

**IPA National Programme 2009 part I**  
**Bosnia and Herzegovina**  
**Fiche 4 - "Environment"**

**1. Basic information**

**1.1 CRIS Number:** 2009/021-333

**1.2 Title:** Rehabilitation and construction of the water supply and sewerage collection infrastructure in BiH

**1.3 ELARG Statistical code:** 02.27 Economic Criteria/Environment

**1.4 Location:** Bosnia and Herzegovina

**Implementing arrangements:**

**1.5 Contracting Authority:** European Commission

**1.6 Implementing Agency:**

**Component I:** European Investment Bank (EIB) through joint management with the European Commission

**Component II:** European Bank for Reconstruction and Development (EBRD) through joint management with the European Commission

**Component III:** Kreditanstalt für Wiederaufbau (KfW) through indirect centralised management with the European Commission

**1.7 Beneficiary:**

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### **Financing:**

**1.8 Overall cost (VAT excluded)<sup>1</sup>: EUR 169.9 million**

**1.9 EU contribution: EUR 16.5 million**

**1.10 Final date for contracting:** Two years following the date of the conclusion of the Financing Agreement

**1.11 Final date for execution of contracts:** Two years following the end date of contracting

**1.12 Final date for disbursements:** One year following the end date for the execution of contracts

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<sup>1</sup> The total cost of the project should be net of VAT and/or other taxes. Should this not be the case, the amount of VAT and the reasons why it should be considered eligible should be clearly indicated (see Section 7.6)

## **2. Overall Objective and Project Purpose**

### **2.1 Overall Objective:**

To contribute to the alleviation of the current financial and economic crisis by improving health conditions for people living in Bosnia and Herzegovina and increasing protection of the environment from the adverse effects of urban waste water in line with the EU *acquis communautaire*.

### **2.2 Project purpose:**

Improved accessibility to quality drinking water and decreased waste water pollution in 17 municipalities of the BiH.

### **2.3 Link with AP/NPAA / EP/ SAA**

#### ***European Partnership with Bosnia and Herzegovina adopted in 2008***

- Continue work on progressive transposition of the *acquis*, with particular emphasis on waste management, water quality, air quality, nature protection and integrated pollution prevention and control.
- Implement strategic plans, *including investment strategies, and increase investments in environmental infrastructure, with particular emphasis on waste water collection and treatment, drinking water supply and solid waste management.*
- Ensure integration of environmental protection requirements into definition and implementation of other sectoral policies.

#### ***European Partnership Action Plan 2008 (European standards & Sectoral Policies/Environment)***

- Planning and increasing *the investments into infrastructure from the side of the entities*;
- Preparation of master plans for infrastructure investments in the environmental field;
- Preparation of priority list.

#### ***Commitments under the Interim Agreement and SAA (Stabilisation and Association Agreement)***

The Parties shall develop and strengthen their cooperation in the environmental field with the vital task of *halting further degradation and start improving the environmental situation with the aim of sustainable development.*

#### ***BiH 2008 Progress Report***

Some progress can be reported on **water quality**. Bosnia and Herzegovina has started to implement the requirements of the Water Framework Directive by means of the Entity Water Laws. Water agencies have been in operation in the Federation since January 2008.

Implementing legislation for water laws, water fees and harmful and dangerous substances and their maximum levels in surface water have been adopted. However, much of the implementing legislation still needs to be put in place in order to ensure further alignment with the *acquis*. *Untreated discharges of waste water remain a key environmental challenge.*

## **2.4 Link with MIPD 2009-2011**

### **2.3.1.2. Economic Criteria**

#### Expected results and indicators

Softening the impact of the financial and economic crisis: Support for the financial sector, *investments in infrastructure* and strengthening of the roles of economic and financial regulators will maintain economic stability, growth and jobs.

### **2.3.1.3. Ability to assume the obligations of membership**

#### Expected results and indicators

*Environment:* A country-wide Environment Strategy is adopted and implemented. The BiH Environment Agency is established and operational. The alignment of the sector to the environmental *acquis* is advanced. Tools for prioritization of environmental infrastructure investments and determination of measures for environmental protection are operational. Generation of co-financing mechanisms for environmental infrastructure are advanced. *Enhanced investments in environmental infrastructure.*

## **2.5 Link with National Development Plan**

The National Development Plan is currently under development.

## **2.6 Link with national/ sectoral investment plans**

The National Environmental Action Plan (NEAP) was the first document specifically oriented to environmental problems and was adopted by the entity governments of BiH in 2003. The priorities related to the water resource and wastewater management are (by 2020): 1) provision of sufficient quantities of high-quality water for water supply & other needs; 2) protection of water resources; 3) protection from flooding. The planned intervention is in line with NEAP.

The intervention is also in line with the BiH Water Protection Plan that is the strategic document for the implementation of the EU Urban Waste Water Treatment Directive (91/271/EC). It identifies the urban waste water as the main source of pollution of the surface water in BiH.

## **3. Description of project**

### **3.1 Background and justification:**

Bosnia and Herzegovina has started comprehensive reconstruction in the environment sector in both entities with the help of International Financial Institutions (IFIs). For the needs of the environmental infrastructure development in the *water/waste water sector*, the IFIs have allocated significant loan assistance as the needs for investments in the sector are extensive. Although there has been an increase in investments in environmental infrastructure, largely through IFI loans, BiH has limited expertise in the area of project preparation and investment planning, and would therefore have difficulty in accessing pre-accession funds. Therefore, the country should start preparations in accessing these funds as well as to improve donor and IFI funds coordination.

Current intervention, as the part of the anti-crisis package contributes to the alleviation of the current financial and economic crisis by improving living conditions for people in Bosnia and Herzegovina and increasing the positive effect on environment regards to the water quality. The project is to support financially the infrastructure investments of municipalities in the field of environment providing a grant co-financing mechanism with loans extended by IFIs in order to increase the affordability of such investments for municipalities. The funds, being a grant and not reimbursable / subject to interest payments, relieve BiH's debt burden, and also improve the financial rate of return of the projects. Depending on the project the IFIs can use the money to speed up things by spending IPA funds on preparatory activities.

The intervention for IPA 2009 is divided into three components. Component I relates to the rehabilitation and construction of water and waste water infrastructure in selected sites in the Federation of the BiH, Component II relates to the construction of the water supply system and the sewerage network in Bijeljina Municipality in Republika Srpska and the third component contributes to the construction of the sewerage system in Banja Luka in Republika Srpska.

On 5 March 2008 the Steering Committee<sup>2</sup> of the IFI Facilities decided to launch a complementary window to the Infrastructure Project Facility (IPF), the Municipal Window combining grants for capacity building and co-financing with loans to remedy the very low income of the IPA countries which hinder financing of infrastructure projects. The projects will be implemented under joint-management with the EIB, the EBRD and CEB<sup>3</sup>/KfW, - the partner IFIs<sup>4</sup> -, to maximise the leverage effect of grants and loans and to benefit from their expertise in international finance and skill in implementing the European Community objectives in relation to Enlargement. Components I and III of this intervention are part of the IPF-MW program.

### **Component I Rehabilitation and construction of the water and waste water infrastructure in Federation of BiH (EUR 12 million)**

The Federation of Bosnia and Herzegovina suffers serious impacts from underdeveloped water services on public health and the environment, caused by poor infrastructure, strong hydrological interconnection and heavy modification of water bodies, which leaves public water supplies and bathing waters exposed to the effects of industrial pollution and the discharge of untreated water. The water sector is heavily fragmented. Weak governance has left much infrastructure poorly maintained and highly inefficient. Secondary legislation that would enforce limits on pollution and service standards effectively is inadequate.

The Ministry of Finance and the Ministry of Agriculture, Forestry, and Water Management in Federation have identified in coordination with local authorities a number of schemes that rank high in terms of potential public health and environmental impact and provide regional balance, taking into account also the level of project preparation and financial capacity of the Beneficiaries to undertake investment. **The proposed operations under this Project Fiche (EUR 12 million) are part of this bigger investment schema for the water and waste water sector in 15 municipalities<sup>5</sup> in Federation.** As referred the investment needs have been identified already and they relate to improving water supply systems, expanding sewer

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<sup>2</sup> The Steering Committee of the IFI Facilities is a structure set up to manage the Facility programmes SMEFF, MFF, MIF and EEFF combining EU grants with credit lines from the EIB, the EBRD and CEB in association with KfW. The members of the Steering Committee are the Commission and representatives of the IFIs participating in the Facilities.

<sup>3</sup> CEB: Bank of Council of Europe

<sup>4</sup> Please refer to the Project Fiche of the IPF-MW 2008.

<sup>5</sup> Zenica, Zavidovići, Visoko, Olovo, Usora, Doboj Istok, Posušje, Široki Brijeg, Mostar, Velika Kladuša, Bosanski Petrovac, Bosanska Krupa, Orašje, Tomislavgrad

systems and the construction of waste water treatment plants. IPA 2009 contributes to the construction works under the IPF Municipal Window (MW). EUR 12 million grant proposed is complementary to the already committed EUR 5 million under the IPF MW. The investments will improve water service and public health, with a particular focus on reducing waterborne pollution through the collection and treatment of wastewaters that are presently discharged to the environment without treatment. The operation will contribute to meeting BiH needs in relation to future compliance with the EU Environmental Legislation, in particular the EU Urban Waste Water Treatment Directive (91/271/EC) and Drinking Water Directive (98/83/EC).

European Investment Bank (EIB) contributes to the overall schema with EUR 60 million, IPF-Municipal Window contributes indicatively with EUR 5 million, and municipalities own funds or other funds are estimated at this stage to be EUR 60.3 million. Once the final amount will be decided the grant will be disbursed to the Final Beneficiaries, the relevant Municipalities, through the contractual channel existing for the relevant loan agreement, i.e. through the Borrower, the State of BiH, via the Federation of Bosnia Herzegovina. The grant is expected to be used by Final Beneficiaries in compliance with the Bank's procedures in order to accelerate project implementation. The EIB ensures competitive and transparent use of funds by the beneficiaries, the selected Municipalities and their respective water utilities, through the following:

- i) the beneficiary is contractually obligated - through the Finance Contract between the EIB, and the State of BiH as reflected in On-lending Agreements between the Federation of BiH and the Municipalities who are Final Beneficiaries - to purchase goods, secure services and order works for the project in a manner satisfactory to the EIB, upon publication of a general procurement notice in the Official Journal of the European Communities and subsequent advertisements therein for lots above EUR 5 million. These provisions would apply also for the use of the grant. The beneficiary shall ensure that further local advertisement or international enquiries will be used for smaller lots, depending on their size and characteristics. The beneficiary shall prepare tender documents in accordance with good international practice and ensure that in the tendering no discrimination will occur and no local preference will be applied.
- ii) the EIB closely monitors the progress of the project, including the tendering and contracting process and project implementation.

Altogether 11 feasibility studies need to be prepared for the program (out of 15). 7 studies<sup>6</sup> were prepared under the EC Environmental Project Preparation Facility (EPPF) for which IPF-MW grants are proposed. Four additional feasibility studies will be funded by an EIB grant. And for 4 remaining municipalities, it is considered that either sufficient project preparation exists already or that the investments are of a nature as to not require feasibility studies. There are indicative calculations made for investments for each municipality (incl. the land purchase, works and equipment, design, supervision and contingencies). At this stage however it is not possible to specify the exact nature of each specific investment per municipality as the final project structure, what will be done (rehabilitated or reconstructed) will be defined in the agreement that will be signed between the Federal Ministry for Finance and the respective Municipalities.

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<sup>6</sup> Bosanski Petrovac, Orašje, Velika Kladusa, Posusje, Siroki Brijeg, Tomislavgrad, Bosanska Krupa.

Before the Finance Agreement with EIB<sup>7</sup>, all relevant Municipalities in Federation BiH, that were interested for the EIB loan for the Water and Sanitation, indicated preliminarily to the EIB what is the nature of their investments. Majority needs are related to the sanitation field. As there are no wastewater treatment plants in most of the municipalities in FBiH all projects related to the treatment and sewerage systems will be investments for building new infrastructure and schemes. Tomislavgrad expressed their interest in addition to investment to sewerage systems also to the construction and upgrade of the new water supply system. Based on the information provided by the municipalities on their preliminary investments needs, the following summary can be made:

1. Investments related to sewerage systems – Zenica, Orašje, Usora, Visoko, Olovo, Doboj Istok, Mostar.
2. Investments related to sewerage systems and treatment plants – Zavidovići, Doboj Jug, Velika Kladuša, Bosanski Petrovac, Posušje, Široki Brijeg, Bosanska Krupa
3. Investments related to water supply and sewerage - Tomislavgrad

### **Component II Construction of the water supply system and the sewerage network in Bijeljina Municipality (EUR 3.5 million)**

Settlements in northern part of the Bijeljina municipality (along rivers Sava and Drina in area of the mouth: D. Crnjelovo, Gornje Crnjelovo, Batković, Ostojićevo, Velino Selo and Balatun) are supplied with water from individual wells. Ground water quality is very poor, so that nephritis in these settlements is very frequent. Ground water quality from the shallow wells (up to 10 m deep) is very poor due to Sava and Drina rivers impact as well as upstream Bijeljina town waste water discharges into ground waters. Water quality from deep wells (50-100 m deep) is also poor. For this reason connection of these settlements to the Bijeljina town urban water supplying network is the only possible solution.

The proposed operation is a priority investment according to the Water Supply Development Framework Plan for Republic of Srpska, to the Local Environmental Action Plan and the Development Strategy of Municipality Bijeljina. The investment for the water supply system will be implemented in two phases. Phase I is completed in 2007 by the municipality funds (EUR 0.75 million – 50% of pipelines of the main supply line was laid down (23km of pipes 300, 250 and 200mm). The operation proposed under this Project Fiche (EUR 1.5 million) contributes to the implementation of phase II. It is part of the current EBRD program “Bijeljina Water and Waste Water Project” where the municipality co-finances with EUR 4.5 million and the EBRD has provided a credit of EUR 7 million. The feasibility study in English for the investment exists (prepared by the company “Becom & Jacobs”). Also the Environmental Impact Assessment has been completed. Project documentation has been prepared (in local language). The current intervention will complete the construction of the water supply pipelines and the distributive network, incl. the construction the needed house connections. By end of this phase 87% of water supply will be provided by the urban water supply system in the municipality (current 71%). There are plans to connect also the remaining households (13% of total) to the overall water supply network (southern part of the municipality) in the future but since they are not in the nephritic area, they are not considered as part of the priority investment at this stage.

#### *The Sewerage Network in Bijeljina*

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<sup>7</sup> The Finance Agreement with EIB was signed in August 2008 by the Ministry of Finance and Treasury of BiH, by the Federal Ministry of Finance and the Federal Ministry of Agriculture, Forestry, Water Management.

The proposed operation is a priority investment according to the Water Supply Development Framework Plan for Republic of Srpska, to the Local Environmental Action Plan and the Development Strategy of Municipality Bijeljina. The overall sewerage system will be implemented in three phases:

- **I phase** has been completed by municipality funds EUR 3 million (constructed: main sewerage pump station and part of main collector, as precondition for development of town sewerage network).
- **II phase** is ongoing project financed by EBRD credit EUR 7 million, and by the municipal contribution of EUR 4.5 million. EUR 2 million is proposed for IPA 2009. Overall estimated budget for II phase is EUR 17.5 million. II phase constructs the canalization network facilities.
- **III phase** will be implemented after completion of II phase (2011-2013). Estimated budget for III phase is EUR 10 million (EUR 3 million for construction of main collector and EUR 7 million for construction of I phase of waste water treatment plant). Joint financing with the EBRD is planned.

The operation proposed under this Project Fiche (EUR 2 million) contributes to the implementation of phase II.

### **Component III Water supply and Sewerage Collection in Banja Luka (EUR 1 million)**

Problems in the water supply system of Banja Luka are related to the relatively low connection rate of inhabitants. In this context, specifically the settlements with a high population rate of refugees are not yet connected. Only about 20% of the supply networks have been recently built and in the old parts of the network water losses are partly higher than 50%. Only about 40% of the population of Banja Luka are connected to the wastewater collection system and a treatment of wastewater does not yet exist. Specifically the water source (caption of surface water and groundwater) is increasingly endangered by effluents from several settlements at the banks of the river Vrbas.

The proposed operation in this Project Fiche is a priority investment according to the Water Supply Development Framework Plan for Republic of Srpska, by the Local Environmental Action Plan. It contributes to the construction of pumping stations, secondary network and house connections for the sewage system in Banja Luka. The total investment volume for the sewage system is estimated EUR 7.6 million (EUR 1 million is proposed under IPA 2009).

The project is embedded in the larger investment program (total EUR 17.6 million) into the water supply and sewage collection network in Banja Luka. The works include extension and rehabilitation of water supply systems and construction of waste water collection systems, secondary network and house connections. Feasibility studies, including the environmental assessment and (partly) detailed designs are available (partly to be upgraded). KfW cooperates with the Council of Europe Bank (CEB) in providing a loan of EUR 10 million. KfW will sign the loan agreement of EUR 10 million (re-financed by CEB) with Banja Luka and will implement the activities. As referred under Ch. 3.1. of the this project fiche the KfW/CEB is one of the IFI partners to the European Commission to implement the IPF-MW investment projects. At this stage it is proposed by the IPF secretariat that the IPF-MW contributes to this overall investment by EUR 2 million grant. The proposed national IPA 2009 contribution will provide EUR 1 million to complement the IPF-MW funds. The funds deriving from IPF-MW shall be utilised for contributing to the financing of the sewerage system along river Vrbas, incl. installation of pumping stations and the construction of secondary sewer network and house connections.



### **3.2 Assessment of project impact, catalytic effect, sustainability and cross border impact**

This intervention is part of the anti-crisis package. It contributes to the alleviation of the current financial and economic crisis by improving living conditions for people in Bosnia and Herzegovina and increasing the positive effect on environment regards to the water quality. BiH is in the process of approximation of its environmental laws to those of the EU. Although transposition of EU Water Framework Directive is almost completed, further approximation efforts must be made by RS and FBiH regarding the EU Urban Wastewater Treatment Directive (Progress Monitoring 2008 report showing transposition scores of 41% in RS and 35% in FBiH).

This intervention will have a strong positive environmental and public health impact with an overall benefit to quality of life, including due consideration for the ability of the population to pay for services. The improved collection and treatment of wastewaters will reduce pollution of surface and ground waters. In parallel with investment in the collection and treatment of wastewater, investments in efficiency generating measures will be sought with a view to reducing wastage of water and the reduction of power consumption, thus improving overall resource efficiency and reducing atmospheric emissions relating to energy production.

The project increases the affordability of such infrastructure investments for municipalities by providing a grant co-financing mechanism with loans extended by IFIs.

### **3.3 Results and measurable indicators:**

#### **Results and measurable indicators in relation with Component I**

Water supply, sewerage collection systems and waste water treatment plants rehabilitated and constructed in Federation of BiH.

##### **Indicators**

- Infrastructure projects implemented in 15 nominated municipalities in FBiH.

#### **Results and measurable indicators in relation with Component II**

1. Northern part of Bijeljina municipality connected to the urban water supply network.
2. Waste water in Bijeljina municipality is collected and evacuated.

##### **Indicators**

- Increased nr. of households have access to the good quality drinking water in the northern area of Bijeljina municipality.
- Amount of waste water of Bijeljina municipality collected and evacuated.

#### **Results and measurable indicators in relation with Component III**

Sewerage system in Banja Luka along Vrbas river up-graded and operational.

##### **Indicators**

- The incidence of the bacterial contamination (Escherichia Coli) of the raw water captured at Novoselja is decreased<sup>8</sup>.
- Two pumping stations constructed.
- 70% of the houses are covered by the secondary network; this collection service affects 2000 inhabitants in Banja-Luka.

### 3.4 Activities:

**For the component I Rehabilitation and construction of the water and waste water infrastructure in Federation of BiH the indicative list of activities is** (responsible body for overall coordination of the component: Program Management Unit to be established at the Ministry of Agriculture, Forestry, and Water Management FBiH<sup>9</sup>):

1. To rehabilitate, upgrade or construct new

- water resource infrastructure;
- water supply systems;
- extension of drinking water treatment facilities;
- waste water collection systems;
- waste water treatment facilities;
- bulk and consumer metering;
- Water and energy efficiency measures.

The European Commission will conclude a contribution agreement for EUR 12 million with the European Investment Bank (EIB). The contracts for the activities will be deployed according to the rules of the EIB. Implementation of all schemas are indicatively planned to be completed by the end of 2012.

European Investment Bank (EIB) contributes to the overall schema with EUR 60 million credit, IPF-Municipal Window contributes indicatively with EUR 5 million grant. The indicative Financing Plan shows that EUR 60.3 million should be financed in combination of the municipal funds and/or other resources. The figure for the municipal funds is not specified.

**For the Component II Construction of the water supply system and the sewerage network in Bijeljina Municipality the indicative list of activities is** (responsible body for the component: Municipality of Bijeljina and Water and Sewerage utilities AD, Bijeljina):

For water supply sub-component:

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<sup>8</sup> As there is no good baseline data available, the values for this indicator will be set jointly by the relevant authorities (consultant and waterworks) at the beginning of project implementation.

<sup>9</sup> The EIB contractually requires the promoter, the Ministry of Agriculture, Forestry, Water Management FBiH, to establish a suitable staffed Project Management Unit (PMU) within its organisation with the two main activities: (1) interface and coordinate with, as well as support the municipalities in the project implementation; (2) interface with the EIB, including reporting. It is assumed that, with the support of the PMU, the municipalities are able to define their investment plans and also to procure works and equipment, with some specific technical assistance – in particular required with complex equipment such as Waste Water Treatment Plants. In consultation with the Ministry of Finance, the PMU would have a coordination function in order to make the funding available in the appropriate manner. The two Water Agencies of FBiH are likely to be called upon by the PMU in order to contribute to the coordination with and support to the municipalities.

- To construct main transport water supply pipelines in the total length of 11 km.
- To construct distributive network for above-mentioned settlements in total length of 23 km.
- To construct 600 house connections.

For sewerage network sub-component:

- To construct of the Sewerage Collector No.8 in length of 700m.
- To construct of the rain water collector in total length of 700m.
- To construct of the water supply pipeline in total length of 1,400m.
- To construct of the secondary collectors in total length of 7,360m.
- To construct 200 house connections.

The European Commission will conclude a contribution agreement for EUR 3.5 million with the EBRD. The contracts for the activities will be deployed according to the rules of the EBRD. The EBRD is indicatively planning to contract the funds by the end of 2009.

EBRD has provided a credit of EUR 7 million. The BiH local authorities co-finance the activities under the component indicatively by EUR 4.5 million.

**For the component III Water supply and Sewerage Collection in Banja Luka the indicative list of activities is** (responsible body for the component: Municipality of Banja-Luka and Water Utility in Banja-Luka (VODAVOD Banja-Luka)):

- To construct the pumping stations
- To construct house connections and secondary network

The European Commission will conclude a delegation agreement for EUR 1 million with the KfW. The contracts for the activities will be deployed according to the procedures<sup>10</sup> of the KfW. The KfW is indicatively planning to contract the funds by the end of 2009 or beginning of 2010.

KfW provides a loan of EUR 10 million in cooperation with the COB. At this stage it is proposed by the IPF secretariat that the IPF-MW contributes to this by EUR 2 million grant. The BiH local authorities will co-finance the activities under the overall Water Supply and Sewerage Collection Project in Banja Luka indicatively with EUR 0.6 million.

### **3.5 Conditionality and sequencing:**

The contracts for the activities will be deployed according to the rules of the EIB, EBRD and KfW respectively. It is important to have:

- Relevant Ministries (Primary and Secondary Beneficiaries) should dedicate competent staff and other resources required for support of the project(s).
- Technical documentation prepared and revised.

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<sup>10</sup> A compliance assessment of KfW with Art 56(1) of the FR has been completed (see [http://www.cc.cec/dgintranet/europeaid/contracts\\_finances/fin\\_and\\_cont\\_rules/co-financing\\_with\\_nb/index\\_en.htm](http://www.cc.cec/dgintranet/europeaid/contracts_finances/fin_and_cont_rules/co-financing_with_nb/index_en.htm) and note KR 2008/8865 and the KfW procurement procedures will be applied.

- Land acquisition completed.
- Necessary permits and conformities obtained.
- Co-financing mechanism is in place and operational.
- Good co-operation and co-ordination of activities amongst all projects' stakeholders.
- Contracts for execution of the construction works will be concluded in accordance with the procurement schedule.

### **Component I - Rehabilitation and construction of the water and waste water infrastructure in Federation of BiH (EUR 12 million)**

There are indicative calculations made for investments for each municipality (incl. the land purchase, works and equipment, design, supervision and contingencies). The final project structure, what will be done (rehabilitated or reconstructed) will be defined however in the agreement that will be signed between the Federal Ministry for Finance and the respective Municipalities. The issues related to the land acquisition and permits are regulated by the relevant Finance Agreement signed in August 2008 (referred also page 6, chapter 3.1. Component I).

As referred page 10 the Ministry of Agriculture, Forestry, Water Management FBiH will establish a suitable staffed Project Management Unit (PMU) within its organisation with the two main responsibilities (establishment ongoing): (1) interface and coordinate with, as well as support the municipalities in the project implementation; (2) interface with the EIB, including reporting.

The PMU will support the municipalities to define their investment plans and also to procure works and equipment, with some specific technical assistance – in particular required with complex equipment such as Waste Water Treatment Plants. In consultation with the Ministry of Finance, the PMU would have a coordination function in order to make the funding available in the appropriate manner. The two Water Agencies of FBiH are likely to be called upon by the PMU in order to contribute to the coordination with and support to the municipalities.

### **Component II – Construction of the water supply system and the sewerage network in Bijeljina Municipality**

The land of the construction sites is owned by the municipality of Bijeljina. The facilities will be in the same ownership. The feasibility study in English for the investments exists. Also the Environmental Impact Assessment has been completed. Project documentation has been prepared (in local language).

### **Component III – Water supply and Sewerage Collection in Banja Luka the indicative list of activities**

The land of the construction sites are owned by the municipality of Banja Luka. The facilities will be handed over to the Banja Luka water utility (VODAVOD Banja Luka) for operation. Feasibility studies, including the environmental assessment and (partly) detailed designs are available (partly to be upgraded). There are two agreements under preparation at this stage. The Loan and Financing Agreement will be signed between the KfW, the Ministry of Finance and Treasury of BiH, the Ministry of Finance of Republic of Srpska and the municipality of Banja-Luka. A Separate Implementation Agreement to the Loan and Financing Agreement will be signed between KfW and the municipality of Banja-Luka. That agreement will include provisions about the municipality ensuring the availability of a project implementation unit,

land acquisition and all required permits (construction, environmental) before the consulting services will be tendered.

The municipality and the waterworks are ready to start the project; they have provided necessary staffing and working conditions. The municipality will establish a project implementation team within its infrastructure department. The team will embrace the staff of the infrastructure department, the planning department, the legal department and the waterworks VODAKOM Banja Luka. The team will be supported by a consultant in the following working areas:

- Preparation of final design
- Preparation of tender documents
- Tendering and contract award
- Construction supervision

### 3.6 Linked activities

**Infrastructure Project Facility – Municipal Window 2008** The IPF-MW was launched at the Steering Committee<sup>11</sup> of the IFI Facilities on 5th March 2008 with the purpose to combine grants for capacity building and co-finance the loans to remedy the very low income of the IPA countries which hinder financing of infrastructure projects. The EC has contributed to the IPF-MW 2008 in the Western-Balkan region by EUR 24 million, BiH receiving in total EUR 9 million. The proposed intervention (components I and III) will be complementary to the IPF-MW and all the recommendations of the IPF secretariat should be followed<sup>12</sup>.

EUR 5 million under the IPF-MW has been allocated to the project *Water and Sanitation in Federation BiH*. EUR 12 million proposed under IPA 2009 is complementary to these already committed EUR 5 million. For that purpose the European Commission will conclude a contribution agreement for EUR 12 million with the European Investment Bank (EIB)..

The amount of EUR 1 million proposed under IPA 2009 for the KfW for project *Water Supply and Sewerage Collection in Banja Luka*, is complementary to the already committed EUR 2 million under the IPF-MW for the same project. The European Commission will conclude a delegation agreement for EUR 1 million with the KfW.

#### **Additional activities in the municipal water and waste water sector:**

**KfW** finances municipal infrastructure and providing technical assistance to water utilities also in Kakanj, Kostajnica, and Derventa. Apart from Banja Luka, a further project is under preparation in Bihac (wastewater collection and construction of a wastewater treatment plant).

**Multilateral banks:** World Bank is financing projects in Mostar and Banja Luka. EBRD prepares financing of the Plava Voda Project.

**On a bilateral basis** the Swiss Development Cooperation is supporting 17 municipalities in the Una Sana River Basin with regard to water management and environment issues and is

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<sup>11</sup> The Steering Committee of the IFI Facilities is a structure set up to manage the Facility programmes SMEFF, MFF, MIF and EEFF combining EU grants with credit lines from the EIB, the EBRD and CEB in association with KfW. The members of the Steering Committee are the Commission and representatives of the IFIs participating in the Facilities.

<sup>12</sup> The IPF-MW is linked to Technical Assistance provided through IPF (IPF-TA) since it is developed under the same umbrella. Infrastructure projects for which preparation and feasibility studies would have been financed from the IPF-TA may benefit from the IPF-MW.

financing the rehabilitation of the water supply in Prijedor. The Norwegian Development Cooperation is financing water supply projects along the Vrbas river.

### **Additional activities related to the environment sector financed under the IPA Component I in 2007/2008.**

The EU has been the lead donor in reform of the water sector since 1998. Key features of this assistance are the support to integrated water management based on the river basin model and assistance in the preparation and implementation of water legislation based on the EU Water Framework Directive. The main result so far is the completion of harmonised Water Laws in both Entities of BiH. The 2006/07 technical assistance “*BiH Water Management Quality Plan*” addresses the urgent need to prioritise investment in municipal wastewater treatment infrastructure, to protect and improve the quality of surface waters. Other IPA projects in the environment sector are: *EC Strengthening of BiH Environmental Institutions, preparation for pre-accession funds and support to environmental infrastructure development (IPA 2007)*; *Support to BiH Water Policy (IPA 2007)*; *Construction of Sewerage Collectors in Zivinice (IPA 2007)*; *Support to BiH in meeting the requirements of the Energy Community Treaty for South East Europe and Implementing EU Environmental Standards (IPA 2008)*; *Strengthening of Bosnia and Herzegovina Environmental Institutions, Preparation for Pre-accession Funds and Support to Environmental Infrastructure Development – Component II: Construction of the Sewage Waste Water Treatment Plant (WWTP) Medjugorje, Municipality Citluk – Phase II (IPA 2008)*.

For the preparation of the current project fiche there were frequent consultations between the respective IFI offices in Sarajevo and the beneficiary institutions.

### **3.7 Lessons learned**

Experience obtained from past and ongoing infrastructure investments projects from the CARDS programme will be applied as much as possible. Experience gained from such programmes has shown that mutual cooperation with beneficiary partners in BiH and their full commitment during all phases of the project implementation is needed. The self evaluation those projects (e.g. Integrated Border Management (IBM) Infrastructure) conclude that without proactive involvement of the local counterparts failed. Construction of the Sewage collectors in Živinice from IPA 2007 will be the first environmental infrastructure project for BiH that was financed from IPA assistance. It is important that all stakeholders’ incl. relevant ministries take an active role during the project implementation. Apart from the need to have good coordination with IFIs and other stakeholders in the sector to implement the infrastructure projects, it is crucial that relevant designs, feasibility studies, permits etc. are available a priori in order to avoid delays in the project implementation. Lessons Learned from the existing cooperation projects with the IFIs will be taken into account, especially with regards to the revenue collection by the water utilities (sustainability of the water companies).

The key lessons in the environment sector in BiH based on previous interventions can be summarised as follows:

- The institutional set up in the environment sector remains problematic and the needs in the sector are considerable and growing rapidly as the sector seeks to meet the challenges of meeting EU Directives as well as its growth.
- The non-implementation of European Partnership priorities (short-term) has hampered progress in the sector, and the coordination between the State and Entity Governments needs to be improved.

#### 4. Indicative Budget (amounts in EUR)

			SOURCES OF FUNDING									
			TOTAL EXP.RE	IPA COMMUNITY CONTRIBUTION		NATIONAL CONTRIBUTION					Other Sources for Grants	
ACTIVITIES	IB (1)	INV (1)	EUR (a)=(b)+(c)+(d)	EUR (b)	% (2)	Total EUR (c)=(x)+(y)+(z)	% (2)	Central EUR (x)	Regional/ Local EUR (y)	IFIs EUR (z)	EUR (d)	% (2)
Component I	-	X										
contract 1 (contribution agr. with EIB)	-	-	137 300 000 <sup>13</sup>	12 000 000	8.7	60 000 000	43.7			60 000 000	65 300 000 <sup>14</sup>	47.6
Component II	-	X										
contract 2 (contribution agr. with EBRD)	-	-	15 000 000	3 500 000	23.3	11 500 000	76.6		4 500 000	7 000 000		
Component III	-	X										
contract 3 (delegation agr. with KfW)	-	-	17 600 000	1 000 000	5.7	10 600 000	60.2		600 000	10 000 000 <sup>15</sup>	6 000 000 <sup>16</sup>	34.1
TOTAL IB												
TOTAL INV			169 900 000	16 500 000	9.7	82 100 000	48.3		5 100 000	77 000 000	71 300 000	42.0
TOTAL PROJECT			169 900 000	16 500 000	9.7	82 100 000	48.3		5 100 000	77 000 000	71 300 000	42.0

Amounts net of VAT

(1) In the Activity row use "X" to identify whether IB or INV

(2) Expressed in % of the **Total** Expenditure (column (a))

<sup>13</sup> It is the indicative amount according to the last EIB calculations; the contract between the EIB and the FBiH amounts to EUR 121.3 million

<sup>14</sup> EUR 5 million from IPF-MW 2008 and indicative amount from the municipalities own funds or other funds

<sup>15</sup> Loan CEB/KfW EUR 10 million.

<sup>16</sup> KfW EUR 4 million and EUR 2 million IPF-MW 2008.

## 5. Indicative Implementation Schedule (periods broken down per quarter)

Contracts	Signature of contract	Project Completion
Contract 1 (Cont. agreement EIB)	Q4/2009	Q4/2012
Contract 2 (Contribution Agr. EBRD)	Q4/2009	Q1/2011
Contract 3 (Delegation Agr. KfW)	Q4/2009	Q4/2012

All projects should in principle be ready for tendering in the 1<sup>ST</sup> Quarter following the signature of the Financing Agreement.

## 6. Cross cutting issues

### 6.1 Equal Opportunity

Equal opportunity for participation of men and women will be assured in all aspects of project implementation.

### 6.2 Environment

This works project is specifically targeting the improvement of the environment. These investments will mainly focus on the water and waste management sectors. All investments shall be carried out in compliance with the relevant Community environmental legislation.

The procedures for environmental impact assessment as set down in the EIA directive (Council Directive 85/337/EEC of 27 June 1985) fully apply to all investments financed under IPA. If the EIA directive has not yet been fully transposed, the procedures should be similar to the ones established in the above-mentioned directive.

If an investment is likely to affect sites of nature conservation importance, an appropriate nature conservation assessment shall be made, equivalent to that provided for in Article 6 of the Habitats directive (Council Directive 92/43/EEC of 21 May 1992).

### 6.3 Minorities

Participation in the project activities will be guaranteed on the basis of equal access regardless of racial or ethnic origin, religion or belief, disability, sex or sexual orientation.

## ANNEXES

- 1- Log frame in Standard Format
- 2- Amounts contracted and Disbursed per Quarter over the full duration of Programme
- 3- Description of Institutional Framework
- 4- Reference to laws, regulations and strategic documents
- 5- Details per EU funded contracts



<b>ANNEX I: LOGFRAME PLANNING MATRIX FOR Project Fiche</b>		Programme name and number <b>IPA National Programme 2009 – Bosnia and Herzegovina "Environment"</b> IPA 2009/021-333	
<b>Rehabilitation and construction of the water supply and sewerage collection infrastructure in BiH</b>			
		Contracting period expires: Two years following the date of the conclusion of the Financing Agreement	Disbursement period expires: One year following the end date for the execution of contracts
		EUR 169 900 000 Total budget :	IPA budget: EUR 16 500 000
Overall objective	Objectively verifiable indicators	Sources of Verification	
To contribute to the alleviation of the current financial and economic crisis by improving health conditions for people living in Bosnia and Herzegovina and increasing protection of the environment from the adverse effects of urban waste water in line with the EU <i>acquis communautaire</i> .	Degree of compliance of public utilities with the EU requirements in the environmental field.  Reduction of the level of pollution as measured by indicators defined in the relevant EU Directives, particularly the Council Directive 98/83/EC <sup>17</sup>	EC Progress reports National Action Plans	
Project purpose	Objectively verifiable indicators	Sources of Verification	Assumptions
Improved accessibility to quality drinking water and decreased waste water pollution in 17 municipalities of the BiH.	The supply of total drinking water from urban water supply system will increase from present 71% to 87% in Bijeljina municipality.  The municipalities will be required to report on a set of indicators <sup>18</sup> for the projects and performance of the utilities. The indicators will be adapted from the indicators of the International Water Association.	Water and waste water utility reports on the indicators to be reported; Customer meters;	The water utilities are able to fully manage the facilities in the post-implementation phase and the tariff policy of the public services is adequate to ensure the sustainability of the investments.
Results	Objectively verifiable indicators	Sources of Verification	Assumptions
<b>Component I</b> Water supply, sewerage collection systems and waste water treatment plants rehabilitated and constructed in Federation of BiH;  <b>Component II</b> II1. Northern part of Bijeljina municipality is connected to the urban water supply network, II2. Waste water in Bijeljina municipality collected and evacuated.  <b>Component III</b> III3. Sewerage system along Vrbas river up-graded and operational.	<b>Component I</b> Infrastructure projects implemented in 15 nominated municipalities in FBiH  <b>Component II</b> II1. Increased nr of households have access to the good quality drinking water in the northern area of Bijeljina municipality. II2. Amount of waste water of Bijeljina municipality collected, and evacuated.  <b>Component III</b> III 1. The incidence of the bacterial contamination (Escherichia Coli) of the raw water captured at Novoselja is decreased <sup>19</sup> . III 2. Two pumping stations constructed. III 3. 70% of the houses are covered by the secondary network; this collection service affects 2000 inhabitants in Banja-Luka.	<b>Component I</b> Project reports Provisional and final acceptance of the works provided by the relevant authorities.  <b>Component II</b> Utility records on users connected to system Customer meters Project reports Final acceptance of the works  <b>Component III</b> Project reports utility records Final acceptance of the works	All participating IFIs do commit their funds according to the Financing Plans  The BiH authorities participate with their co-financing.  <i>Potential Risks:</i> Delay in completion of design documentation;  Implementation of the construction works will be delayed due to severe weather conditions;  Lack of smooth cooperation among the stakeholders;

<sup>17</sup> OJ L 330/32 of 5.12.98.

<sup>18</sup> The key indicators to be measured will be: 1) Population coverage for water and wastewater collection; 2) % Treatment of wastewater; 3) Total water production; 4) Water losses; 5) Average domestic water consumption; 6) Average water and wastewater charges; 7) Collection Rate.

<sup>19</sup> As there is no good baseline data available, the values for this indicator will be set jointly by the relevant authorities (consultant and waterworks) at the beginning of project implementation.

Activities	Means	Costs	Assumptions
<b>Component I</b> II1.1 To rehabilitate, upgrade or new construction of <ul style="list-style-type: none"> <li>○ water resource infrastructure</li> <li>○ water supply systems</li> <li>○ extension of drinking water treatment facilities</li> <li>○ waste water collection systems</li> <li>○ waste water treatment facilities</li> <li>○ bulk and consumer metering</li> <li>○ water and energy efficiency measures</li> </ul> <b>Component II</b> II1.1. To construct main transport water supply pipelines in the total length of 11 km. II1.2. To construct distributive network for above-mentioned settlements in total length of 23 km. II1.3. To construct 600 house connections.  II2.1. To construct of the Sewerage Collector No.8 in length of 700m. II2.2. To construct of the rain water collector in total length of 700m. II2.3. To construct of the water supply pipeline in total length of 1,400m. II2.4. To construct of the secondary collectors in total length of 7,360m. II2.5. To construct 200 house connections.  <b>Component III</b> III3.1. To construct the pumping stations (two stations) III3.2. To construct house connections and secondary network	<b>Component I</b> EC Contribution Agreement with EIB EIB co-financing IPF-MW Municipal co-financing and other funds  <b>Component II</b> EC Contribution Agreement with EBRD EBRD co-financing Municipal co-financing  <b>Component III</b> EC Delegation Agreement with KfW IFI's(KfW/CEB) co-financing IPF-MW Municipal co-financing	EUR 12,000,000 EUR 60 000 000 EUR 5 000 000 EUR 65 300 000  EUR 3,500,000 EUR 7 000 000 EUR 4 500 000  EUR 1,000,000 EUR 10 000 000 EUR 2 000 000 EUR 600 000	

Pre-conditions

**ANNEX II: amounts (in EUR) Contracted and disbursed by quarter for the project**

<b>Contracted</b>	<b>Q3/ 2009</b>	<b>Q4/ 2009</b>	<b>Q1/2010</b>	<b>Q2/ 2010</b>	<b>Q3/ 2010</b>	<b>Q4/ 2010</b>	<b>Q1/ 2011</b>	<b>...</b>	<b>Q4/ 2011</b>	<b>...</b>	<b>Q4/ 2012</b>	
Contract 1		12 000 000										
Contract 2		3 500 000										
Contract 3		1 000 000										
<b>Cumulated</b>		<b>16 500 000</b>										
<b>Disbursed</b>												
Contract 1			11 400 000								600 000	
Contract 2			3 300 000				200 000					
Contract 3			950 000								50 000	
<b>Cumulated</b>			<b>15 650 000</b>	<b>15 650 000</b>	<b>15 650 000</b>	<b>15 650 000</b>	<b>15 850 000</b>	<b>15 850 000</b>	<b>15 850 000</b>	<b>15 850 000</b>	<b>16 500 000</b>	

### **Annex III Description of Institutional Framework**

The country of Bosnia and Herzegovina has two major, highly autonomous “Entities”: the Federation of Bosnia and Herzegovina (FBiH), and Republika Srpska (RS). Each has its own laws that impact the delivery of water and wastewater services, addressing most aspects of technical, administrative and financial matters.

#### ***The role of MoFTER***

The role of the State in the sector has been increasing in BiH over the past years, in view of increasing international obligations of BiH and a need for an improved coordination at state level and ensuring more efficient use of scarce resources available to the Sector. The State level coordination role is assigned to the Ministry of Foreign Trade and Economic Relations and its Sector for Environment, Energy and Natural Resources. Consensus has been reached on creation of temporary Water Framework Directive Unit attached to MoFTER, which in return must receive more significant assistance to increase human and technical capacities. The WFD Unit will facilitate and coordinate in meeting the international obligations in water sector (e.g. ICPDR and Sava commission, Barcelona Convention etc.). Currently, the "embryo" of the WFD Unit has been formed, with the engagement of a water expert who is engaged (with the support of ICPDR) on the implementation of the WFD in BiH, and obligations towards the ICPDR and Sava Commission.

#### ***Water and Environment Ministries in the Entities***

In the Federation the main authorities responsible for environment and water issues are the Federal Ministry of Agriculture, Water Management and Forestry (MoAWMF) and the Federal Ministry of Environment and Tourism (following a recent restructuring). The Federal Ministry of Agriculture, Water Management and Forestry (is responsible for the water policy and strategy development, the issue of approvals and permits, setting of standards and regulations. The Federal Ministry of Environment and Tourism is responsible for the preparation of the environmental policy and strategy-related documents, quality standards for air, water, and soil, environmental monitoring as well as supervision of relevant institutions from the environment sector.

Similar to Federation BiH, there are two Ministries in Republika Srpska responsible for environment and water issues, namely: Ministry of Agriculture, Forestry and Water Management (MAFWM RS) and Ministry of Spatial Planning and Ecology of RS. Their competencies are similar to those in FBiH.

In addition to the above-mentioned ministries, several other institutions in Bosnia and Herzegovina deal with water issues indirectly. These include other ministries, independent administrative offices and institutions, and institutions related to the ministries. Other ministries with secondary responsibilities for water are usually the ones dealing with health, industry, energy and mining (or the economy in general), labour and public welfare.

#### ***Public Water Companies in Federation and Directorate for water in RS***

There are two watersheds in BiH: Sava (Danube) and Adriatic. For discharging operative functions in past, two public water management companies were set up in FBiH (Sarajevo and Mostar), while in RS existed Directorate for Waters in Bijeljina. The adoption of new Water Laws in FBiH and RS envisages the transposition period of 6 months from existing Companies into the 4 Entities Water Agencies (in RS, a new agency the Agency in Trebinje should be established).

Whilst responsibilities of the Public Companies and Directorate in past included more activities on water policy and infrastructure development and sector planning, its main role in new Water Law is related to implementation aspect of river basin management planning, licensing, enhanced public participation.

#### **Annex IV Reference to laws, regulations and strategic documents**

Reference list of relevant laws and regulations:

Water Laws, Official Gazette of RS 50/06

Water Laws, Official Gazette of FBiH 70/06

Reference to national / sectoral investment plans - See chapters 2.6 & 3.1.

## **Annex V Details per EU funded contracts**

### **(\*) non standard aspects (in case of derogation to PRAG):**

**Component I** – Contribution Agreement with the European Investment Bank (EIB)

**Component II** – Contribution Agreement with the European Bank for Reconstruction and Development (EBRD)

**Component III** – Delegation Agreement with the Kreditanstalt für Wiederaufbau (KfW)

### **(\*\*) section on investment criteria (applicable to all infrastructure contracts and constructing works):**

- **Rate of return**

#### **Component I**

The recent EU-funded Water Quality Management consultancy on the improvement of water and sanitation services in BiH undertook an economic and financial modelling exercise based aggregating 16 so-called priority municipalities undergoing a phased development. In the base case, the calculation results in an Economic IRR of 9% and, including a 60% IPA grant component typical of direct Cohesion Fund and IPA beneficiaries in the water sector a Financial IRR of 4%. These calculations are indicative for this operation, demonstrating that even with conservative assumptions, the investments can be economically justified, provided that due care is given to safeguarding the financial sustainability through a phased approach to investments and respecting affordability constraints.

- **Co financing**

**Component I** - The indicative Financing Plan indicates that EUR 60.3 million should be financed by the municipal funds and/or other resources. The figure for the municipal funds is not specified.

**Component II** - The BiH municipal authority co-finances the activities under phase II of the investment program indicatively with EUR 4.5 million.

**Component III** - The BiH municipal authority will co-finance the activities according to the overall Financing Plan for whole investment with EUR 0.6 million.

- **Ownership of assets (current and after project completion)**

**Component II** - The land of the construction sites is owned by the municipality of Bijeljina. The facilities will be in the same ownership. The feasibility study in English for the investment exists (prepared by the company “Becom & Jacobs”). Also the Environmental Impact Assessment has been completed. Project documentation has been prepared (in local language).

**Component III** - The land of the construction sites are owned by the municipality of Banja Luka. The facilities will be handed over to the Banja Luka water utility (VODAVOD Banja Luka) for operation. Feasibility studies, including the environmental assessment and (partly) detailed designs are available (partly to be upgraded).