

**Standard Summary Project Fiche – IPA 2008 centralised National  
and CBC Programmes  
Upgrading of Environmental Infrastructure**

**1. Basic information**

- 1.1 **CRIS Number:** 2008/020-316  
1.2 **Title:** **Upgrading of environmental infrastructure**  
1.3 **Sector:** 02.27  
1.4 **Location:** Nikšić, Montenegro

**Implementing arrangements:**

**1.5 Contracting Authority (EC):**  
Delegation of the European Commission

**1.6 Implementing Agency:**  
Delegation of the European Commission

**1.7 Beneficiary (including details of project manager):**  
Municipality of Nikšić  
Contact person: Zeljko Popovic, Municipality Manager

JP Vodovod i Kanalizacija (JP ViK)  
Hercegovački put bb  
Nikšić  
Montenegro.  
Tel.:+382 (0)83 232 210  
Contact person: Olivera Božović (Director, JP ViK)

**1.8 Overall cost (VAT excluded)<sup>1</sup>:**  
€ 12.4 million

**1.9 EU contribution:**  
€ 3.5 million

**1.10 Final date for contracting:**  
Two years from the conclusion of the Financing Arrangement

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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.

### **1.11 Final date for execution of contracts:**

Two years from the conclusion of the Financing Agreement

### **1.12 Final date for disbursements:**

One year after the execution of the contract.

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

### **2.1 Overall Objective:**

To enhance Montenegro's ecological development by ensuring that economic development is environmentally sustainable and that citizens are protected from health risks linked to pollution of air, water and soil.

### **2.2 Project Purpose:**

To improve the quality of Montenegro's environmental wastewater infrastructure base, in particular targeting the protection of environmentally sensitive receiving waters e.g. Skadar Lake.

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

The project's objective is consistent with the **Stabilisation and Association Agreement** (Article 111) which highlights the need to develop and strengthen co-operation in the environmental field in order to halt further degradation, and start improving the environment situation with the aim of sustainable development.

### **2.4 Link with MIPD:**

The Montenegro 2008-2010 **MIPD** identifies as a main priority the implementation of activities and investment in key environmental infrastructure and equipment, particularly in the areas of wastewater, solid waste and air pollution.

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

The **National Strategy for Sustainable Development** of Montenegro highlights the importance of developing infrastructure, including wastewater treatment, as a pre-condition of implementing its strategy. The absence of such infrastructure directly inhibits the country's economic growth by jeopardising its natural resources, by limiting the potential for foreign investment and restricting the development of tourism.

### **2.6 Link with national/sectoral investment plans (where applicable)**

The Government has adopted strategic investment master plans to ensure the rational development of its environmental infrastructure system. The proposed project is the main priority of this investment strategy.

### **3. Description of project**

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

Montenegro's existing wastewater infrastructure is limited to two wastewater treatment plants (WWTPs). One serves the central urban area of Podgorica, the other is at Nikšić, Montenegro's second largest city. Strategic investment plans were developed under the CARDS 2002 and 2003 programmes that identified the rehabilitation of these two plants within the top priorities. The investment plans were adopted by the government, and the Podgorica WWTP was rehabilitated under the CARDS 2006 programme at a cost of €1.62 million. The Nikšić WWTP has yet to be refurbished and remains non-operational.

In order to address the investment needs in the water sector, particularly wastewater, the government has negotiated a long term framework loan of €57 million with the European Investment Bank. This loan is based on the wider strategic investment plan mentioned above and is intended to facilitate the implementation a wide range of top priority investment projects throughout the country. The Government's access to this loan facility will be strictly limited within the overall borrowing ceiling imposed by the IMF. The refurbishment of the Nikšić WWTP will be the first time the loan has been utilised, and the proposed grant of €3.5 million is crucial leverage in activating the first phase of that loan. The Nikšić municipality together with EIB have jointly funded the preparation of a feasibility studym which includes cost benefit analysis and environmental impact assessment (EIA) report.

The city has a significant effluent discharge from its two principal industries; a brewery and a steel production factory. The brewery is the main polluter. Extensive discussions have taken place with the brewery about how to deal with its highly polluted discharge. The brewery has now agreed to fund the construction of an on-site pre-treatment facility which will render the effluent suitable for discharge to the public sewerage system. It will also be charged a higher rate for its discharge commensurate with the increased treatment costs.

The present discharge (i.e. industrial and domestic) to be served by the by the Nikšić WWTP is equivalent to a population of 58,000. This is projected to increase to 130,000 by the study's planning horizon of 2030. When constructed in the 1970s, the existing plant had a capacity equivalent to a population of 28,000. However, it has been out of action since 1990 because of a lack of funds for routine maintenance and equipment replacement.

The study has compared two alternative solutions. The first option would involve the construction of two independent WWTPs; a northern plant constructed on the site of the existing facility and treating 85% of the city's effluent; and a southern plant constructed on a site reserved within the Nikšić General Urban Plan, and treating the remaining 15% of the effluent. The second option is to provide a single WWTP at the southern site and to divert all effluent there. The study concluded that in terms of capital investment, operating costs and phasing flexibility, the first option is the preferred solution.

The main conclusions of the feasibility study and EIA are:

- Under the preferred option to ultimately construct two WWTPs, Phase 1 - the subject of this Project Fiche - should be the construction of the northern WWTP serving 85% of the population (industrial and domestic). The construction of the southern WWTP serving the remaining 15% should be delayed until 2019 because of the relatively small effluent quantity, the absence of a collection sewerage network, and land expropriation issues.
- The capital investment requirement for Phase 1 is € 12.4 million, including design, construction, supervision and contingencies. However, the conceptual design has been based on national environmental standards for the quality of wastewater discharge to public sewers and natural recipients (Regulation 10/97) which are more stringent than EU Directives, in particular Directive (91/271/EEC).
- The treatment of municipal wastewaters will have positive effects on the public in general, on surface and ground water quality, on aquatic ecosystems in the Zeta and Gracanica rivers, and Skadar Lake. Operation of the WWTP may increase noise pollution and have adverse impact on air quality, as a result of emissions of obnoxious odours from the plant. These impacts can be minimized by the introduction of mitigating measures within the detailed design. Temporary negative impact during the construction phase due to soil cover loss or dust emission can be alleviated through the application of advanced civil engineering techniques and land re-cultivation measures. Provided that the recommended protective measures are complied with, the WWTP will have an overall significant positive effect on the environment.
- The economic and sensitivity analysis concludes that the project is feasible when subjected to the normal criteria of affordability. Net present value (NPV) amount is €8,495.43 and since it is positive value project is acceptable and cost-benefit ratio according to feasibility study is 1,19 .

The quality of construction of the WWTP depends to a large extent on adequate technical supervision being provided during the construction phase. The equipment and installation works are relatively sophisticated, and the final beneficiary of the investment (Niksic Vodovod) does not currently have the necessary in-house expertise to ensure the required level of supervision. The proposed project therefore includes the provision of expert services to assume the contractual role of engineer/supervisor throughout the construction period.

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

The project's main **impact** will be the measurable and tangible improvement of water quality in the receiving rivers. These rivers eventually discharge to Skadar Lake, an important national park with an abundance of sensitive flora and fauna.

The project is the first of a programme of wastewater investments and its successful implementation and conclusion will act as a **catalyst** for additional investment in the sector. IPA grant funding should be used to maximise the leverage effect by blending grants with IFI long-term loan finance.

**Sustainability** of the investment will be promoted through the adoption of treatment technology having a degree of sophistication commensurate with the potential technical and financial capacity of the beneficiary institution responsible for its operation and maintenance. Tariff charges will be increased, taking into account affordability, in order to make available sufficient financial resources to cover projected operating costs.

**Cross border impact** will manifest itself in improved water quality in Skadar Lake, whose waters are shared by Montenegro and Albania.

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

#### **Result 1**

Fully equipped and operational WWTP, including belonging collector pipelines, having the capacity to treat 85% of effluent quantities projected to the year 2030, constructed in full compliance with the contractual technical requirements and increased quality of discharge waters.

*Measurable indicators:*

Number of residents, commercial and industrial units having wastewater effluent connected to a WWTP (equivalent to a population of 58,000);

26120 meters of newly installed and reconstructed sewage collector pipelines;

Quality of discharge waters in accordance to the projected parameters;

Final acceptance of the works performed provided by the Contracting Authority;

#### **Result 2**

Technical staff of the beneficiary institution is fully trained in the operation and maintenance of the WWTP's equipment, ensuring long-term sustainability of the investment.

*Measurable indicator:*

Minimum of 15 technical staff, in charge for WWTP operations, received training certification by the equipment suppliers.

### **3.4 Activities:**

#### ***Activities related to Result 1***

**A 1.1** Procurement of works contract in accordance with the PRAG procedure. (for the part of the project financed by IPA);

**A 1.2** Procurement of works and supplies contract in accordance with the other financing institutions procedure. (for the remaining part of the project );

**A 1.3** Implementation of the works contract by the selected contractor; construction activities to be supervised by officially appointed municipal supervising engineer;

**A 1.3** Implementation of the works and supplies contract by the selected contractor; construction and installation activities to be supervised by contracted supervision contractor;

**A 1.4** Contractor will assist beneficiary institution in the review and approval of technical designs, tender evaluation process and contract award;

**A 1.5** During the supervision stage, the contracted Supervisor shall assume the responsibilities of the Engineer (FIDIC), including management and monitoring of technical and financial aspects; issuing of required approvals; contract administration including the issuing of variation orders; final inspection and handing over of WWTP;

**A 1.6** Hand over of the WWTP to the final beneficiary, conditional upon final acceptance certification.

#### ***Activity related to Result 2***

**A 2.1** Formal on-site training provided by suppliers of specialised equipment installed within the WWTP.

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

Signature of the works contract is conditional upon prior formal commitment from the beneficiary regarding its co-financing obligations. The beneficiary should also provide an action plan for assuring the provision of adequate funding for operation and maintenance of the completed facility; such plan should detail planned phased tariff increases and the procedures for ensuring increased collection rates.

### **3.6 Linked activities**

The proposed project is a culmination of various activities funded under national CARDS programmes. Under the CARDS 2003 programme (*Preparation of a Sewerage and Wastewater Strategic Master Plan (Central and Northern Region)*)

*Montenegro* prepared by consortium of Safège-Tebodin-LDK, contract number 03MTG01/04/00 with amount of 765,000.00 €), a strategic investment plan for the central and northern regions of Montenegro was developed and subsequently adopted by the Government. The Niksic WWTP was identified as a high priority.

On the basis of that plan, the EIB agreed to provide the €57 million framework loan to address the urgent needs. The EIB also co-funded the feasibility study and EIA for the proposed Niksic project.

Under CARDS 2005 (*Support to the Ministry of Environment*, contract number 05MTG01/06/002 with amount of 1,119,308.08 €) and 2006 (*Support to the development of environment sector*, contract number 06MON01/07/001 with amount of 1,364,000.00 €), support has been provided to the Ministry of Environment to establish a Project Implementation Unit (PIU) and an Environmental Protection Agency (EPA). Although not yet fully operational, it is anticipated that the PIU will have capacity to provide technical support during the construction phase; and that the EPA will ensure that permitting and enforcement procedures relating to the discharge of industrial wastewater to the new WWTP are complied with.

### **3.7 Lessons learned**

Technical expertise with municipal service providers is inherently weak. However, the public enterprise responsible for wastewater service provision in Niksic (JP Vodovod i Kanalizacija) has demonstrated itself to be a reliable and, technically, relatively competent. During preparation of the Feasibility Study and EIA it assumed a monitoring role to ensure an acceptable standard of finished product.

However, given the relatively sophisticated technical nature of the project, there is concern that there is insufficient in-house capacity to effectively monitor and supervise construction of the facility. A combination of an externally-appointed consultant to manage the project, together with the use of in-house engineers to undertake day-to-day supervision duties, will ensure an adequate overall level of supervision. It also very important to stress that experiences and lessons learned from rehabilitation of Podgorica WWTP which was financed under the CARDS 2006 programme (Rehabilitation of wastewater treatment plant, contract number 06MON01/07/002 with amount of 1,615,404.00 €) will be used in implementation of this project.

Regarding the securing of adequate funding to maintain and operate the facility, the feasibility study concludes that the required phased increase of tariff charges will be in line with the projected growth in disposable income and will, therefore, not result in increased reluctance to pay. However, there will inevitably be a political reluctance to introduce such increased tariffs and this perception must be countered by the conditionality detailed in Section 3.5.

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

			TOTAL EXP.RE	SOURCES OF FUNDING								
				IPA COMMUNITY CONTRIBUTION		NATIONAL CONTRIBUTION					PRIVATE CONTRIBUTION	
ACTIVITIES	IB	INV	EUR (a)=(b)+(c)+(d)	EUR (b)	%	Total EUR (c)=(x)+(y)+(z)	%	Central EUR (x)	Regional/ Local EUR (y)	IFIs EUR (z)	EUR (d)	%
Activity 1												
contract 1 (works)		x	3,500,000	3,500,000	100							
contract 2 (works and supply)		x	8,400,000			8,400,000	100		2,700,000	5,700,000		
contract 3 (services)	x		500,000			500,000	100			500,000		
TOTAL IB			500,000			500,000	100					
TOTAL INV			11,900,000	3,500,000	29,4	8,400,000	70,6		2,700,000	5,700,000		
<b>TOTAL PROJECT</b>			<b>12,400,000</b>	<b>3,500,000</b>	<b>28,2</b>	<b>8,900,000</b>	<b>71,8</b>		<b>2,700,000</b>	<b>6,200,000</b>		

Amounts net of VAT

\* expressed in % of the Total Cost

This project will be implemented through works and service contract(s). Parts of the EIB loan (€ 6.2 million) and Montenegrin co-financing (€ 2.7 million) will be used for a works and a service contract (for supervision of the works and training). The EIB and Montenegrin authorities will be in charge of these tender procedures. The EC will complement the project with its € 3.5 million contribution in form of a works contract. The tendering process by the EC-Delegation is expected to start in Q1 2009





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

Contracts	Start of Tendering	Signature of contract	Project Completion
Works Contract	Q1 2009	Q3 2009	Q1 2011
Works and Supply Contract	Q3 2008	Q1 2009	Q1 2011
Services Contract	Q3 2008	Q1 2009	Q1 2011

Project funded by EU (works contract) should in principle be ready for tendering in the 1<sup>st</sup> Quarter, following the signature of the FA.

## **6. Cross cutting issues:**

### **6.1 Equal Opportunity**

Extensive legislation exists in Montenegro related to equal opportunity issues. The Project will ensure, as far as is practicable, that the internal policies, structure or operating procedures of the beneficiary will conform to relevant EU directives and/or laws related to the promotion of equal opportunity.

### **6.2 Environment**

The project directly addresses the promotion of improved environmental conditions in Montenegro and the project will be in compliance with relevant EU Directives.

### **6.3 Minorities**

There are current legislative provisions for the protection of minority rights. The proposed project will, as far as is practicable, take the required steps to assure that the internal policies, structure or operating procedures of the beneficiary will conform with or promote the minority issues.

## **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:
  - Reference list of relevant laws and regulations
  - Reference to AP /NPAA / EP / SAA
  - Reference to MIPD
  - Reference to National Development Plan
  - Reference to national / sector investment plans
- 5 - Details per EU funded contract

## ANNEX 1: Logical framework matrix

Logframe Planning Matrix for <b>Upgrading of Environmental Infrastructure, Montenegro</b>	Programme name and number	
•	Contracting period expires: two years from the conclusion of the Financing Agreement	Disbursement period expires one year after the execution of the contract
	Total budget: € 12.4 million	IPA budget: € 3.5 million

Overall objective	Objectively verifiable indicators	Sources of Verification	
To ensure that, in line with Montenegro's ecological development concept, economic development is environmentally sustainable and that citizens are protected from health risks linked to pollution of air, water and soil.	Improved national and per capita economic growth; Reduced levels of water and soil pollution	World Bank/IFI reports National statistical reports on Republic's economic performance, including GDP and employment statistics. Environmental condition monitoring reports (Hydro Meteorological Institute reports, Center for Eco-toxicological Research reports)	
Project purpose	Objectively verifiable indicators	Sources of Verification	Assumptions
To improve the quality and sustainability of Montenegro's environmental wastewater infrastructure base, in particular targeting the protection of environmentally sensitive receiving waters e.g Skader Lake.	Infrastructure construction completed to the specified quality Human and financial resources in place to ensure adequate operation and maintenance of the WWTP. Measurable pollution loads (BOD, COD, TSS) within the limits prescribed by Montenegro water quality standards (Regulations related to the quality of wastewaters and manner of their discharge into the public sewers and receiving waters, Official Gazette of R Montenegro no. 10/97 and 21/97) and Urban Waste Water Treatment Directive (91/271/EEC, 98/15/EEC)	Final Acceptance Certificate issued by the Contracting Authority Inspection of beneficiary's staff register and annual operating budget commitments Contractor's progress reports and internal/external monitoring reports. Test reports performed by Center for Eco-toxicological Research. Reports generated from WWTP monitoring equipment.	The Government of the Montenegro remains committed to its sustainable development policy The Government of Montenegro and the international community remain committed to the adopted strategic investment strategy. Timely provision of IFI and other donor funding
Results	Objectively verifiable indicators	Sources of Verification	Assumptions
Fully equipped and operational WWTP, including belonging collector pipelines, having the capacity to treat 85% of effluent quantities projected to the year 2030, constructed in full compliance with the contractual technical requirements and increased quality if discharge waters.  Technical staff of the beneficiary institution is fully trained in the operation and maintenance of the	Number of residents, commercial and industrial units having wastewater effluent connected to a WWTP (equivalent to a population of 58,000); 26120 meters of newly installed and reconstructed sewage collector pipelines; Final acceptance certificate of the works performed provided by contracted Supervisor; Quality of discharge waters in accordance to the projected parameters	Sewerage system physical asset survey;  Effluent quality sampling and testing reports before (baseline) and after WWTP is operational;  Final technical acceptance certification; Quality certificates for installed equipment;	Adequate capacity of international and/or local construction contractors to undertake the construction works Beneficiary institution is able to maintain adequate qualitative and quantitative counterpart staff through provision of the adequate budget resources The beneficiary is able to meet its co-financing and debt servicing obligations

WWTP equipment, ensuring long-term sustainability of the investment.	Minimum of 15 technical staff, in charge for WWTP operations, received training certification by the equipment suppliers.	Training certification.	The beneficiary implements its commitments relating to tariff increases External budgetary constraints remain stable
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Activities	Means	Costs	Assumptions
<p><b>A 1.1</b> Procurement of works contract in accordance with the PRAG procedure. (for the part of the project financed by IPA)</p> <p><b>A 1.2</b> Procurement of works and supplies contract in accordance with the other financing institutions procedure. (for the remaining part of the project )</p> <p><b>A 1.3</b> Implementation of the works contract by the selected contractor; construction activities to be supervised by officially appointed municipal supervising engineer.</p> <p><b>A 1.3</b> Implementation of the works and supplies contract by the selected contractor; construction and installation activities to be supervised by contracted</p> <p><b>A 1.4</b> Contracted Supervisor will assist beneficiary institution in the review and approval of technical designs, tender evaluation process and contract award;</p> <p><b>A 1.5</b> During the supervision stage, the contacted Supervisor shall assume the responsibilities of the Engineer (FIDIC), including management and monitoring of technical and financial aspects; issuing of required approvals; contract administration including the issuing of variation orders; final inspection and handing over of WWTP.</p> <p><b>A 1.6</b> Hand over of the WWTP to the final beneficiary; conditional upon final acceptance certification</p> <p><b>A 2.1</b> Formal on-site training provided by suppliers of specialised equipment installed within the WWTP.</p>	<p>Company contracted by ECD to perform works contract according to specified technical requirements</p> <p>Company contracted by EIB or local authority to perform works and supplies contract according to specified technical requirements</p> <p>Company contracted by EIB or local authority to perform supervision services contract according to specified technical requirements</p> <p>Formal handing over procedures, following final acceptance</p> <p>Training provided by equipment supplier</p> <p>Company contracted by EIB or local authority to perform supervision services contract according to specified technical requirements</p>	<p>Works contract IPA : €3.5 million</p> <p>Works contract EIB + local : €8.4 million</p> <p>Supervision services contract EIB : €0.5 million</p>	<p>Availability of suitably qualified and experienced consultants and works contractors</p> <p>Works permits and licences secured by beneficiary</p>

**ANNEX 2: Amounts (in €) Contracted and disbursed by quarter for the project:**

<b>Contracted</b>	<b>Q1 2009</b>	<b>Q2 2009</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>
Contract 1 ECD (works)	3,500,000.00								
<b>Cumulated</b>	<b>3,500,000</b>								
<b>Disbursed</b>	<b>Q1 2009</b>	<b>Q2 2009</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>
Contract 1 ECD (works)	1,200,000.00				1,150,000.00				1,150,000.00
<b>Cumulated</b>	<b>1,200,000</b>				<b>2,350,000</b>				<b>3,500,000</b>

### **ANNEX 3: Description of Institutional Framework**

The beneficiary of the proposed investment is JP Vodovod i Kanalizacija Niksic, a public service company of Niksic Municipality. The company's responsibilities comprise the operational management, development and maintenance of infrastructure relating to water supply, wastewater collection and disposal, and surface water drainage.

The Company has a total of 162 employees and is directed by a Management Board which controls the functions of two sectors; the Technical Unit and a Financial/Legal Unit. The Technical Unit has 123 employees and is organised into three departments responsible for water supply, sewerage and engineering.

Responsibility for operation and maintenance of the wastewater treatment plant would rest with the Sewerage Department. This Department has a total of 24 employees; a manager plus 19 employees dedicated to maintaining the sewage and surface water collection systems and 4 operatives maintaining the existing wastewater treatment facility.

## **ANNEX 4: Reference to laws, regulations and strategic documents**

### **1. Reference list of relevant laws and regulations**

#### **Laws:**

Law on coastal zone (OG RM No. 14/1992)  
Law on Municipal Activities (OG RM No. 7/4 1995)  
Law on Environment (OG RM No. 12/1996)  
Regulations on environmental impact assessment (OG RM No. 14/1997)  
Guidelines on EIA Study content (OG RM No. 21/1997)  
Law on the Basic Principles of Environmental Protection (OG FRY No. 24/1998)  
Law on Local Self-Government (OG RM No. 42/2003)  
Law on Environmental Impact Assessment (OG RM No. 80/2005)  
Law on Strategic Environmental Assessment (OG RM No. 80/2005)  
Law on Integrated Pollution Prevention Control (OG RM No. 80/2005)  
Law on Waste Management (OG RM No. 80/2005)  
Law on Environmental Noise (OG RM No. 45/2006)  
Law on Public Procurement (OG RM No. 46/2006)  
Law on Water (2007)

#### **Plans, Programmes, and Strategies**

Strategy for Development of Food Production and Rural Areas (2006)  
Strategic Framework for Development of Sustainable Tourism in Northern and Central Montenegro (2006)  
Tourism Development Strategy until 2020 (2006)  
Foreign direct investment incentives strategy of Montenegro (2006)  
National Strategy for Sustainable Development (2007)

### **2. Reference to other strategic documents**

Master Plan for Sewerage and Wastewater in Central and Northern Region (2004)  
National Strategy of Sustainable Development, Action Plan 2006 – 2009 (2006)

- **Reference to EP / SAA**

#### **The European Partnership Document**

##### *Short-term priorities*

- Continue approximating Montenegrin legislation to EU legislation and standards, notably environmental protection framework legislation. Develop the administrative capacity to implement and enforce adopted legislation.
- Develop an overall environment protection strategy (water, waste, air). Adopt the land use plan; adopt the sustainable development strategy and sector strategies (integrated



coastal zone management, biodiversity, climate change). Strengthen environmental management administrative capacity.

*Medium-term priorities*

- Begin implementing the land use plan and the overall environment protection strategy. Begin implementing the sustainable development strategy and other sector strategies (integrated coastal zone management, biodiversity, climate change). Ensure a viable financial framework for implementing a mid- to long-term environmental protection policy.
- Ratify and start implementing the Kyoto protocol.
- Continue strengthening the administrative capacity of ministries and bodies in charge of environmental planning, permitting, inspecting, enforcement and monitoring, as well as project management.

**The Stabilisation and Association Agreement (SAA, March 2007)**

*Article 111:*

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

The parties shall, in particular, establish co-operation with the aim of strengthening administrative structures and procedures to ensure strategic planning of environment issues and co-ordination between relevant actors and will focus on the alignment of Montenegro's legislation to the Community *acquis*. Co-operation could also centre on the development of strategies to significantly reduce local, regional and trans-boundary air and water pollution, to establish a framework for efficient, clean, sustainable and renewable production and consumption of energy, and to execute environmental impact assessment and strategic environmental assessment. Special attention will be paid to the ratification and the implementation of the Kyoto Protocol.

• **Reference to MIPD**

*Main Priorities and objectives (environment-related)*

Strengthening the competitiveness of the Montenegrin economy and improve the business environment via, *inter alia*, the introduction of key environmental legislation and its enforcement, including environmental impact assessment; implementation of activities and investments in the areas of waste water, solid waste and air pollution.

• **Reference to EC Montenegro 2007 Progress Report**

*Relating to administrative capacity:*

The environmental protection agency has not yet been established. Overall, administrative capacity is weak and suffers from lack of staff and of satisfactory coordination between the bodies involved in environmental protection issues, in particular inspection activities. The lack of implementation capacity at local level and poor coordination between central and local government further limit enforcement capability.

Overall, some progress has been achieved in terms of alignment with the EU environmental standards and harmonisation seems to be on track. However, further efforts are needed, in particular on implementation and enforcement which pose a significant challenge. Particular attention needs to be paid to strengthening administrative capacity.

- **Reference to National Development Plan**

The Government's **National Strategy for Sustainable Development** identifies the following priority tasks to improve environmental management:

the establishment of the efficient legislative and institutional framework for environmental protection (particularly relating to free access to information, implementation of EIA, SEA and IPPC legislation and strengthening other regulatory and market instruments for environmental management). The measures to achieve this include further harmonisation with EU legislation, building capacities of administration at all levels, particularly relating to efficient application of the new legislation, establishment of the Environmental Protection Agency and the eco-fund, alignment of monitoring programmes and reporting systems with EEA standards, activities to enable free access to information and more significant public participation in decision-making, etc. Certain measures relevant for the achievement of this objective are given also within other sectors and topics – in industry, new technologies, water, air, waste, governance and participation, etc.

- **Reference to national / sector investment plans**

Not applicable

## **ANNEX 5: Details per EU funded contract**

### **ACTIVITY 1 (Works Contract – Construction of WWTP)**

#### **Available Feasibility Studies:**

- *Preparation of a Sewerage and Wastewater Strategic Master Plan (Central and Northern Region) Montenegro* dated November 2004 (prepared by consortium of Safage-Tebodin-LDK and financed under the CARDS 2003 national programme);
- *Feasibility Study for Nikšić Wastewater Project* dated 2006 (prepared by Jaroslav Cerni Consultants, Belgrade, and co-financed by Nikšić Municipality and EIB)
- *Environmental Impact assessment for Nikšić WWTP* dated 2006 (prepared by Jaroslav Cerni Consultants, Belgrade, and co-financed by Nikšić Municipality and EIB)

It is envisaged that whole project will be implemented through three different contracts. Works and supply contract funded by EIB and local (municipal) contribution will cover: demolition of old WWTP, design and construction works of the new WWTP, supply and installation of waste water treatment equipment and training of staff in charge for operation of WWTP. Service contract funded by EIB will cover expert supervision of construction works, selection, supply and installation of waste water treatment equipment and final technical approval and certification. Works contract funded by EC will cover reconstruction and construction of sewage network as described in feasibility study. More specifically, 4560 meters of sewage network is going to be reconstructed in six streets in the central part of the city. New construction will cover 11860 meters of the sewage network in the same city area with another 9700 meters of network in the suburbs.

#### **Technical Specifications**

This project is planned to be implemented through "design and build" methodology. This actually means that contracted company will do the technical design first and on the base of prepared design perform construction works. Consequently, precise technical specification and technical drawings will be available after designing phase of the project is finalised.

#### **Rate of Return**

(As identified in the above "*Feasibility Study for Nikšić Wastewater Project*")

The NPV for the project is calculated according to known methodology and economic cash flow, based on the discount rate of 4%. Several factors affecting the amount of discount rate have been taken in consideration for the selection of corresponding rate:

- available funds, borrowed, contributed by the companies operating in the municipality, donated or own proceeds,
- interest rate for borrowed proceeds,
- investment risks involved,

- general position of the company,
- economic policy pursued in the country,
- projected inflation rate,
- movements on the international capital market.

The calculated NPV amounts to €8,495.43 but since it is bigger than zero (has positive value), the project is acceptable according to this parameter. Such a value, as an indicator of absolute investment yield, that is, net present value, is indicative of projects of common interest, like provision of water and wastewater services.

Internal break-even point represents the discount rate at which implementation of certain investment projects is considered be justified. It is compared with project discount rate and has to be equal or above it. For this particular project, internal break-even point is 4.84%, being higher than discount rate indicating that the project is acceptable. This discount rate is higher than interest rate applied for calculation of credit instalments.

Cost-benefit ratio is calculated as the ratio of discounted revenues to discounted expenses and is 1.19.

### **Co-financing**

The works and service contracts will be co-financed (parallel co-financing) by Nikšić Municipality utilising loan funding from the EIB and its own financial resources.

### **Compliance with state aids provisions**

Not applicable

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

The land upon which the facility is to be constructed is within the ownership of Nikšić Municipality. Upon completion of the works, the physical assets will come under the ownership of “JP Vodovod i Kanalizacija Niksic”, a public service company of Niksic Municipality.