800km) i.e. 21,7km
Status of Project:	Identification
Project Objectives:	<p><i>Macva region, which is marked by the right banks of the rivers Drina and Sava, is subjected to floods caused by water flows from the Cer mountain and the water flows from the riverbeds of the Drina and the Sava.</i></p> <p>Land-reclamation systems with channels and pumping stations as well as the levees by the rivers Drina and Sava have been developed for the flood protection of this area. The levees provide a different level of protection, considering the fact that they were built in different periods of time.</p> <p>Equalization of the flood protection level in the surrounding area will be carried out through this reconstruction project of the existing levees.</p>
Project Description:	<p>The rivers Drina and Sava are a potential danger to Macva region, its cities, settlements, industrial facilities and agricultural areas. The course length of the Sava around Macva is approximately 100km, and the course length of the Drina is 30km.</p> <p>Along this section the levees of different security level, over 100km in length were built in different periods of time. 50km of its full length do not provide necessary protection of the area from the great waters of 1% probability.</p> <p>It is necessary to carry out the reconstruction of the sections from km 2+050 to 6+100; from 6+800 to 9+500 and from 9+500 to 23+342, full length of these sections being 22km.</p> <p>Reconstruction includes raising the levee to a necessary height level as well as enlargement of dimension and mass by clayey and sandy materials.</p>
ESTIMATED Investment Cost (EURO)	11.935 000 EUR
Expected Benefits:	Higher level of flood protection of infrastructure and population
Existing Reports:	TITLE: RECONSTRUCTION OF THE LEVEE

	Author: Institute "J. Cerni"-Belgrade and Authority Management "Podrinje"-Sabac Date: 1989/90 Source:
Implementation Programme (years)	Preparation: Expropriation: Construction: Total: 11.935 000EUR
Implementation Authority:	LICENSE EXISTS
Implementation Risks and Assumptions:	NO RISKS

ELEMENTS OF REGIONAL COOPERATION

Regional dimension	In which way(s) this project is fostering regional cooperation? In improving management for flood protection within SRB
<i>In which way this project can enhance Sava Commission</i> -basic, -functional, -instrumental role/function as here described	X Basic: to trigger political dialogue and confidence - building measures; X Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence building measures; X Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.
Which instrument/ decision Sava Commission could take in order to: ADVANCE/ACCOMPANY/COMPLETE THE PROJECT	Use all instruments as listed in Article 4 of Statute of International Sava River Basin Commission
Contribution of the countries (completed/planned)	Yugoslavia Know How from existing practice and human resources
International support (received/pledged)	None
International support needed	financial assistance and training
Which areas of cooperation as listed in FASRB will project include	Article 2 b) and 2 c)
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	No

PROJECT FICHE

Project No: 15	Project Sector: Flood protection
Project Name:	RECONSTRUCTION OF THE LEVEE ON THE RIGHT BANK OF THE RIVER SAVA
Nature of Project:	REHABILITATION
Location:	Dragojevac-Orasac (from 87+500km to 95+100km) i.e.7,6km
Status of Project:	Identification
Project Objectives:	<p><i>Macva region, which is marked by the right banks of the rivers Drina and Sava, is subjected to floods caused by water flows from the Cer mountain and the water flows from the riverbeds of the Drina and the Sava.</i></p> <p>Land-reclamation systems with channels and pumping stations as well as the levees by the rivers Drina and Sava have been developed for the flood protection of this area. The levees provide a different level of protection, considering the fact that they were built in different periods of time.</p> <p>Equalization of the flood protection level in the surrounding area will be carried out through this reconstruction project of the existing levees.</p>
Project Description:	<p>The rivers Drina and Sava are a potential danger to Macva region, its cities, settlements, industrial facilities and agricultural areas. The course length of the Sava around Macva is approximately 100km, and the course length of the Drina is 30km.</p> <p>Along this section the levees of different security level, over 100km in length were built in different periods of time. 50km of its full length do not provide necessary protection of the area from the great waters of 1% probability.</p> <p>The levee section from the flow-in of the stream Brekovac to Mrdjenovac, the length of which being approximately 10km consists of two subsections: Brekovac-Ladjenik at the length of 3,4km and Ladjenik-Mrdjenovac at the length of 6,5km.</p> <p>Reconstruction includes raising the levee to a necessary height level as well as increase in dimension and mass by clayey and sandy materials.</p>
ESTIMATED Investment Cost (EURO)	2.280 000 EUR
Expected Benefits:	Higher level of flood protection of infrastructure and population in the Sava basin

Existing Reports:	TITLE: RECONSTRUCTION OF THE LEVEE Author: Institute "J. Cerni"-Belgrade and Authority Management "Podrinje"-Sabac Date: 1989/90 Source:
Implementation Programme (years)	Preparation: Expropriation: Construction: Total: 2.280 000 EUR
Implementation Authority:	LICENSE EXISTS
Implementation Risks and Assumptions:	NO RISKS

ELEMENTS OF REGIONAL COOPERATION

Regional dimension	In which way(s) this project is fostering regional cooperation? In improving management for flood protection within SRB
<i>In which way this project can enhance Sava Commission</i> -basic, -functional, -instrumental role/function as here described	X Basic: to trigger political dialogue and confidence - building measures; X Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence building measures; X Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.
Which instrument/ decision Sava Commission could take in order to: ADVANCE/ACCOMPANY/COMPLETE THE PROJECT	Use all instruments as listed in Article 4 of Statute of International Sava River Basin Commission
Contribution of the countries (completed/planned)	Yugoslavia Know How from existing practice and human resources
International support (received/pledged)	None
International support needed	financial assistance and training
Which areas of cooperation as listed in FASRB will project include	Article 2 b) and 2 c)
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	No

PROJECT FICHE

Project No: 16	Project Sector: Flood protection
Project Name:	RECONSTRUCTION OF THE LEVEE ON THE RIGHT BANK OF THE RIVERS SAVA AND DRINA
Nature of Project:	REHABILITATION
Location:	Banov Brod-Crna Bara
Status of Project:	Identification
Project Objectives:	<p><i>Macva region, which is marked by the right banks of the rivers Drina and Sava, is subjected to floods caused by water flows from the Cer mountain and the water flows from the riverbeds of the Drina and the Sava.</i></p> <p>Land-reclamation systems with channels and pumping stations as well as the levees by the rivers Drina and Sava have been developed for the flood protection of this area. The levees provide a different level of protection, considering the fact that they were built in different periods of time.</p> <p>Equalization of the flood protection level in the surrounding area will be carried out through this reconstruction project of the existing levees.</p>
Project Description:	<p>The rivers Drina and Sava are a potential danger to Macva region, its cities, settlements, industrial facilities and agricultural areas. The course length of the Sava around Macva is approximately 100km, and the course length of the Drina is 30km.</p> <p>Along this section the levees of different security level, over 100km in length were built in different periods of time. 50km of its full length do not provide necessary protection of the area from the great waters of 1% probability.</p> <p>The levee section is in the mouth zone of the river Drina into Sava, the length of which being 11km, i.e. 3,8km along the Sava and 7,2km along the Drina. Reconstruction includes raising the levee to a necessary height level as well as enlargement of dimension and mass by clayey and sandy materials.</p>
ESTIMATED Investment Cost (EURO)	<p>River Sava (1.650 000 EUR) <u>River Drina (3.430 000 EUR)</u> 5.080 00 EUR</p>
Expected Benefits:	Higher level of flood protection of infrastructure and population
Existing Reports:	<p>TITLE: RECONSTRUCTION OF THE LEVEE</p> <p>Author: Institute "J. Cerni"-Belgrade and "Energoprojekt" Date:</p>

	1989/90 Source:
Implementation Programme (years)	Preparation: Expropriation: Construction: Total: 5.080 00 EUR
Implementation Authority:	OBTAINING OF LICENSE IS UNDER WAY
Implementation Risks and Assumptions:	NO RISKS

ELEMENTS OF REGIONAL COOPERATION

Regional dimension	In which way(s) this project is fostering regional cooperation? In improving management for flood protection within SRB
<i>In which way this project can enhance Sava Commission</i> -basic, -functional, -instrumental role/function as here described	X Basic: to trigger political dialogue and confidence - building measures; X Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence building measures; X Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.
Which instrument/ decision Sava Commission could take in order to: ADVANCE/ACCOMPANY/COMPLETE THE PROJECT	Use all instruments as listed in Article 4 of Statute of International Sava River Basin Commission
Contribution of the countries (completed/planned)	BiH and Yugoslavia Know How from existing practice and human resources
International support (received/pledged)	None
International support needed	financial assistance and training
Which areas of cooperation as listed in FASRB will project include	Article 2 b) and 2 c)
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	No

PROJECT FICHE

Project No: 17	Project Sector: <i>Defense from flooding</i>				
Project Name:	REHABILITATION AND RECONSTRUCTION OF SAVA EMBANKMENT ON BOSNIA AND HERZEGOVINA TERRITORY				
Nature Project:	New	Rehabilitation ✓	Upgrad e	Other	
Location:	BOSNIA AND HERZEGOVINA (REPUBLIC OF SRPSKA)				
Status of Project:	Identification ✓	Planning	Study	Design	Pre- Procurement
Project Objectives:	<p><i>2.500 km² of territory in Bosnia and Herzegovina was endangered by flooding with outside and inside waters, which makes 4% of B&H territory, and respectively 60% of all valleys and plains in the territory of Bosnia and Herzegovina. The biggest area is around Sava river. With this project proposal we will try to rehabilitate and repair the system for protection from waters on Sava river which was damaged during the war activities and neglected due to lack of funds for maintenance.</i></p>				
Project Description:	<p><i>The river Sava represents the greatest flooding risk in the Republic of Srpska. Significant measures have been undertaken in order to control flooding of Sava river. Defense systems have been designed for flooding occurrence once in hundred years. All together, defense from flooding is one of the best organized sub-sectors in the Republic of Srpska.</i></p> <p><i>For protection from flooding along Sava river various passive protective measures have been implemented in a form of embankments in the total length 280,5 km (204 km in Republic of Srpska). For protection from precipitation waters drain channels have been constructed in the length of 240 km (146 km in Republic of Srpska). For drainage of surface waters a network of collective channels have been constructed in the total length of 1.290 km (1.041 km in Republic of Srpska). This system contains 24 pump stations (21 in Republic of Srpska) for drainage of water into Sava river. The total capacity of the pump stations in the Republic of Srpska is around 108 m³/s.</i></p> <p><i>The facilities for protection from flooding initiated large material investments not only in defended areas but also in the wider region. However, during the war and post-war period due to un-regular maintenance and war damages, the degree of protection is significantly reduced and in some areas this function of the protection system is completely destroyed.</i></p> <p><i>For revitalization and rehabilitation of the system for protection from waters survey of the system has been carried out and the funds necessary for rehabilitation have been estimated.</i></p>				

Estimated Investment Cost (Euro):(2001 prices)	<i>Rehabilitation of embankment – extension of the embankment height, rehabilitation of the landslide and the embankment crest - 2.100.000,00 Euro</i> <i>Rehabilitation of pump stations - 1.700.000,00 Euro</i>				
Expected Benefits:	<i>Protection of 180.000 ha area and value of the facilities more than 2.000.000,00 Euro</i>				
Existing Reports:	Title:	Information on the present situation with the facilities and the system for protection from flooding			
	Author:	Ministry of Agriculture, Forestry and Water Management of the Republic of Srpska and the Federation of Bosnia and Herzegovina			
	Date:	2002. year			
	Source:	Ministry of Agriculture, Forestry and Water Management of the Republic of Srpska and the Federation of Bosnia and Herzegovina			
Implementation Programme (years):	Preparation: 1	Expropriation:	Construction: 2	Total: 3	
Implementation Authority:	<i>Republic Directorate for Waters of the Republic of Srpska</i>				
Implementation Risks and Assumptions:					

ELEMENTS OF REGIONAL COOPERATION

Regional dimension	In which way(s) this project is fostering regional cooperation? <i>Regional significance – regulation of the river flow and navigation.</i>
In which way this project can enhance Sava Commission - basic , - functional , - instrumental role/function as here described	<ul style="list-style-type: none"> • <u>Basic: to trigger political dialogue and confidence – building measures;</u> • Functional: to devise and enhance the operational advantage brought about by political dialogue and confidence; • Instrumental: to link the devised programs in line with EU integration initiatives and the adoption of international convention and standards.
Which instrument/ decision Sava Commission could take in order to: Advance/accompany/ complement the project	<i>Very important support of the Commission because it is a very complex problem:</i> <ul style="list-style-type: none"> - demining, - rehabilitation, - reconstruction.
Contribution of the countries (completed/planned)	<i>Regional water-managing companies are working on rehabilitation, but there are a lot of problems with the mine contaminated areas; continuation of activities.</i>
International support (received/pledged)	<i>Promised and partly implemented works in the area of demining; USAID have promised financial support for rehabilitation of facilities.</i>
International support needed	
Which areas of cooperation as listed in FASRB will project include	<i>Navigation and integrated management of the river basin.</i>
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	<i>The works refer to rehabilitation of the existing facilities without whose functionality there are no conditions for the river basin managing.</i>

PROJECT FICHE

Project N°: 18	Project sector: flood protection <input type="checkbox"/> Road <input type="checkbox"/> Rail <input type="checkbox"/> Ports <input checked="" type="checkbox"/> Waterways <input type="checkbox"/> Aviation <input type="checkbox"/> Inter-modal
Project Name:	Project Sava-upgrade of Central Sava Basin flood protection system
Nature of Project:	<input type="checkbox"/> New <input checked="" type="checkbox"/> Rehabilitation <input checked="" type="checkbox"/> Upgrade <input type="checkbox"/> Other
Location:	region Srednja Posavina: flood storage Lonjsko polje, right bank of the river Sava between towns Zagreb and Sisak, area of town Karlovac in Kupa flood protection subsystem
Status of Project:	<input type="checkbox"/> Identification <input checked="" type="checkbox"/> Planning <input checked="" type="checkbox"/> Study <input checked="" type="checkbox"/> Design <input type="checkbox"/> Pre-Procurement
Project Objectives:	Achieve higher level of flood protection for towns, infrastructures and agricultural land in central Sava basin what will also produce positive effects on the downstream water regime. These will create preconditions for agricultural development and reduce the negative population migrations.
Project Description:	This Project propose continuation construction of Central Sava Basin flood protection system which is created in the Study on Regulation and Menagment of the Sava River, 1972, worked out by Polytechna-Hydroprojekt, Prague, and Carlo Lotti&Co. ,Rome, with the financial assistance of UNDP. The basic principle in flood protection in the Sava River Project is that no measures taken should adversely affect the water regime in the downstream part of the basin. The realization of the Project is planned in phases because of its big dimension and size of investment. In spite of the big amount of works what have to be done until the whole investment will be finished (at the present time it is estimate that about 40% is done) in this Project are propose only priority works: structures connected with water storage Lonjsko polje (dikes and weir Trebež II), dikes on the right bank of the Sava between Zageb and Sisak and construction structures in Kupa flood protection subsystem (weirs, dikes). The investment needed for these priority works amounts cca 130 mil. EUR. Some propose structures have no project documentation and for some of them the project documentation is done on the various level.
Estimated Investment Costs:	130 mil. EUR

Expected Benefits:	direct benefit like diminish damages of flood and indirect social benefits
Existing Reports:	Project Sava, Croatian waters, 1998.
Implementation Programme (years):	Preparation: Expropriation: Construction: TOTAL: 4
Implementation Authority:	Croatian Waters
Implementation Risks and Assumptions:	Implementation agencies and operational structures and institutions are established, fully resourced and are effectively operational. Central Sava Basin flood protection system has high priority in water resources management plans.

ELEMENTS OF REGIONAL COOPERATION

Regional dimension	The regional dimension of the project we see in controlling water regime of Sava river in the central basin and the whole downstream flow because the proposed structures are part of the only water storages for flood protection in Sava basin.
In which way this project can enhance Sava Commission -basic, -functional, -instrumental role/function as here described	✓ Basic ✓ Functional ✓ Instrumental
Which instrument/ decision Sava Commission could take in order to: Advance/accompany/complement the project	Use all instruments as listed in Article 4 of Statute of International Sava River Basin Commission.
Contribution of the countries (completed/planned)	identification and planning documentation, various level of project documentation
International support (received/pledged)	No/This Project was the base for loan of World Bank
International support needed	financial support, claim for loan of CEB (22 mil. EUR)
Which areas of cooperation as listed in FASRB will project include	Project will include cooperation as listed in Article 11 of FASRB
Additional measures to be taken in accordance with WFD if required (e.g. economic analysis)	No

