ENVIRONMENTAL OPERATIONAL PROGRAMME
2007-2009

INSTRUMENT FOR PRE-ACCESSION ASSISTANCE

2007HR16IPO003

September 2007
# TABLE OF CONTENTS

**GLOSSARY OF ABBREVIATIONS** ................................................................................................................................................. 4

1. **CONTEXT, CONSULTATION AND COORDINATION** ............................................................................................................. 8

1.1. **NATIONAL POLICY AND SOCIO-ECONOMIC CONTEXT** ........................................................................................................ 8

1.1.1. Current policy situation .............................................................................................................................................................. 8

1.1.2. Policy expectations in the short to medium term period ............................................................................................................. 11

1.1.3. National policy context for the Environmental Protection Operational Programme ........................................................................ 11

1.1.4. Institutional framework .............................................................................................................................................................. 14

1.1.5. Croatia’s legal framework ............................................................................................................................................................ 17

1.1.6. Horizontal Issues ......................................................................................................................................................................... 19

1.1.7. Statistics ..................................................................................................................................................................................... 19

1.2. **COMMUNITY STRATEGIC FRAMEWORK** .............................................................................................................................. 20

1.2.1. EU policy in relation to Croatia ....................................................................................................................................................... 20

1.2.2. The EU’s legal framework .............................................................................................................................................................. 22

1.2.3. Croatia’s progress towards *acquis* compliance & readiness for EU membership ........................................................................... 23

1.2.4. Lessons learned from previous EU assistance ................................................................................................................................ 23

1.2.5. Concentration and coordination of assistance .......................................................................................................................... 23

1.3. **PARTNERSHIP CONSULTATION** ........................................................................................................................................... 24

1.4. **EX-ANTE EVALUATION** ......................................................................................................................................................... 27

2. **ASSESSMENT OF MEDIUM TERM NEEDS, OBJECTIVES AND STRATEGIC PRIORITIES** ................................................................. 29

2.1. **SOCIO-ECONOMIC ANALYSIS** (including SWOT analysis) ....................................................................................................... 29

2.1.1. Overview of the significant environmental factors .................................................................................................................. 29

2.1.2. Environmental sub-sectors ......................................................................................................................................................... 33

2.1.3. SWOT analysis ............................................................................................................................................................................. 44

2.1.4. Medium term needs and objectives in the waste management sub-sector .................................................................................... 46

2.1.5. Medium term needs and objectives in the water management sub-sector .................................................................................... 47

2.2. **STRATEGIC PRIORITIES** ....................................................................................................................................................... 47

2.2.1. Waste management ................................................................................................................................................................. 48

2.2.2. Water management .................................................................................................................................................................. 50

3. **PROGRAMME STRATEGY** ....................................................................................................................................................... 52

3.1. **PRIORITY AXES AND MEASURES** ...................................................................................................................................... 52

3.1.1. IPA objectives and priorities axes ...................................................................................................................................................... 52

3.1.2. General Selection Criteria ............................................................................................................................................................ 53

3.1.3. **PRIORITY AXIS 1 – DEVELOPING WASTE MANAGEMENT INFRASTRUCTURE FOR ESTABLISHING AN INTEGRATED WASTE MANAGEMENT SYSTEM IN CROATIA** ........................................................................... 54

3.1.4. **PRIORITY AXIS 2 – PROTECTING CROATIA’S WATER RESOURCES THROUGH IMPROVED WATER SUPPLY AND INTEGRATED WASTE WATER MANAGEMENT SYSTEMS** ............................................................................. 59

3.2. **PRIORITY AXIS 3 - TECHNICAL ASSISTANCE** ..................................................................................................................... 67

3.3. **HORIZONTAL ISSUES** ......................................................................................................................................................... 70

3.3.1. Equal opportunities for men and women ....................................................................................................................................... 70

3.3.2. Environmental Protection and Sustainable Development ........................................................................................................ 70

3.3.3. Participation of civil society and geographical, sectoral and thematic concentration ........................................................................ 71

3.4. **COMPLEMENTARITIES AND SYNERGIES WITH OTHER FORMS OF ASSISTANCE** .................................................................. 71

3.4.1. Complementarities and synergies with other SCF OP .................................................................................................................. 71

3.4.2. Complementarities and synergies with other IPA components .................................................................................................. 72

3.4.3. Complementarities and synergies with previous EU assistance and IFIs ..................................................................................... 74

3.5. **INDICATIVE LIST OF MAJOR PROJECTS** .............................................................................................................................. 80

4. **INDICATIVE FINANCIAL TABLES FOR THE ENVIRONMENT OPERATIONAL PROGRAMME** .............................................................. 89

5. **IMPLEMENTATION PROVISIONS** ............................................................................................................................................ 93

5.1. **MANAGEMENT AND CONTROL STRUCTURES** .................................................................................................................... 93
GLOSSARY OF ABBREVIATIONS

AP Accession Partnership
CARDS Community Assistance for Reconstruction, Development and Stabilization
CBS Central Bureau of Statistics
CEA Croatian Environment Agency
CFCA Central Finance and Contracting Agency for EU Programmes and Projects
CODEF Central Office for Development Strategy and Coordination of EU Funds
CW Croatian Waters
DABLAS Danube Black sea Task Force
DISF Danube Investment Support Facility
DG Directorate-General
EBRD European Bank for Reconstruction and Development
EC European Commission
EEA European Environment Agency
EEC Environmental Emission Cadastre
EIA Environmental Impact Assessment
EIB European Investment Bank
EIRR Economic internal rate of return
EPEEF The Environmental Protection And Energy Efficiency Fund
EPID Environmental Protection Operational Programme
EU European Union
EUR Euro
EUROSTAT Statistical Office of the European Communities
FIRR Financial internal rate of return
FWA Framework Agreement
GDP Gross Domestic Product
GHG Greenhouse gas emissions
IFI International financial institution
IPA Instrument for Pre-Accession Assistance
IPARD IPA Rural Development Programme
ISPA Instrument for Structural Policies for Pre-Accession
IWG Inter-ministerial working group
MAFWM Ministry of Agriculture, Forestry and Water Management
MBT Mechanical Biological treatment
MEPPPC Ministry of Environmental Protection, Physical Planning and Construction
MFAEI Ministry of Foreign Affairs and European Integration
MFIN Ministry of finance
MIFF Multi Annual Financial Framework
MIPD Multi-Annual Indicative Planning Document
NAO National Authorising Officer
NES National Environmental Strategy
NWMS National Water Management Strategy
NEAP National Environmental Action Plan
NIPAC National IPA Coordinator
NGO Non-Governmental Organization
NPIEU National Programm for the Integration of the Republic of Croatia into the European Union
NPIS Nature Protection Information System
NUTS French - nomenclature des unités territoriales statistiques - Nomenclature of Territorial Units for Statistics
OG Official Gazette
OP Operational Programme
PA Priority axes
P.E. Population equivalent
PEP Pre-accession Economic Programme
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPP</td>
<td>Purchasing Power Parity</td>
</tr>
<tr>
<td>RBMP</td>
<td>River Basin Management Plans</td>
</tr>
<tr>
<td>REReP</td>
<td>Regional Environmental Reconstruction Programme</td>
</tr>
<tr>
<td>RES</td>
<td>Renewable Energy Resources</td>
</tr>
<tr>
<td>RCOP</td>
<td>Regional Competitiveness Operational Programme</td>
</tr>
<tr>
<td>RWMC</td>
<td>Regional Waste Management Centre</td>
</tr>
<tr>
<td>SAA</td>
<td>Stabilization and Association Agreement</td>
</tr>
<tr>
<td>SAPARD</td>
<td>Special accession programme for agriculture and rural development</td>
</tr>
<tr>
<td>SEA</td>
<td>Strategic Environmental Assessment</td>
</tr>
<tr>
<td>SCF</td>
<td>Strategic Coherence Framework</td>
</tr>
<tr>
<td>SDF</td>
<td>Strategic Development Framework for 2006-2013</td>
</tr>
<tr>
<td>SINP</td>
<td>State Institute for Nature Protection</td>
</tr>
<tr>
<td>SWOT</td>
<td>Strengths-Weaknesses-Opportunities-Threats</td>
</tr>
<tr>
<td>TA</td>
<td>Technical Assistance</td>
</tr>
<tr>
<td>TS</td>
<td>Transfer stations</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development programme</td>
</tr>
<tr>
<td>UWTD</td>
<td>Urban Waste Water Treatment Directive</td>
</tr>
<tr>
<td>TOP</td>
<td>Operational Programme for Transport</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
</tr>
<tr>
<td>WFD</td>
<td>Water Framework Directive</td>
</tr>
<tr>
<td>WMC</td>
<td>Waste Management Centre</td>
</tr>
<tr>
<td>WMS</td>
<td>Waste Management Strategy</td>
</tr>
<tr>
<td>WWTP</td>
<td>Waste Water Treatment plant</td>
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</table>
The Republic of Croatia proposes to use the European Commission’s (EC) Instrument for Pre-Accession (IPA) to co-finance an Environmental Operational Programme (EPOP) under IPA Component III - Regional Development. The EPOP will cover a rolling three-year period 2007-2009 and build on previous investments and capacity building initiatives funded by earlier EU programme such as CARDS, ISPA and Phare.

The Operational Programme presented sets out the all key issues with supporting information – context; policy; analysis; objective and strategy to meet the needs. It also provides the indicators to monitor and evaluate performance and management and to implement a system to ensure the delivery of the objectives.

The general state of environment in Croatia is relatively good compared to the situation in EU industrial countries, mainly due to the low detrimental impact of the heavy industries (due to their collapse in the 1990s), and the country benefits from a number of natural advantages and strengths such as: unique and relatively well preserved natural environment, high level of biodiversity, high stores of fresh water etc. The natural environment is a crucial asset in Croatia's economic and social capital, and a driver of economic development, given its pivotal role in tourism in Croatia.

But on the other hand, the degree of environmental protection is lower than in other developed countries, primarily due to insufficient investment, and hence there are substantial investment needs across all environmental sectors, primarily in the heavy investment sub sectors of waste, water and air. These are mainly related to achieving the adequate provision of environmentally related services and standards regarding environmental protection, but also reaching a balance between a strong need for economic development and environmental protection, in other words, sustainable development, which is at the heart of the EU’s Lisbon and Gothenburg agendas. In order to focus Croatia’s actions, Croatia's National Environment Strategy (2002) identifies 13 priorities, of which the top three are waste management, water management and air quality. The recent strong output growth in Croatia is placing increasing demands on the environment and its infrastructure. The ongoing fiscal consolidation means that public resources for modernising infrastructure must be carefully managed, which reinforces the importance of well-founded environmental strategies, and the prioritisation and sequencing of infrastructure investments.

The IPA policy framework for Components III and IV - Regional Development and Human Resources Development respectively, is the Strategic Coherence Framework (SCF), which sets out how IPA funding may be used in Croatia's preparations for joining the European Union (EU) and is fully consistent with the EC’s Community Strategic Guidelines 2007-2013.

In addition to benefits related to preparation for membership - such as providing assistance for meeting acquis related obligations (“heavy investment directives”) and preparing to use the Structural Funds - activities under the EPOP will have a direct impact in terms of sustainable development and socio-economic benefits, through the promotion of employment, providing infrastructure for productive investments and raising the quality of life for residents.

The Environmental OP draws upon existing EU and national policies and strategies; the overarching policy document for preparation to join the EU is the Accession Partnership, which sets the short and medium term priorities, which are reviewed in the EC’s Annual Progress Report. Croatia has a well-developed hierarchy of environmental strategies, under the Strategic Development Framework 2006-13, particularly the National Environmental Strategy, National ISPA Strategy, various related sector strategies (energy, transport, planning etc), and strategies for environmental sub-sectors, including the Waste Management Strategy, and the Water Management Strategy (currently under parliamentary procedure).

The EPOP takes account of these strategies, while deriving its strategic objective from the SCF, namely:

“To protect and improve Croatia’s natural and living environment and environmental potential as a key element for future development, at the same time enhancing sustainability of energy systems especially by increasing energy efficiency and promoting renewable energy solutions.”

Since the priority set in the SCF is high-level, and hence very broad, the EPOP focuses on the objective to “To protect and improve Croatia’s natural and living environment and environmental potential as a key element for future development, at the same time enhancing sustainability of energy systems especially by increasing energy efficiency and promoting renewable energy solutions.”
“development” priority; the EPOP’s resources are limited, it cannot address all the issues that are encapsulated by the priority; therefore, and following national and EU strategic documents and related analyses, the EPOP has been designed to prepare Croatian institutions for EU accession and, following the principle of concentration, to make an impact upon the following priorities:

- To develop waste management infrastructure for establishing an integrated waste management system in Croatia;
- To protect Croatia’s water resources through improved water supply and an integrated wastewater management system.

Technical assistance for reinforcing administrative capacity for implementation of assistance delivered under the EPOP is an additional priority.

To achieve these priorities, the EPOP will invest in a series of “flagship” projects that will have significant environmental benefits. Those projects, in order to reflect the trajectory to the ERDF and Cohesion Fund, will be either of a large scale nature (above a 10m euro threshold) or smaller ones.

The expected impacts of the EPOP are two-fold:

- Development benefits - assistance in the achievement of EU acquis related standards and economic and social benefits; and
- Learning benefits - equipping Croatia with the institutional capacity to manage Structural Funds-type interventions; this capacity will give the institutions involved valuable experience in preparation for eventual EU membership and its associated responsibilities.

Therefore, it can be summarised that the operational objective of the programme, which will run for three years, is to:

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Therefore, it can be summarised that the operational objective of the programme, which will run for three years, is to:

“Improve access to, and the efficient delivery of environmental services and facilities in the waste and water sub-sectors”.

The Table below summarises the main elements of the Environmental Operational Programme and presents the ‘objective – priority axis – measure’ logic, which is central to the strategy.

ENVIRONMENTAL OBJECTIVES AND PRIORITIES FOR THE OPERATIONAL PROGRAMME

<table>
<thead>
<tr>
<th>National SCF environmental objective</th>
<th>EPOP Objective</th>
<th>Priority Axes</th>
<th>Meeting priority axes through investments to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect, and improve Croatia’s natural and living environment as a key element for future development</td>
<td>Improve access to, and the efficient delivery of environmental services and facilities in the waste and water sub-sectors</td>
<td>Developing waste management infrastructure for establishing an integrated waste management system in Croatia</td>
<td>Establishment of new waste management centres at county and regional levels</td>
</tr>
<tr>
<td>Protect, and improve Croatia’s natural and living environment as a key element for future development</td>
<td></td>
<td>Protecting Croatia’s water resources through improved water supplies &amp; an integrated wastewater management systems</td>
<td>Remediation of sites highly polluted by waste – (hot spots)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Construction of wastewater treatment plants for domestic and industrial wastewaters and upgrading the sewerage network</td>
<td>Establishment of modern water supply systems and networks</td>
</tr>
</tbody>
</table>

The following sections of this document set out the context, analysis, objectives and strategy, while also identifying indicative projects, and proposals for managing and implementing the EPOP.
1. CONTEXT, CONSULTATION AND COORDINATION

1.1. NATIONAL POLICY AND SOCIO-ECONOMIC CONTEXT

This section reviews the key economic statistics and trends facing Croatia and their implications for national environmental policy. It then reviews the hierarchy of strategy documents which govern environmental policy in Croatia from the Strategic Development Framework (SDF)\(^1\) through the National Environmental Strategy and other relevant sector strategies, to the specific investment and sub-sector management strategies - the National ISPA Strategy, the Waste Management and Water Management Strategy. It then summarises the key public institutions tasked with developing and implementing these strategies. Finally, it describes the status of Croatia's own legal framework.

1.1.1. Current situation\(^2\)

Croatia is generally considered to be a functioning market economy, which should be able to cope with the competitive pressures and market forces within the European Union in the short to medium term.

Its macroeconomic position is characterised by stable growth, an improving fiscal stance, low inflation, a stable exchange rate and a declining unemployment rate. The current key macroeconomic challenges are present in the framework of high external vulnerability (due to a large current account deficit and a high level of foreign debt) and relatively slow structural reforms.

Since the mid 90s, Croatia has witnessed a steady growth of GDP and in the period 1995-2006 the average real GDP growth rate amounted to 4.4%. The real annual GDP growth rate reached 4.8% in 2006. In recent years output growth has been driven by growth in domestic demand, in particular by growth in investments and personal consumption. Investments in fixed capital grew during the period between 2001 and 2006 by an average rate of 11.1% reaching the share of investments in GDP of 29.8% in 2006. During the same period the average growth rate of personal consumption was 4.8%. Similar trends continued in 2006 which recorded a real growth rate for investments in fixed capital of 10.9%, while personal consumption increased by 3.5%. Looking at the structure of gross value added per economic sector in 2006, it can be observed that the highest contribution was given by the tertiary sector (68.1%), followed by secondary sector (24.5) and primary sector (7.4). In 2005, GDP per capita amounted to 7,037 EUR in current prices, enabling Croatia to reach around 49% of EU-25 average\(^3\) (in purchasing power standards). In 2006 GDP per capita amounted to 7,704 EUR. According to Eurostat first releases in 2006, Croatian GDP p.c. measured in PPP was close to 50% of the EU-27 average, but if we include estimations of grey economy, Croatia comes close to 60% of EU average.

The Government, since 2004, has put the fiscal deficit on a downward path, improved transparency and budgeting processes, and reduced quasi-fiscal activities. Fiscal performance is reflected in the respective net reduction of the fiscal deficit from 4.8% to 4.0% of GDP (GFS 1986) in 2004 and 2005, and 3% of GDP in 2006. Such performance is mainly based on a strong revenue growth caused by vigorous economic performance and the increased efficiency of the Tax Administration in the collection of taxes (especially with regard to value added tax, corporate profit tax and personal income tax).

Croatia has had low inflation rates since 1994. Since then, average annual consumer price inflation has amounted to 3.4%. It increased considerably from 2.1% in 2004 to 3.3% in 2005 and fell to 3.2% in 2006. The higher inflation rates were primarily caused by an increase in the price of crude oil on the world market (which had a negative effect on the growth of domestic and import prices), as well as by the rise in food and administrative prices (e.g. increased prices of water, waste removal and beverages due to a new recycling charge on packaging).

\(^1\) Adopted by the Government of the Republic of Croatia on 3 August 2006.
\(^2\) Statistical data used in the document are those available in August 2007.
\(^3\) However, Croatian and EU statistics are not fully comparable since Croatia does not adjust GDP figures for the effects of the grey economy. Preliminary estimates of grey economy suggest that the official GDP figures should be adjusted which would bring Croatian GDP per capita expressed in PPP approximately to 52% of EU average in 2005.
The lasting track-record of low inflation is underpinned by the monetary policy determined by the Croatian National Bank whose primary objective has been low inflation. It is being supported by a stable exchange rate using a “managed float regime”. In the period between 2001-2006, fluctuations of the average monthly HRK/EUR exchange rate have not exceeded a narrow +/-4 % band. In the context of high “euroisation” within the Croatian financial system, the Croatian Central Bank is continuing to tightly manage the EUR/HRK exchange rate because it is the key instrument for curbing inflationary expectations in the country, and it also influences the stability of import prices from the euro-zone.

The unemployment rate, measured by ILO labour survey methodology, has continued its steady decline. In 2000 it amounted to 16.1% and kept falling to reach 12.7% in 2005. In 2006 it declined to 11.2 %. In 2005 the average net wage totalled 4.376 kunas (599,5 EUR) and in 2006 it increased to 4.603 kunas (630,5 EUR). The service sector is the leading area of job creation in Croatia.

Croatia is currently faced with challenges in the framework of external vulnerability. The Annual current account deficit rose from 5.1% of GDP in 2004, to 6.4% of GDP in 2005, increasing to 7.8% of GDP in 2006. Generally speaking the deficit was caused by lower growth of merchandise exports and increased growth of merchandise imports compared to the previous year and higher net factor payments to non-residents; while tourism revenues traditionally contributed to a surplus in services. Regarding foreign direct investment in Croatia, during 2006 Croatia received 2.7 billion EUR. Some of the largest FDI transactions took place in the last quarter of 2006 (e.g. initial public offering regarding 15% of INA stocks, recapitalisation of foreign owned banks). Overall inflow of FDI in Croatia since mid 1990 until the end of 2006 reached almost 14 billion EUR or 3,152 EUR per capita. A continual savings-investment gap led to high external debt which, at the end of 2006, amounted to 29.2 bn EUR; while the external debt to GDP ratio stood at 85.3%. In order to reduce external vulnerability and the external public debt, during last year the Government borrowed primarily through issuing bonds and treasury bills, or taking loans on the domestic market, thus, lowering its share in total external debt from 31.6% of GDP in 2004 to 22.8% in 2006. Consequently, the increase in the external debt was driven mostly by the external borrowing of other sectors (which include commercial banks and domestic enterprises).

Public debt is below the Maastricht criterion of 60%. General government debt amounted to 43.7% of nominal GDP at the end of 2005, while public sector debt (total general government debt without issued government guarantees) totalled 49.1% of GDP in nominal terms at the end of 2005. In 2006 these values fell to 40.8% of GDP and 46.4% of GDP respectively.

Regarding structural reforms, various positive steps can be noted, however, they have to be reinforced in order to further improve economic performance. This is why Croatian authorities introduced a series of measures: e.g. the introduction of e-Government – a service intended to speed up and improve communication between the Government, the business community and citizens; the expansion of hitro.hr (one-stop-shops) intended to reduce the time necessary to start up a company or a craft; the electronic registration of crafts, the electronic submission of specifications for payment of compulsory personal insurance contributions, access to all cadastral data and data from the land registry whose content has been adjusted with the cadastral data, as well as the electronic submission of VAT applications for commercial entities. Further positive examples include the establishment of entrepreneurial zones, a project focusing on streamlining and simplifying the legal framework connected with doing business in Croatia, as well as an incentive to decrease the tax burden of legal entities through a reduction of "hidden fees". Furthermore, the reform of health-care financing is under way, as well as the reform of social welfare focused on the consolidation of various social benefits and the simplification and better targeting of the whole system. The banking sector is continuously growing. An agency for the supervision of the non-banking financial sector was established at the beginning of 2006. Further privatisation of the state oil company INA was performed through an initial public offering of 15% of all its stocks. Capital markets have recorded a strong growth – the equity index of Zagreb stock exchange CROBEX grew 60.7% during 2006. The merger of the Zagreb and Varaždin stock exchanges executed at the beginning of 2007 should result in further opportunities for the development of the non-banking sector within the financial system.

In spite of these positive trends, many serious issues still have to be tackled. Further improvement of the business climate cannot be achieved without continuous cutting of red-tape, streamlining and the vigorous modernisation of the state administration, the reform of the justice system which should contribute to the enforcement of market entry and exit, as well as the enforcement of creditor and property rights. The restructuring and privatisation efforts should be continued, particularly in the area of shipbuilding, as well as in the framework of the remaining state-owned tourism companies.
The international donor community, of which the EU is the most significant, is active in supporting environmental expenditure and investment in Croatia. This support bolsters Croatia’s own expenditure and investment, which amounts to around 0.3% of GDP (see table 1.1).

Investment needs, as well as the figures for expenditure and investments, differ considerably among countries. For example in 2002 (table 1.1.), Croatian public sector expenditure and investment fell between Lithuania (one-third of Croatian levels) and Austria (two-thirds) on the one hand, and Ireland (which spends and invests 0.5% of GDP) and Hungary (which spends more than double Croatian levels), all four of which are medium-sized EU countries, with populations ranging from 3.4m to 10.1m, and need to spend and invest significantly in the environment sector. Croatian public sector expenditure and investment amounts to around 57% of the EU 15 level. An estimate for ex Candidate Countries shows that those countries needed to spend on average between 2% and 3% of the GDP in the years that followed for full implementation of the environmental acquis. 4

The most recent data from the Croatian Central Bureau of Statistics estimates that total public and private business entity investment in environmental protection was around €197.4m (0.64% of GDP) in 2005, which is a considerable increase compared with €80.2 m in 2001 (0.36% of GDP).

Table 1.1 Public Sector Environmental Expenditure and Investment (% GDP)

<table>
<thead>
<tr>
<th>Country</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU 25</td>
<td>0.56</td>
<td>0.58</td>
<td>0.53</td>
</tr>
<tr>
<td>EU 15</td>
<td>0.55(§)</td>
<td>0.58(§)</td>
<td>0.53(§)</td>
</tr>
<tr>
<td>Denmark</td>
<td>1.28</td>
<td>1.24</td>
<td>1.2</td>
</tr>
<tr>
<td>Lithuania</td>
<td>0.10</td>
<td>0.09</td>
<td>0.10</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.5</td>
<td>0.58</td>
<td>0.66</td>
</tr>
<tr>
<td>Austria</td>
<td>0.21</td>
<td>0.21</td>
<td>0.2</td>
</tr>
<tr>
<td>Ireland</td>
<td></td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Croatia</td>
<td>0.31</td>
<td></td>
<td>0.3</td>
</tr>
</tbody>
</table>

Source: Eurostat

Past and current environmental investments in Croatia are not sufficient although a significant improvement has been made by investments from the Environmental Protection and Energy Efficiency Fund through co-financing the remediation / closure of municipal landfills starting from 2004. In the Accession Partnership with the Republic of Croatia, the medium term priorities are to increase investments in environmental infrastructure, with particular emphasis on wastewater collection and treatment, drinking water supply and waste management and to develop an environmental investment strategy based on estimates of the costs of alignment.

It has been estimated that Croatia will need to invest around 7.94 billion euro, in the water and waste sectors alone, which represents a considerable investment needed to comply with the acquis. These investment figures are best estimates. However the recent 2002 CARDS project has produced considerably lower estimates of the investment required, particularly in the waste sector. The reason for this is the application of a different methodology.

In the water sub sector the CARDS 2003 project: "Approximation of Water Management Legislation with EU Water Acquis" will produce: legal, institutional and financial assessments and recommendations for EU Water Directives; a Compliance Plan for the Wastewater Treatment Directive; and a draft Strategy and Action Plan for Approximation of EU Water Acquis. The project started in May 2006 and will last 18 months.

Within the project entitled "PHARE multi-country programme on Environment and Enlargement in 2005" (beneficiary countries: Bulgaria, Croatia, Romania and Turkey) a sub-project "Developing the capacity of environmental authorities through transfer of best practice and training to support the effective use of financial resources", launched by the EC in 2005, started in November 2006 and will continue through 2007. It is expected to contribute to the elaboration of a national Environmental Financing Strategy. The Strategy will focus on investments for the 3 main environment sub-sectors: water, waste and air quality which are to be financed by the public sector. The directives that would be covered refer to: bathing water, dangerous substances to water, drinking water, nitrates, sewage sludge, urban wastewater treatment (Water Framework Directive), hazardous waste, landfills, packaging waste, and large incineration plants (Air Quality Framework Directive). Preparation of the first draft of the document is planned in October 2007.

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4 The estimate of the European Commission services; Communication from the Commission. The Challenge of the Environmental Financing in the Candidate Countries, COM (2001) 304 Final
Policy expectations in the short to medium term period

The key challenges in the next three years which remain are tackling external vulnerability, structural reforms and further fiscal consolidation. This is especially important in the framework of the high costs connected with the accession process, whose exact measure and level remain to be defined precisely, as the negotiation process goes on and the exact requirements become better known and perceived.

According to the Pre-accession Economic Programme 2007–2009 and Economic and Fiscal Policy Guidelines 2008-2010, adopted by the Government at the end of 2006 and mid 2007 respectively, the Government plans a set of policy measures aimed at reducing fiscal deficit, public debt and external debt as well as reinvigorating privatisation process. On the expenditure side, it will continue with the planned reform of the health insurance and social benefits and the planned reforms in the area of privatisation of large state-owned enterprises.

In order to develop domestic yield curve and to reduce external vulnerability, the Government will continue primarily borrowing on the domestic market. On the income side, it plans to step up the reforms in the process of tax collection in order to improve its efficiency. The foreseen structural reforms should result in the reduction of the general government expenditures according to GFS 1986 methodology (from 47.8% of GDP in 2006 to 43.1 % of GDP in 2010) as well as the reduction of general government deficit from 3.0 of GDP in 2006 to 0.5% of GDP in 2010. Furthermore, the reduction of public debt (sum of the general government debt and the guarantees) is projected from 46.4% of GDP in 2006 to 37.1% of GDP in 2010 (source: Economic and Fiscal Policy Guidelines 2008-2010). Monitoring of the International Monetary Fund will be limited to the Article IV consultations, which are to take place once a year, however, it is expected that the monitoring of the European Union will become more intense as the accession process goes on. The Government plans to establish policy credibility by moving forward with fiscal consolidation and necessary structural reforms, but of the outmost importance is creating a business-friendly environment that will turn investment interest into actual projects and create new jobs.

National policy context for the Environmental Protection Operational Programme

The natural environment is a crucial asset in Croatia’s economic and social capital, it is one of the main drivers of economic development, given its pivotal role in tourism in Croatia. Croatia has a well-preserved environment mainly due to the absence of heavy industrial pollution over recent years; it is distinguished by a great biological and geographical diversity and it has relatively abundant fresh water supplies. However, the level of environmental protection is in general lower than in the EU.

As noted, Croatia has enjoyed strong output growth since the 1990s, which is partly the result of its highly attractive environment and the generation of tourism revenue, but it also reflects increased private consumption and investment. Paradoxically, this places increasing demands on Croatia’s environmental infrastructure, presenting a set of challenges that need to be managed efficiently and effectively. In particular, there is an increasing demand for high quality and reliable environmental services: water supply and the disposal of waste water, the management of solid waste, retaining a clean air environment and preserving the natural habitat. The ongoing fiscal consolidation and planned policy measures to reduce public debt mean that public resources for investment in modernising and maintaining infrastructure must be carefully managed to maximise effective spending and value for money. This emphasises the importance of well-founded environmental strategies, the prioritisation and sequencing of infrastructure projects, and maximising the contribution of IPA and other sources of funding.

Sustainable development offers to each country and at a global level, a positive long-term vision of a society that is more prosperous and more just, and which promises a cleaner, safer, healthier environment - a society which delivers a better quality of life for us, our children and future generations. Achieving this in practice requires that economic growth supports social progress and respects the environment. Environmental protection requirements must be integrated into all relevant sectoral policy areas (transport, energy, agriculture, tourism, etc.). This means that environmental protection should be an integral part of transport infrastructure development, as well as of energy, agriculture, and industrial development. Besides the preservation of the biological and geographical diversity, the Adriatic seacoast and islands and the corresponding municipal infrastructure, such as water supply, sewage and waste water treatment infrastructure and waste infrastructure, are preconditions for the long term development of tourism and overall development. The key facet of environmental protection is environmental management which is, in-turn, multi-faceted, covering a wide range of complex and interlinked sectors and activities – water and waste management, air pollution, natural habitat /nature
protection, biodiversity, noise, industrial pollution, and chemicals. Sustainable development is therefore integral to Croatia’s environmental policy and strategy framework. In the introduction to the National Environmental Strategy it is stated that the concept of sustainable development should become a predominant determinant of the development strategy of the Republic of Croatia which will enable to the future of environmental protection to be seen in a different way and in a much wider context than earlier.

The hierarchy of strategy documents that determine the national environmental policy framework in Croatia is as follows:

- the overarching document is the Strategic Development Framework 2006-2013 (SDF);
- the National Environmental Strategy (NES) and National Environmental Action Plan (NEAP); and
- NES is subsequently supported by sub-sector strategies, such as the National Waste Management Strategy and the draft National Water Management Strategy, as well as the National ISPA Strategy for Environment.

The Strategic Development Framework 2006-2013 (SDF)\(^5\), adopted in August 2006, defines “growth and employment in a competitive market economy acting within a European welfare state of the 21st century” as Croatia’s strategic goal. Moreover, it defines the national development goals and identifies 10 strategic areas in which simultaneous and coordinated actions are required to achieve the specified development objectives. One of those areas is “Space, Nature, Environment and Regional Development”; moreover the preservation of the environment and balanced regional development are considered to be key elements of sustainable economic growth.

Besides the SDF, Croatia’s basic development orientations have been defined in socio-economic development documents and sector strategies and plans. The sector strategies relevant to the environment sector are:

- National Environmental Strategy (2002);
- Physical Planning Strategy of the Republic of Croatia (1997);
- Transport Development Strategy of the Republic of Croatia (1999);
- Energy Development Strategy of the Republic of Croatia (2002);
- Agriculture and Fishery Strategy (2002); and

The National Environmental Strategy\(^6\) is the key document for the environment sector; it demonstrates that environmental pressures come from all economic sectors. However of particular importance are transport (user structure, infrastructure construction, fuel quality), energy (emissions, transfer, waste and use of fossil fuels), industry (emissions and wastewaters), tourism and partly agriculture (use of artificial fertilisers, pesticides). The environment and its loads and pressures not only affect the quality of life for residents, but equally also the attractiveness of Croatia as a tourist destination and its international perception as a country with a preserved environment and producing healthy food. Therefore, it is of wider importance that timely and effective solutions to the problems in the environment sector are found; improving the environmental infrastructure can solve the primary problems of waste management and water resources.

The NES has the following national long-term environmental objectives:

- Conservation and improvement of water, sea, air and soil quality;
- Conservation of the current state of biological diversity;
- Preservation of natural resources, particularly the integrity and features of special natural assets (sea, coast and islands, mountain areas, etc.).

The main national strategic documents for the waste and water management sectors are the Waste Management Strategy (OG No. 130/2005) and the Water Management Strategy. The Waste Management Strategy was adopted in October 2005 and establishes the framework for waste reduction and sustainable waste management. The Water

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Management Strategy is currently under Parliamentary procedure and will provide the strategic framework for the sustainable use of water resources in the country.

The **National Waste Management Strategy** (2005)\(^7\) assesses the situation, identifies the problems and obstacles and sets the main waste management objectives for the period 2005-2025; these goals include:

- Development of an integrated waste management system;
- Establishment of county and regional waste management centres (up to 21);
- Remediation and closure of existing landfills;
- Remediation of sites highly polluted by waste – hot spots; and
- Improved information and reporting systems for the waste management system.

The Waste Management Strategy regulates the management of different types of waste on the territory of the Republic of Croatia, from its generation to final disposal, with the basic aim of achieving and maintaining an integrated waste management system, which will be organised in line with contemporary European requirements and standards. The purpose of an integrated waste management system is to avoid to the maximum extent, (i.e., reduce) the generation of waste, to minimise the adverse impacts of waste on the environment, climate and human health, and to harmonise the entire waste management system with the principles of sustainable development.

The Waste Management Strategy will be implemented through a **National Waste Management Implementation Plan**,\(^8\) which was adopted on 19th July 2007 by the Government of the Republic of Croatia and will be valid for a period of 8 years. The relevant county waste management plans, which have been developed or are in the development stage will elaborate, in accordance with the National Plan, the individual project details and how they fit into the county / regional integrated waste management system.

The **(draft) Water Management Strategy** is the fundamental and national long-term strategic water management document for Croatia. It establishes a unified water management policy and an integral and coordinated approach to improving the water system in line with international commitments. It also defines strategic goals, establishes current and future needs and services, and identifies how they might be met through management plans for the 4 river basins in the country.

Other strategic documents and implementation plans have been adopted in 2007, or developed/under development, and will be completed and adopted in 2007; these include:

- National Action Plan for the Protection and Improvement of Air Quality (draft prepared);
- National Strategy and Action Plan meeting the obligations under the Framework Convention on Climate Change and the Kyoto Protocol (draft prepared);
- Strategy on Sustainable Development (under development);
- National Action Plan (NAP) for the Protection of the Mediterranean Sea against Pollution from Land-based Sources;\(^9\)
- National Water Protection Plan;
- Proposals for implementing the Water Framework and Drinking Water (phase I) Directives;
- Draft Implementation plan for the Urban Waste Water Treatment Directive (phase I); and
- Draft Programme for the construction of urban wastewater sewerage systems and definition of the vulnerable areas (phase I).

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\(^7\) Adopted by the Croatian Parliament on 14 October 2005 (Official Gazette of 2 November, No 130/2005)

\(^8\) Official Gazette of 16 August 2007, No 85/2007

\(^9\) Accepted by Interministerial Committee and UNEP/MAP. To be adopted by the Government of the Republic of Croatia by the end of 2007.
The National ISPA Strategy for Environment (2005), which is the first investment strategy for the country, identifies priority waste management, water supply, sewage and wastewater treatment investment projects; this was the basis for Croatia's investment planning for the use of 30M€ allocated to the country under ISPA for the period 2005-2006 (more details in section 3.4.3.). These funds will make a limited contribution to meeting the full and substantial needs of Croatia in these policy areas. However, the indicative list of 26 projects in the National ISPA Strategy represent the priority investments for the water and waste management sectors, which will contribute to meeting the obligations of the heavy-investment directives within the EU environmental acquis. The list has been up-dated and the “long list” of projects for IPA investments, and their state of readiness is described in section 3.5 of this Programme.

All projects financed under the EPOP must fully respect compliance with sustainable development principles and meet relevant environmental norms, in particular directives on EIA, Habitats and Birds (in order to avoid negative impacts on potential NATURA 2000 sites) and the relevant environmental aquis. Investments in the environmental sector will be planned using integrated and strategic approaches, in particular in line with the basin approach and waste management planning. The projects to be financed must be appraised on a case by case basis in order to be coherent with the relevant obligations on the environmental aquis.

The following sub-section describes the key institutions in Croatia responsible for preparing and implementing these strategies, programmes and plans, at national, county and municipal levels.

1.1.4. Institutional framework

On a general level, responsibility for environmental policy lies mainly with the following two ministries:

✓ The Ministry for Environmental Protection, Physical Planning and Construction (MEPPPC) is the central government body responsible for environmental protection. It is, among other activities that fall within its competence, responsible for administrative and other affairs relating to general environmental protection policy, waste management; air protection, climate and ozone layer protection; environmental impact assessment; environmental contingency plans as well as sea and coastal zone protection and soil protection. It performs: coordination tasks, expert development and participates in the development of strategic documents; it carries out activities related to the process of EU integration in the environmental sector; environmental protection inspection; promotion of environmental education and research in connection with environmental protection.

✓ The Ministry of Agriculture, Forestry and Water Management (MAWFM) performs administrative and other tasks related to the management of water and the water management system; monitoring and adapting water management development to the needs of economic development; regulation of watercourses, protection from adverse effects of water and ice and from erosion and flooding, land drainage and irrigation; management and use of the water estate; protection of water and sea from land-based pollution; securing water reserves; the use of hydropower; planning and harmonising the development and construction of public water supply and sewerage systems of a national interest, as well as performing inspection activities.

Other government bodies concerned with environmental protection are: the Ministry of Culture, the Ministry of the Sea, Tourism, Transport and Development; the Ministry of Health and Social Welfare; the Ministry of Economy, Labour and Entrepreneurship; the Protection and Rescue State Directorate; and the Meteorological and Hydrological Service. In addition, a State Institute for Nature Protection has been established and it carries out activities related to the preservation and improvement of nature protection. In addition there is the Croatian Environment Agency which has the task of gathering and providing environmental data, the Environmental Protection and Energy Efficiency Fund and the Croatian Waters agency for water management.

More specifically, waste management responsibilities in Croatia are divided between the following institutions:

✓ The Croatian parliament and the Government of the Republic of Croatia are State Authority Bodies. The Parliament adopts the relevant legislation and national strategies, such as the Waste Management Strategy. A Parliamentary committee issues opinions on specific acts and documents. The Government adopts the waste

10 National ISPA Strategy was adopted in the course of 2005 by the ministerial collegiums of the Ministry of Environmental Protection, Physical Planning and Construction and Ministry of Agriculture, Forestry and Water Management i.e. institutions that have been in charge of the preparation of the Strategy.
The Ministry of Environmental Protection, Physical Planning and Construction is a State Administration Body (ministries, State Administration offices in the counties). In the waste sector, it is responsible for:
- Preparing new primary legislation and standards;
- Preparing the National Waste Management Strategy and National Waste Management Implementation Plan;
- Preparing implementing legislation;
- Approving reports on the state of the environment and the environmental protection programmes;
- Approving activities (interventions) based on environmental impact assessments;
- Issuing permits for hazardous waste management and the incineration of waste; and concessions for specific waste category management (used tyres, packaging waste, waste oils etc.);
- Hazardous waste management (implementation of measures);
- Inspection and supervision and enforcement of laws and secondary legislation;
- Monitoring the Croatian Environment Agency and Environmental Protection and Energy Efficiency Fund.

The Environmental Protection and Energy Efficiency Fund (EPEEF), established in 2003 and operating since the beginning of 2004, is an extra-budgetary institution owned by the Republic of Croatia, the purpose of which is to finance environmental protection programmes and projects; this also includes energy efficiency and use of renewable energy sources. The EPEEF collects different environmental charges as its own revenue, which includes charges for burdening the environment with hazardous and non-hazardous industrial waste.

The Croatian Environment Agency (CEA) is a public institution established by the Government in 2002. The CEA primarily collects, processes and provides data required for the efficient implementation of the environmental protection policy. It performs tasks related to development and coordination of the environmental protection information system. It prepares the report on the state of the environment (reports on waste management are a component of that report), which is endorsed by the MEPPPC.

The Counties and the City of Zagreb are regional self-government units, which are responsible for managing all types of waste in their respective areas, issuing waste management plans for their respective areas; gathering and submitting data on waste (cadastre of emissions into the environment, etc.); the state administration offices in the counties issue permits for non-hazardous waste management.

Towns and municipalities are local self-government units that are responsible for managing municipal waste, preparing waste management plans and determining locations in spatial plans for their respective areas.

The Public Utility Services Act sets down that public utility services (which encompass municipal waste management) can be performed by:
- Public utility companies established by local self-government units (local self-government units should own at least 51% of the company);
- Public institutions established by local self-government units;
- Organisational unit of local self-government units;
- Legal and natural persons on the basis of a concession agreement;
- Legal and natural persons on the basis of a contractual agreement.

Other stakeholders involved in waste management are companies registered and licensed for the collection and transport, recovery and/or disposal of waste, or for the management of special categories of waste, consulting firms, professional and non-governmental organisations.
Water management responsibilities in Croatia are divided between the following institutions:

- The **Croatian parliament** and the **Government of the Republic of Croatia** are State Authority Bodies. The Parliament adopts the relevant legislation and national strategies, such as the Water Management Strategy. A Parliamentary committee issues opinions on specific acts and documents. The Government adopts the river basin district management plans and proposes relevant legislation and strategies to Parliament.

- The **Ministry of Agriculture, Forestry and Water Management** is responsible for water policy in the Republic of Croatia. Under the Ministry of Agriculture, Forestry and Water Management (MAWFM) two directorates relevant to water management have been established: the Directorate for Water Management and the Directorate for Water Policy and International Projects. The Directorate for Water Policy and International Projects is responsible for affairs related to EU accession, and implementation of internationally funded projects in the water sector.

- **Croatian Water (CW)** is a State Agency responsible for water management. The tasks performed by Croatian Water are, as follows:
  - Preparation of the draft Water Management Strategy, draft river basin district plans and preparation and implementation of the water management plan;
  - Preparation of terms of reference, concept solutions, studies and investment programmes and reviewing of designs;
  - Regulation of watercourses and other water bodies and ensuring protection from the adverse effects of water - monitoring of the situation and the control of watercourses and other water bodies, organisation of protection from floods and ice, protection from erosion and torrents, the organisation of the construction, technical and economic maintenance of watercourses and water works;
  - Management of ameliorative irrigation and drainage systems - organising their construction, maintenance and utilization;
  - Water use - determining water resources, monitoring the status of water resources, adjustment of water use plans made by other legal entities and the monitoring of their implementation, and other measures for functional and rational water use;
  - Water protection - monitoring and determining water quality, organising the implementation of the National Water Protection Plan, coordination of water protection plans of local administrative units and other plans for investment in water protection, and monitoring their implementation, measures for prevention and elimination of water pollution;
  - Management of the public water estate;
  - Keeping water-related documentation and managing the integrated water information system;
  - Technical operations related to awarding concessions on water and public water estate;
  - Supervision of the implementation of terms and conditions stipulated by water rights acts and concession agreements (water management supervision);
  - Tasks related to the implementation of water management plans;
  - Supervision of the construction of water works.

CW’s responsibility covers the whole of Croatia through its five water management offices and 32 catchment areas. Croatian Water is accountable for their work to the competent Ministry, i.e. the Ministry of Agriculture, Forestry and Water Management.

At a local level, there are a relatively large number (143) of **municipal companies** responsible for public water supply in Croatia; similarly, public wastewater systems are managed by 130 **public utility (municipal) companies**, some of which are also responsible for water supply. The owners of these companies are local self-government units.
1.1.5. Croatia’s legal framework

Croatian legislation relating to the EPOP’s priority sectors (waste and water)\textsuperscript{11} is:

- The Environmental Protection Act (OG No. 82/94 and 128/99);
- The Waste Act (OG No. 178/04 and 111/06);
- The Water Act (OG No. 107/95 and 150/05);
- The Water Management Financing Act (OG No. 107/95, 19/96, 88/98 and 150/05).

The existing Environmental Protection Act is partly aligned with the \textit{acquis}; Final draft of the new “umbrella” law which will ensure further alignment was accepted by the Government of the Republic of Croatia on 13th September 2007 and submitted to the Croatian Parliament for the second reading and adoption. The New Environmental Protection Act will regulate all the horizontal issues that have not yet been addressed in the sectoral laws (including certain aspects of Environmental Impact Assessment (EIA), provisions related to Strategic Environmental Assessment (SEA), provisions on access to environmental information, and integrated pollution prevention and control). Secondary legislation to implement the primary legislation will be drafted to fully transpose the relevant EU legislation.

In November 2004, a new Waste Act (OG No. 178/04) was adopted which was amended in September 2006 (OG No. 111/06); it stipulates Croatia’s waste management objectives, which are:

- Avoiding and reducing the generation of waste and reducing the hazardous properties of waste;
- Waste recovery (recycling, reuse or through some other procedure that allows separating the raw materials, or use of waste for energy purposes);
- Waste disposal in the prescribed manner; and
- Remediation of the environment where polluted by waste.

The relevant provisions of Council Directive 75/442/EEC on waste, as amended by the Council Directive 91/156/EEC, Commission Decision 94/3/EC, Commission Decision 96/350/EC and Commission Decision 2000/532/EC have been transposed into the Waste Act. This Act also sets out the general legal framework for further approximation with EU legislation in the waste sector, which includes some secondary legislation that has already been adopted:

- Regulation on types, categories and classification of waste with a waste catalogue and hazardous waste list (OG No. 50/05)
- Ordinance on waste batteries and accumulators management (OG No. 133/06)
- Ordinance on packaging and packaging waste (OG No. 97/05 and 115/07),
- Ordinance on end-of-life vehicles management (OG No. 136/06)
- Decision on conditions for packages labelling (OG No. 155/05, 24/06 and 28/06)
- Ordinance on waste management (OG No. 23/07)
- Ordinance on the manner and procedures for the management of waste containing asbestos (OG No. 42/07)
- Ordinance on the manner and requirements for thermal processing of waste (OG No. 45/07)
- Ordinance on the criteria, procedure and manner of determining compensation to real estate owners and
- Ordinance on medical waste management (OG No. 72/07)

\textsuperscript{11} EPOP’s priorities are the waste and water sub-sectors due to the limited amount of funds available and the necessity for the concentration of assistance and being the two top priorities outlined in the National Environment Strategy (NES). Giving that air sub-sector is third NES’ priority, and along with water and waste makes the “heavy investment” environmental sub-sector, it might be considered for assistance in the next programming period.
The primary legislation for water management consists of two acts:

- The Water Act, (OG No. 107/95 and 150/05); and
- The Water Management Financing Act, (OG Nos. 107/95, 19/96, 88/98 and 150/05).

The Croatian Parliament amended these in December 2005. They are now partially harmonised with the Water Framework Directive (2000/60/EC); further harmonisation is envisaged by the end of 2008.

In addition to these two acts, representing the fundamental legal framework, water management in the Republic of Croatia is regulated by approximately 40 subordinate acts. The existing legal framework for water management needs to be harmonised with the EU acquis;

Relevant for this EPOP are:

- Regulations on special requirements to be met by legal persons carrying out waste water activities
- Regulations on special requirements for carrying out water supply activities
- Regulation on water classification
- Regulations on limit values of indices, hazardous and other substances in waste water
Croatia has signed and ratified a number of international water management treaties, these include:

- The Convention on the Protection and Use of Trans-boundary Waters and International Lakes (OG – International Treaties No. 4/96);
- The Convention on Co-operation in the Protection and Sustainable Use of the Danube River (OG – International Treaties No. 2/96); and
- The Framework Agreement on the Sava Catchment Area (OG – International Treaties No. 14/03).

There are also important bilateral agreements on water management co-operation signed with the Republic of Hungary, the Republic of Slovenia and the Republic of Bosnia and Herzegovina.

1.1.6. Horizontal Issues

The general concept of 'sustainable development', which encompasses all the horizontal issues, is incorporated into all the OPs and each one describes how it will be integrated through specific measures. They are consistent with the EU sustainable development strategy and Croatia is committed to a continuous improvement of the quality and protection of its environment (including the creation of sustainable communities with the capacity to manage and use resources efficiently and to 'tap into' the ecological and social innovation potential of the economy). For Croatia, the priority is to meet EU environmental 'norms' and standards; therefore, the EPOP will co-finance environmental investment related projects. Other OPs will integrate environmental protection considerations into other investment projects, notably transport infrastructure.

"Horizontal themes" are integrated directly into the EPOP because environmental protection is a core and inherent component of sustainable development. It describes specific measures that will address the environmental 'theme'. Specific indicators are identified in the EPOP and it describes how these 'themes' will be integrated in a systematic and targeted manner and how they will be monitored through reporting on the results achieved in respect of each 'theme', through specific indicators. Horizontal issues are further elaborated in section 3.3.

1.1.7. Statistics

Waste management

In the waste sector data used in the EPOP relies on several data sources: the Croatian Environment Agency – CEA (derived from Environmental Emission Register), Croatian expert institutions and firms, the Environmental Protection and Energy Efficiency Fund and the MEPPPC. The data presented for waste management is estimated because only a few cities/municipalities provide data on actually measured (weighted) quantities of waste. The quantification of municipal waste is primarily done by means of visual assessment. The data collection system in Croatia has to be improved in accordance with the already developed legal basis. This is one of the goals set in the National Environmental Strategy and National Waste Management Strategy.

Water management

In the water sector the data used in the EPOP relies on several data sources: the National Water Management Strategy (2007), MAFWM, Croatian Water, the Croatian Central Bureau of Statistics (Statistical Yearbooks) and EUROSTAT. The data collection system in the water sub-sector in Croatia has also to be improved on the basis of the existing legal framework.

The environment sector and environmental policy correspond to the national level, rather than regions, and the data provided in the EPOP refers to the national level (NUTS I).
1.2. COMMUNITY STRATEGIC FRAMEWORK

This section considers the EU’s policy in terms of the environmental aspects of the Lisbon agenda and the Community Strategic Guidelines, and its relationship with Croatia through the Stabilisation & Association Agreement and the Accession Partnership. It then sets out the EU’s legal framework in terms of the various directives which Croatia is currently seeking to fully transpose before summarising Croatia’s own legal framework alignment with the *acquis* and readiness for accession.

It then describes how the proposed priorities of the EPOP are consistent with the principle of concentration and refers to the coordination of assistance. Finally, it gives an overview of envisaged environmental expenditures and investments.

1.2.1. EU policy in relation to Croatia

The EU is committed to sustainable development, and its development policy, including the cohesion policy, is driven by the **Lisbon Strategy** (Economic Development Strategy) and the Lisbon Community Programme (Growth and Employment Agenda); these were revised following a mid-term review in 2004. In this context, the framework for the use of Structural and Cohesion Funds is provided in the Communication *Cohesion Policy in Support of Growth and Jobs*, **Community Strategic Guidelines**, 2007-2013, which sets “strengthening the synergy between environmental protection and growth” as one of the Community priorities (under Guideline A: Making Europe and its regions more attractive places to invest and work) for support under Cohesion policy and achievement of the Lisbon strategy goals.

The EU’s strategic objective for the next decade is to become the world’s most competitive and dynamic knowledge based economy, capable of achieving sustainable economic growth with more and better quality jobs and higher social cohesion. Environmental protection/sustainable development is included among the four priority fields for raising the level of EU competitiveness, and in this area, the set targets are oriented towards reducing greenhouse gas impacts, the increased use of electricity from renewable sources, a reduction in road transport volumes, noise and pollution reduction, etc. In order to achieve the planned targets, major significance is attributed to all forms of technology that is more environmentally acceptable, as compared to the respective alternatives.

One of the EU objectives is that regions should become places more attractive for investment and business; therefore the future harmonisation programme (the cohesion programme) must strengthen the synergy between environmental protection and growth. In this regard, a high priority shall be given to the provision of environmental services; these include infrastructure for waste and waste water treatment, natural resource management, decontamination of polluted land to prepare it for new economic activities, and protection from certain environmental risks (through the promotion of natural resource management, better use of ICT technologies, focussed research, etc.). The promotion of investments also contributes to the Kyoto Protocol commitments, by increasing the contribution to environmental protection and growth and jobs.

The relationship between Croatia and the EU was first governed by the **Stabilisation and Association Agreement (SAA)**, which was signed in October 2001, and came into force in February 2005. The SAA provides the legal framework for political dialogue, regional cooperation, economic relations and the use of Community financial assistance.

The SAA states that: “many ecologically fragile areas of a high biodiversity value are being degraded due to unsuitable development or encroachment into protected areas”. It notes that the public does not seem to be concerned about existing or potential environmental problems and “civil society has so far had a minimal impact in field of environmental protection”. In the six years since the SAA highlighted these issues and the lack of resources to tackle them, the Croatian authorities have paid more attention to these issues by increasing public expenditure on the environment and strengthening relations with civil society. On an international scale, co-operation has improved, particularly with regard to water protection in the Danube and Black Sea regions - as this remains a priority.

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12 Council Decision 2006/702/EC
14 With regard to the contents of this Operational Programme, Croatia will ensure the proper implementation of the commitments specified in Title VI of the SAA in the area of competition policy, including State aid.
In April 2004, the Council of the European Union adopted the European Partnership with Croatia. In June 2004, following the Commission’s positive opinion on Croatia’s application for membership, the European Council ratified Croatia’s application to become a member of the EU, and formal accession negotiations began in October 2005. In February 2006, the European Partnership was updated (on the basis of the Commissions progress report on Croatia of 2005) to an Accession Partnership (AP) that reflected Croatia’s new status as a candidate for EU membership.

The AP sets short-term and medium-term priorities for environmental protection.

**Short-term priorities:**

- Continue to develop horizontal legislation, including that concerning environmental impact assessment and public participation.
- Clearly define the responsibilities and strengthen the administrative and operational capacity at a national and regional level to ensure planning, including the preparation of financial strategies.
- Urgently adopt and begin implementing a national waste management plan.

**Medium-term priorities:**

- Ensure the integration of environmental protection requirements into the definition and implementation of other sectoral policies. Develop an environmental investment strategy based on estimates of the costs of alignment. Continue to implement horizontal legislation.
- Continue work on the transposition of the EU acquis, with particular emphasis on: waste management, water quality, air quality, nature protection and integrated pollution prevention and control. Increase investment in environmental infrastructure, with particular emphasis on waste water collection and treatment, drinking water supply and waste management.
- Ratify the Kyoto Protocol to the United Nations Framework Convention on Climate Change.

In accordance with the SAA and AP, a plan for the transposition of the acquis into Croatian legislation National Programme for the Integration of the Republic of Croatia into the European Union (NPIEU) has been prepared on an annual basis since 2003. Since 2004 the NPIEU describes the legal and institutional framework of the environment chapter, the priorities in legislative harmonisation for the given year, administrative measures and budgetary allocations for their efficient implementation. The NPIEU for 2007, including the Environment chapter, was developed in 2006 and adopted by the Croatian Government in January 2007.

Additionally, Croatia prepared the Pre-accession Economic Programme (PEP) for the period 2005-2007, which was followed by an updated PEP for 2006-2008, and PEP for 2007-2009, with the objective to define the economic policies and reforms necessary for European Union accession. The latter provides a clear definition of the country’s mid-term economic policy, priorities and structural reforms planned for the three-year period. Its Environment Chapter (part of the ‘structural reforms’ section of the document) includes legislative and “non-legislative” measures to be implemented, which will have an impact on State Budget expenditure.

Croatia has prepared a Strategic Coherence Framework (SCF) which sets out the “Protection and improvement of Croatia’s natural and living environment and environmental potential as a key element for future development” as one of five objectives that should be achieved through activities supported by IPA Components III and IV.

This is consistent with the European Commission’s Multi-annual Indicative Planning Document (MIPD) which follows the same three-year planning horizon as the EPOP, and states that “Components III and IV aim at supporting Croatia in policy development as well as preparation for the implementation and management of the Community’s

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15 Council Decision 2006/145/EC
16 In the context of this Operational Programme note is to be taken of the COUNCIL DECISION of 20th February 2006 regarding the principles, priorities and conditions contained in the Accession Partnership with Croatia and repealing Decision 2004/648/EC which further specifies the necessary obligations concerning competition issues
18 Submitted to the Commission on 13 June 2007 and agreed in the letter REGIO/EMPL no. 6010 of 18 June 2007
cohesion policy, in particular regarding the European Regional Development Fund, the Cohesion Fund and the European Social Fund. In terms of pre-accession assistance under Components III and IV, priorities comprise acquis-related investment in environmental protection and European transport networks together with support to the productive sector, in particular to SMEs and to human capital formation. The main challenges in the environment sector are to improve the reliability of the water supply system, to ensure adequate treatment of wastewater in line with the EU standards, to improve waste management in order to avoid detrimental impacts on the environment and in the long term to prevent air pollution that may increase beyond the current level as a consequence of combustion processes and traffic increase.

The SCF and EPOP have also been prepared to be consistent with the Community Strategic Guidelines which set the “strengthening of the synergy between environmental protection and growth” as one of the Community priorities (under Guideline A: Making Europe and its regions more attractive places to invest and work in) for support under Cohesion policy and achievement of Lisbon strategy goals.

These frameworks and guidelines provide the context for the preparation of this OP – its analysis, strategy and proposed actions - along with the existing national policy and strategies on the environment, as described in Section 1.1.3.

1.2.2. The EU’s legal framework

The framework for the EU’s waste management policy is contained in the European Council Resolution on Waste Management Strategy (97/C76/01), which is based on the Waste Framework Directive (75/442/EEC) and other waste management legislation. There are three policy principles: waste prevention, recycling and reuse, and improving final disposal and monitoring. In the EU’s ‘Cohesion Policy to Support Growth and Jobs, Community Strategic Guidelines, 2007-2013’, Member States have agreed to maximise economic benefits and minimise costs by tackling environmental pollution at source. In the waste management sector, this implies focusing on waste prevention, recycling and biodegradation of waste that are cheaper and provide more jobs in comparison with landfill and incineration, the least favourable end-of-pipe solutions.

The most important Directives in the waste management sector are:

- Directive 2006/12/EC on waste;
- Waste Landfill Directive 1999/31/EC;
- Sewage Sludge Directive 86/278/EEC;
- Incineration of Waste Directive 2000/76/EC;


The EU’s water policy is based upon the Water Framework Directive (WFD), which seeks to impose an integrated water basin management regime in Europe. This is an overarching system designed to protect all waters and it sets clear objectives, so that a “good status” must be achieved for all European waters by 2015 and that water use will be sustainable throughout Europe.

The most important Directives in the water management sector are:

- Water Framework Directive (2000/60/EC);
- Urban Waste Water Treatment (UWWT) Directive (91/271/EEC, 98/15/EC); and

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1.2.3. Croatia’s progress towards acquis compliance & readiness for EU membership

Croatia is negotiating EU membership. The results and developments of that process present extremely important guidance for future activities in any given sector. Developments with regard to acquis compliance and to the priorities set in the Accession Partnership are reviewed yearly through the European Commission’s regular Progress Reports.

The National Programme for Integration into the EU for 2007 (NPIEU 2007) was adopted in January 2007. Under the Programme, it is planned to adopt 46 legislative acts across the entire Environmental sector, including a new Environmental Protection Act on the basis of which a series of implementing legislation will be further developed and adopted. In the waste management sub-sector, a series of implementing legislation, which will regulate different waste streams, are planned for adoption in 2007 with a view to achieving full transposition in 2008. As planned within NPIEU 2007, Croatia ratified the Kyoto Protocol in April 2007 and will also adopt further legislation in the air sector aligned with the acquis. It is intended to achieve full transposition of the environmental acquis by the end of 2008. NPIEU 2007 envisages a number of non-legislative measures, which includes an increase of the number of employees in state level institutions within the environment sector.

1.2.4. Lessons learned from previous EU assistance

Based on the experience in project implementation and the utilisation of EU funds, the following is an outline of the main issues relevant for the future implementation of pre-accession assistance:

- Croatian programme and project management capacity is evolving; practical experience gained so far needs to grow and become embedded in future EU funds management. So far the insufficiently developed institutional capacity at a national and sub-national level has proven to be the greatest obstacle for project implementation. Therefore the improvement of technical assistance and capacity building at all administrative levels must be secured;
- It is essential to have skilled and motivated staff and further efforts are needed to identify, train, develop and retain a body of such staff;
- An inadequate and unprepared project pipeline is an obstacle to the utilisation of assistance. Therefore the preparation of a sufficient number of well designed and mature projects (in particular regarding project design and tender documentation) is paramount to ensure the use of EU assistance in a timely and technically acceptable manner. This issue is directly linked with the need for strengthening the capacity at all levels, but particularly of the final beneficiaries in order to prepare good project/tender documentation in a timely manner;
- It is necessary to improve time management and quality assurance in all institutions, as well as to improve implementation capacity (tendering and contracting);
- The importance of coordination between stakeholders. This requires extensive and clear information flows with a focus on a common understanding of tasks, timeframes and interdependencies;
- The necessity for access to and the dissemination of information in timely manner (to all interested parties) and greater emphasis on publicity measures (both EU assistance and sectoral co-ordination in general).

1.2.5. Concentration and coordination of assistance

As previously highlighted, the overall aim of assistance provided through Strategic Coherence Framework is to ensure that the relevant institutions of the Republic of Croatia develop institutional capacity and gain practical experience with the management of Structural Funds-type interventions, thereby achieving readiness for eventual EU membership. IPA is seen as a bridge to eventual Structural Funds management; it is a tool, or mechanism, that will develop institutional capacity through the experience of programming and implementing Components III and IV (in the case of EPOP). Additionally it is proposed that IPA Components III and IV should have the same Operating Structure as for the Structural Funds.

The SCF and its OPs seek to strike a balance between maximising the learning benefits for Croatia’s institutions and concentrating activity in order to maximise impact, based on the finite resources of IPA. In that sense, the concentration of learning benefits is to be assured having in mind the limited resources available i.e. assistance must be used to provide as much experience as possible for the relevant institutions. The main tool through which this kind of concentration is to be assured is the possibility to propose not just large scale projects, but also those of a smaller size.
This will enable the relevant institutions to gain experience and prepare themselves, in terms of institutional / administrative / management capacity, for the Cohesion Fund (large scale projects) and Structural Funds (through small scale projects).

Secondly, concentration is to be secured on a sector basis. As described in section 1.1., environmental policy covers a wide range of issues with the heavy investment sub-sectors of waste, water and air being of particular interest. Due to the limited amount of funds available and the necessity to prioritise needs to achieve the maximum impact possible, the resources under the OP will be concentrated on two sub-sectors:

- waste management;
- water management (including both drinking and waste water).

In addition, geographical concentration will be secured at the water management sub-sector level. Since the greatest problems with water quality standards are in the Black Sea / Danube basin, and having in mind that water projects within the Adriatic River Basins are already the subject of assistance ("The Coastal Cities Pollution Control Project", financed by the IBRD, with the aim of improving the quality of recipient waters and providing better water services in the Adriatic basins, by upgrading sewerage and wastewater treatment systems), the majority of proposed projects are designed to improve the sewerage and wastewater treatment systems in the Black Sea / Danube basin. However, the project for water infrastructure improvement in the towns of Knin and Dnris, presented in the EPOP’s Indicative list of major projects, refers to the inland part of the Adriatic River Basin.

Activities related to the remediation of sites highly polluted by waste (hot spots) will be mainly concentrated in the Karst area, as ground water provides 90% of drinking water supplies in this area.

Concentration under each priority axis and measure, through setting up the relevant selection criteria, is set out in Section 3.

Overall coordination of the IPA programme in Croatia rests with the Central Government Office for Development Strategy and Coordination of EU Funds (CODEF). That part of CODEF’s mandate will ensure that the interventions financed under IPA are deeply embedded into the national development policies, ensuring strategic focus and added value of EU assistance. CODEF is also charged with coordinating the negotiations on Regional Policy and the Coordination of Structural Instruments.

1.3. PARTNERSHIP CONSULTATION

Activities commenced under the ISPA programme are to be continued within the IPA programme. Valuable experience was gained during the process of developing the National Environmental ISPA Strategy: contacts and meetings were held particularly with representatives of regional self government units regarding general information on the ISPA programme, its objectives and priorities, project eligibility and selection, preparation of projects and also the upcoming new programming period within the framework of IPA.

The EPOP has been prepared by an Inter-Ministerial Working Group (IWG) comprising representatives of the relevant state institutions and chaired by the Strategic Coordinator for Components III & IV. The membership is shown in Annex I; the programme of IWG meetings during 2006 was: 23 February; 21 April; 7 June. It has to be mentioned that permanent and intensive consultations were held among the members of the IWG during the first quarter of 2007

With regard to the projects presented in the EPOP’s Indicative list, consultations were held with various partners: within the CARDS 2002 project, drafts of two Feasibility Studies for Regional waste management centres “Lečevica” in Split-Dalmatia County, and “Badovinje rupe” in Dubrovnik-Neretva County were presented during workshops held in Split on 7-8th

21 The reason for inclusion of the respective project is twofold: firstly the CCPCP project financed by the IBRD is focused on the coastline and island areas (parts of the Adriatic basins), whereas the Knin and Dnriš project is located in the inland part of the Adriatic basin. Secondly this project is particularly significant due to the fact that is located in a sensitive area as defined in the draft Water Management Strategy (it will restore the quality of the Čikola and Krka rivers which run through the “Krka” National park
23 Public consultation process will have to be re-conducted if Environmental Protection Operational Programme will become subject of official revision(s).
November, 2006, and in Dubrovnik on 9th November, 2006. Two workshops were held in the presence of representatives of the Delegation of European Commission, MEPPPC, representatives of county authorities, towns and municipalities, waste management companies, NGOs and media from each of the counties. The workshops aimed to explain the proposals for the organisation and set up of regional waste management centres, legislation and planning assumptions, technical solutions, results of a social survey regarding affordability and the willingness to pay, results of financial, economic analyses and proposals for new tariffs. The workshops purpose was, among other things, to obtain support from municipal authorities and involve various stakeholders including civil society.

MEPPPC’s Minister and State Secretary along with the County officials presented the project entitled “Regional Waste Management Centre for Split-Dalmatia County” on 1st December 2006 in the municipality of Lečevica – the site of the future Centre. It was emphasised that the location of the future centre was carefully chosen from an environmental point of view, based on sound expertise and research work.

Also, MEPPPC held a formal meeting on 27th February 2007 with representatives and officials of the County of Primorje-Gorski Kotar (representative of the County Prefect Office, the County Institute for Sustainable Development and Physical Planning and the “Ekoplus”) municipal company, with regard to the preparation of the project entitled “Regional Waste Management Centre Marišćina”. Meetings with representatives of Istria County regarding the project entitled “Regional Waste Management Centre for the County of Istria” were also held in course of 2007. These two projects, along with the projects “Regional Waste Management Centre for the County of Split –Dalmatia” have been prepared for the 2007 -2009 IPA programming period (see the EPOP’s indicative list of projects).

The development of this EPOP was parallel to the development of the National Waste Management Implementation Plan, which is the main planning document for the up-coming establishment of new waste management centres at county/regional levels, which is the prime measure under the EPOP’s Priority axis 1. While defining the scope and other features of the new waste management centres, cooperation with the county’ authorities and experts was essential and constant, while joint consultation with county representatives took place on 11th April 2007 in Zagreb with a public presentation of the draft National Waste Management Implementation Plan by MEPPPC’s Minister and State Secretary. With regard to the location of future waste management centres, this is subject to the county physical plans which have to undergo a public hearing procedure before adoption. The National Waste Management Implementation plan accepts only those locations for new waste management centres which are determined by county physical plans. Further, consultations on the National Waste Management Implementation Plan were held on 16th May 2007 in Zagreb, with the participation of county representatives, during which IPA funding possibilities were also presented. Additionally, the draft National Waste Management Implementation Plan, along with the proposed Environmental Protection Act and Building and Physical Planning Act were presented during June 2007 in Primorje-Gorski Kotar County, Koprivnica-Križevci County, Medjimurje County and Istria County, and during in July those documents were presented in Split-Dalmatia County, Dubrovnik-Neretva County and Virovitica-Podravina County. Subsequently, the National Waste Management Implementation Plan was adopted by the Government of the Republic of Croatia on 19th July 2007.

Activities related to partnership consultations in the framework of the IPA programme for the water sub-sector, i.e. related to the projects on the EPOP indicative list, were conducted by means of field trips and a series of discussions of the Ministry of Agriculture, Forestry and Water Management and Croatian Waters with the representatives of local self government, counties and municipal companies for the projects nominated for implementation within this programme.

On 21st March 2007, the Ministry of Agriculture, Forestry and Water Management organised a presentation of the IPA programme and of this OP to identified partners: the Croatian County Association, the Society of Town and Municipality Associations of the Republic of Croatia; the Croatian Chamber of Commerce, the Croatian Water Supply and Sewerage Communal Companies Group; civil society representatives (NGOs “Zelena akcija”, “Sunce” and “Zeleni Osijek”). The presentation focused on the water management section of the EPOP and it took place at the Head Office of Croatian Waters, Ulica grada Vukovara 220, Zagreb. It was attended by some of the partners.

Since the Croatian Water Supply and Sewerage Communal Companies Group did not attend the meeting held on 21st March, a separate meeting and presentation of this Operational Programme for the Group’s members was held on 31st May 2007. Prior to this meeting, MAFWM had sent the second Draft of the OP to the Group. Around 40 representatives of utility companies attended the meeting. Comments and questions raised by the Group’s members referred to the project selection criteria and rationale for focusing on the Danube and Sava river basin projects. Subsequently, comments and questions were of such a nature that no changes or modifications were made to the OP.

Annex IV contains the minutes of the meetings held on 21st March and 31st May 2007.
Following the first meeting held on 21st March, and upon the request of the partners present at the meeting, MAFWM and MEPPPC agreed (by an exchange of letters) to send the second draft of the OP to the following partners: Croatian Water Supply and Sewerage Communal Companies Group (as mentioned above), Croatian County Association, Society of Town and Municipality Associations of the Republic of Croatia, Croatian Chamber of Commerce; and to the representatives of civil society: NGOs “Zelena akcija”, “Sunce” and “Zeleni Osijek”. The letter (with the second draft of the OP is attached) inviting partners to provide comments on the EPOP, was sent by MAFWM on May 10, 2007. The response received approved the EPOP. The NGOs that received the second draft of the OP did not have any additional comments.

During 4th Croatian Conference on Water with International Participation, which took place in Opatija, May 17-19, 2007, a Round Table meeting entitled “Croatian Water and the European Union – Challenges and Possibilities” was organised where the Ministry of Agriculture, Forestry and Water Management and Croatian Waters presented the second draft of this OP to the delegates of Croatian Chamber of Professional Engineer’s. The comments and questions that arose at that meeting also did not necessitate any modifications to the OP text.

The Ministry of Agriculture, Forestry and Water Management also organised, in particular, consultations regarding this OP with the first three nominated potential final beneficiaries identified as priorities in terms of infrastructure construction in the water sector, i.e. the proposed Slavonski Brod, Osijek and Knin and Dmiš Projects. A meeting took place in the Head Office of Croatian Waters, Ulica grada Vukovara 220, Zagreb, on April 4, 2007. Participants were informed about the activities which should be undertaken for the preparation of Applications and which should lead to the implementation of these nominated projects using IPA funds.

The 3rd draft of the EPOP was sent by the MEPPPC on 14th June 2007 to the NGOs “Zelena Istra” (Istria County), “Ekokvarner” (Primorje-Gorski Kotar County) and “Sunce” (Split-Dalmatia County) which are operating in the counties where proposed three WMCs are located. The NGOs were invited to provide comments to the draft and subsequently to attend a meeting to further discuss it. The meeting was held on 28th June 2007 in the MEPPPC premises, with the participation of representatives of “Zelena Istra” and “Sunce”, whereas Ekokvarner did not attend the meeting, nor did it provide any written comments to the EPOP. The NGO's comments and questions mainly focused on the projects from their respective counties. The NGO “Sunce” is of the opinion that in general WMCs are priority projects which will contribute to improving the situation regarding waste management, and is well aware of the activities regarding the establishment of a waste management centre (WMC) in the county of Split-Dalmatia. Nevertheless, they recommended conducting independent expert research to prove the acceptability of the chosen Lečevica site having in mind that it is in a karst area where the risk of pollution of the ground water exists [note by MEPPPC: independent expert research has already been conducted by the Croatian Geological Survey (Final Conclusion – September 2006). The research concluded that location of the future “Lečevica” WMC is situated in the class IV water protection zone of the river Jadro and there are no legal obstacles for the construction of the Centre in that zone. The EIA Commission accepted this research and also stated that the waste treatment technology that is going to be used in the Centre will prevent any pollution of the groundwater]. NGO “Sunce” as well pointed out that would be desirable to increase the transparency of the selection process for WMC locations in general. The “Zelena Istra” representative expressed concerns whether the establishment of the Kaštijun WMC will guarantee the introduction of an integrated waste management system in the County of Istria. “Zelena Istra’s” opinion is that planning to finance just the infrastructure of the Kaštijun WMC through the EPOP is not an integral solution. The EPOP should include also planning the establishment of recycling yards throughout the whole County, education, capacity building, etc. So far, “Zelena Istra” has stated, that the public information and participation activities at County level regarding the future Kaštijun WMC have been insufficient. “Zelena Istra” also asked for details regarding the timing of the EIA public hearing procedure for Kaštijun, expressing its interest to participate in it and hoped that the summer holidays will not affect any (proper) public response to it. Both “Zelena Istra” and “Sunce” suggested to the MEPPPC to provide comprehensive information to the general public about the WMCs in general, including the technology that will be used, i.e. to explain to the public that these will be modern facilities that will not have a negative impact on neighbouring areas. They also stressed the importance of awareness raising and education activities, suggesting the inclusion of them within the Operational Programme.
1.4. EX-ANTE EVALUATION

An ex-ante evaluation of the second draft of this OP was undertaken by an independent evaluation team during March and April 2007\(^\text{24}\). The evaluation comprised desk research and a series of meetings and interviews undertaken by both international and local evaluators.

The summary conclusions of the evaluation are as follows:

“The OP is well – structured, closely following the Commissions template for IPA OPs. It covers all the relevant issues, and is written in clear, comprehensible English. The OP includes a generally good analysis which provides a sound justification for the strategy, although additional information is required in some areas. The hierarchy of objectives, priorities and measures is logical and coherent with internal policies and EU policy objectives. Information is provided on the implementation and monitoring arrangements (although both require additional detail), as well as financial tables and an indicative list of major projects. In terms of environmental assessment, the OP clearly sets the context for the interventions, justifies the proposed interventions and has a high level of "environmental integration" and continuity.

It is worth noting that readability of the OP could be improved with some reorganization and editing of the text of the document, and there are some aspects of each section that could be improved. It is important that the relationship of the SWOT to the socio-economic analysis should be reviewed, to ensure that each of the issues listed in the SWOT is supported by the data/information in the analysis section. The multiple sets of “selection criteria” under some of the measures are confusing and could be misleading. The structure of monitoring indicators is still under development and no detailed appraisal of its validity has been possible. Some further attention could be given to specifying and measuring environmental impact at programme level. Consultations during the programme development phase were largely limited to discussions among members of the Inter-Ministerial working group. Implementation arrangements are still being developed, although the main organizational responsibilities are described. Consequently, further information is required on the division of responsibilities.”

Appraisal of the characteristics and effectiveness of environmental integration of the EPOP has been conducted (see Chapter 9 of the Ex-Ante Evaluation report) in accordance with the principle of Strategic environmental assessment in particular the information requirements as conveyed in Annex I of EU Directive 2991/42/EC on the assessment of the effects of certain plans and programmes on the environment with environmental integration being measured through the following terms: perception of environment, coherence with environmental policy and legislation, inclusion and application data, programme environmental impact and consultation process.

The result of the assessments presented in the Ex-ante evaluation report is the following:

“The Environmental OP clearly sets the context for its interventions, providing substantial and relevant information and drawing this material into a comprehensive SWOT analysis. The selection of priorities is justified and continues the logical concentration on issues identified in previous strategies and environmental initiatives. The level of environmental integration is very high, with environmental factors placed in a socio-economic context. Continuity of environment is excellent, through well-reasoned objectives, priorities, measures and indicative projects. Competent authorities will assess environmental impact at project level; however, at programme level, further attention could be given to specifying and measuring environmental impact, with benefits for the monitoring process. Scope exists for greater interaction between the Environmental OP information and activities and other OPs in IPA Components III and IV.”

The evaluators provided detailed recommendations for the improvement of the OP which were generally balanced and constructive and are taken into account in this version of the Operational Programme:

- The text was reorganised and improved in some parts like suggested which contributed to final text being more coherent and readable;
- The general review of environmental issues in Croatia was further developed; the text describing the situation in the waste sub-sector was improved so that it now provides more relevant data;
- The relationship between the information provided under the socio-economic analysis and the points highlighted in the SWOT analysis was strengthened;

\(^{24}\) Process of the Ex-Ante Evaluation will have to be re-conducted if the Environmental Protection Operational Programme will become subject of official revision(s).
• The selection criteria set were re-examined and revised in order to be more coherent and clear and with the accent being placed on the maturity of the projects;
• The indicators (at both Operational Programme and Priority axes levels) were not apprised in detail (in the ex-ante evaluation) due to the fact that at the moment the ex-ante evaluation was carried out they hadn’t been development sufficiently. However, the indicators were re-examined and slightly modified in order to achieve a higher level of relevance and quality. Additionally indicator values and data sources were determined;
• The suggested measuring of the environmental impact (impact indicators on the programme level) was appraised as very difficult due to the limited scale of the Programme;
• The public consultation process was mainly carried out in the period following the ex-ante evaluation, and more detailed information is provided.

A copy of the full ex-ante evaluation report is attached to the Operational Programme (Annex VI).
2. ASSESSMENT OF MEDIUM TERM NEEDS, OBJECTIVES AND STRATEGIC PRIORITIES

2.1. SOCIO-ECONOMIC ANALYSIS (including SWOT analysis)

2.1.1. Overview of the significant environmental factors

The Republic of Croatia is a Central European and a Mediterranean country located between the Danube river basin in the north and the Adriatic Sea to the south. Its total surface area is 87,661 km², of which the mainland covers 56,594 km², whereas coastal waters account for the remaining 31,067 km². The country is divided by two marine catchments areas, the Black Sea and the Adriatic Sea, each with two river basins: the Sava, Drava and Danube feed the Black Sea, and the Primorsko-Istrian and Dalmatian drain into the Adriatic. The adjacent map shows the varied biodiversity in the country and its close link to water habitats.

It’s geophysical location in Europe determines the environmental characteristics of the country, with the long coastal region, littoral highlands and the central plains. However, the dominant geological factor, the karst region, determines the most significant environmental issues in the country. Croatia’s karst region is a unique relief with special hydrogeological and geomorphological features where ground waters are much more abundant than surface water. The surface watersheds substantially differ from the underground ones and in which characteristic surface forms (limestone cracks, sink-holes, karst valleys, subsidence valleys, etc.) and underground forms (caves and pits) occur in tectonically fragmented, carbonate, evaporite or gypsum rocks.

The karst area occupies about 54%²⁵ of Croatia’s territory and it attracts the majority of tourists, thus contributing significantly to GDP. Today, this region’s highlands area boasts four national parks: Risnjak, North Velebit, Plitvice Lakes, Paklenica; and the Nature Park Velebit (smaller parts of karstic area are also included in Nature Parks Medvednica, Papuk and Žumberak-Samoborsko gorje), the coastal karst area also boasts four national parks: Brijuni archipelago, Kornati archipelago, Krka, Mljet and five nature parks: Ucka, Telascica, Vransko lake, Biokovo and Lastovo. The Velebit Mountain Range has been part of the UNESCO international biosphere reserves network since 1977 and is listed among the ten most important forest areas in the Mediterranean Region in the World Wildlife Fund’s "Gift to Earth" programme. The Plitvice Lakes National Park has been on the UNESCO World List of Natural and Cultural Heritage since 1979. These internationally recognised sites and the whole of the karst region are a crucial part of Croatia’s economic capital and must require specific care with the view to natural resource protection and sustainable development.

²⁵ Source: „An overview of the state of biological and landscape diversity of Croatia, with the protection strategy and action plan”, Zagreb, 2000
Croatia is in the process of establishing the Natura 2000 network. The country has a considerable wealth and diversity of flora, mycoflora and fauna. It has 65 diverse habitats, which are home to significant numbers of strictly protected and protected species; Croatian protected areas cover a land area of a total of 5,379.41 km² or cca 9.5% (compared to the EU-15 level of 12.4% in 2004). The major part of this area is protected as nature and national parks. Economic development will continue to exert pressure on the natural resources and biological diversity; and these protected areas need to be safeguarded.

The coastal water on the Croatian side of the Adriatic is of a high quality; moderately polluted are certain semi-enclosed coastal areas. So far between 6,000 and 7,000 of plant and animal species have been recorded in the Adriatic Sea. Pollution of the sea with dangerous substances is below the respective values. The sanitary quality of the sea water on beaches is high, in 2006, 98.94% of samples complied with the prescribed criteria.

Local soil pollution is present in areas of intensive industrial activity, inadequate landfills, mining, military activity or various incidents. Pollution of the soil by heavy metals, polychlorinated biphenyls and petrochemicals are mainly of a local character. The pronounced trend of soil acidification by acid rain has been slowing down in recent years, primarily due to a reduction in air emissions in Europe. Soil salination in the Neretva river valley has increased intensively, and the problem of the soil alkalisation is mostly restricted to the area of Eastern Slavonija and Baranja. Pedological drought, i.e. the lack of usable water in the soil, is on the rise.

The Croatian energy system is largely dependent on oil and natural gas. In order to support economic growth, energy imports are expected to substantially increase. Hydro-electricity represents a significant share of gross electricity consumption; on average over a ten year period, hydro-electric plants produced 34.7% of Croatia's electricity. Beside hydro-electricity, Croatia has relatively abundant renewable energy potential: wind, solar, biomass, geothermal, which has not been sufficiently used so far. In 2002, excluding large hydro plants, renewable energy sources (RES) constituted for 0.6% of electricity consumption. Croatia has set the minimum share of RES (without large hydro plants) to 1140 GWh/year in 2010, which will represent approximately 5.8% in the structure of total energy demands. Croatia uses cogeneration potential and the prediction is that it will satisfy 14.9% of her electricity needs by 2010 (mostly it refers to the high efficiency of cogeneration). There are two wind power plants operational in two Dalmatian counties while two more are being constructed. There is interest expressed in other counties along the coast for further construction. Croatia is planning to place on market 22,000 tonnes of bio fuels in 2007 while indicative target is 5.75% share of bio fuels by the end of 2010.

Most Croatian indicators show a reduction in the emissions of major air pollutants since 1990. In 2004, air emissions were considerably lower than in 1990 (SO₂ by 65%, NOₓ by 20%, CO by 38%, NMVOC by 20%, lead is 27 times lower, dioxane/furan by 42% and polycyclic aromatic hydrocarbons by 35%). Presently, Croatia meets the peak emission targets set down by the Protocol to the Convention on Long-range Transboundary Air Pollution, relating to a further reduction of sulphur emissions by 22 % in comparison to the 1998 value till the 2010.

The major sources of pollution are combustion processes, mainly large stationary sources (five thermal power plants and three refineries), as well as traffic.

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26 Annex I protected species in Croatia: 123 (100 regularly occurring) avian species, 20 mammals, 14 amphibians & reptiles, 44 fish, 31 invertebrates and 17+3 plants (figures will be changing)
The air quality is monitored at local and state level. Croatia has a local\textsuperscript{27} air quality-monitoring network, with 108 measuring stations operating in 32 towns or settlements; but this does not fully meet the statutory requirements. For example, the monitoring stations are not evenly distributed and do not cover all regions; but they do cover the largest towns, areas of high industrial activity and areas where possible trans-boundary pollution is expected.

A national state air quality monitoring network is being established with 8 monitoring stations in industrial/urban areas; and it is being developed and expanded to include the measurement of background pollution, regional and long-range trans-boundary transport and air quality measurement in protected areas. The PHARE 2006 project “Establishment of Air Quality Monitoring and Management system” envisages a further 12 stations added to the state network.

The Croatian Parliament ratified the Kyoto Protocol on 27\textsuperscript{th} April 2007.

Regulation (OG 1/07) on the monitoring of GHG emissions was adopted by the Croatian Government at the end of 2006, and is aligned with the Council Decision 280/2004/EC. It establishes a national system for the estimation of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol\textsuperscript{28}. There are also provisions for setting up the National Registry in line with Commission Regulation 2216/2004 for a standard and secure system of registries. A charge on the emission of carbon dioxide (CO\textsubscript{2}) was introduced in July 2007.

The main goals to be achieved in the air quality sector, according to the NES, are:

- The alignment of the existing legislation with EU requirements and other international commitments;
- The reduction of the existing emissions specially in regard to the transport sector;
- The upgrading of the emission and air quality monitoring system.

The general state of the environment in Croatia is good, especially compared to the situation in the EU industrial countries or in some neighbouring countries; this is largely due to low-levels of industrial production. However, the degree of environmental protection is lower compared to other developed countries, primarily due to the lack of public investment. Nevertheless, Croatia is determined to protect its environment and landscape, in balance with economic and social interests.

\textsuperscript{27} Local = counties, cities and municipalities, which have the potential to experience the worst pollution incidents.

\textsuperscript{28} Established under Article 5, paragraph 1 of the Kyoto Protocol
Croatia’s population numbered 4.437 million in 2001, which makes an average population density of 78 inhabitants per km² with slightly more than 69% of the population being urban; on the basis of these statistics, Croatia is one of the least populated European countries. The most densely populated part of the country is the northwest, which is inhabited by almost 40% of the total population in what is about 15% of the area of the country. A lower, but still above-average, population density is found in the easternmost, westernmost and southernmost parts of the country, whereas the vast central area, which covers 50% of the country, is considered demographically and economically “impoverished”.

Croatia is divided into 20 counties and the City of Zagreb; the counties contain 425 municipalities and 124 towns. Four cities, the capital Zagreb, and Split, Rijeka and Osijek, are inhabited by about 25% of the total population and represent the major urban and development centres with significant surrounding wider economic catchment areas. Other bigger towns (with over 30,000 inhabitants) are: Pula, Zadar, Šibenik, and Dubrovnik in the Adriatic basin, and Varaždin, Karlovac, Velika Gorica, Sesvete, Sisak, Slavonski Brod, Vinkovci, and Vukovar in the Black Sea basin. There are 7 urban centres with populations over 50,000, which represents 29% of the country’s population, and a further 31 towns with populations between 10,001 and 50,000 representing a further 15% of the total population in Croatia. Together, 44% of the population lives in sizeable communities of above 10,000 inhabitants. At the other end of the scale, 39% of the population live in communities below 2,000 inhabitants, and 52% live in settlements below 7,000 inhabitants (see Table 2.1).

The average size of the counties is somewhat above 180,000 inhabitants and 41% of the population lives in counties with less than 200,000 inhabitants. However, in these counties, unemployment runs at 20% and their average contribution to GDP is around 80% of the national average.

The state of the environment in Croatia has been assessed on a regular basis and is considered to be generally good. The State of the Environment Report for the 1997-2005 period was adopted by the Croatian Parliament in May 2007.

The 2002 NES identifies 13 priorities, of which the top two are waste and water. Air quality is third, the Adriatic (the sea, islands and coast) is a fourth and soil protection is fifth. Nature protection is the sixth priority. Waste is the top priority because of the legacy of the past, when there was limited compliance with waste legislation and poor waste management practices; this led to a profusion of illegal waste dump sites, which are hazardous to health, unsightly and pose a risk of groundwater contamination. Waste

### Table 2.1. Correlation between number of settlements and number of inhabitants

<table>
<thead>
<tr>
<th>Settlement size (number of inhabitants)</th>
<th>Number of settlements</th>
<th>Number of inhabitants</th>
<th>% of inhabitants in Croatia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without inhabitants</td>
<td>105</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-500</td>
<td>5,387</td>
<td>799,240</td>
<td>18%</td>
</tr>
<tr>
<td>501-2,000</td>
<td>1,040</td>
<td>953,305</td>
<td>21%</td>
</tr>
<tr>
<td>2,001-7,000</td>
<td>173</td>
<td>594,516</td>
<td>13%</td>
</tr>
<tr>
<td>7,001-15,000</td>
<td>29</td>
<td>291,756</td>
<td>7%</td>
</tr>
<tr>
<td>15,001-30,000</td>
<td>9</td>
<td>174,361</td>
<td>4%</td>
</tr>
<tr>
<td>30,001-80,000</td>
<td>12</td>
<td>523,207</td>
<td>12%</td>
</tr>
<tr>
<td>&gt; 80,000</td>
<td>4</td>
<td>1,101,075</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td>6,759</td>
<td>4,437,460</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Census 2001, Croatian Bureau of Statistics
management problems in Croatia are particularly noticeable, and have led to a critical situation in the majority of local authorities. It also has an adverse impact on the landscape and tourism. Therefore, solving waste management problems remains the absolute priority. The trend in Croatia, like other EU countries, is for waste volumes to rise, and the existing infrastructure is insufficient. The situation has been improved by the remediation and closure of municipal landfills all over the country, initiated by the Environmental Protection and Energy Efficiency Fund in 2004.

Water is also a priority in the environment sector because the investment required is the greatest, particularly in upgrading water treatment facilities and building sewerage networks. Effluent from rudimentary treatment systems is the main cause of water pollution, particularly in rural areas where half the population lives, but also from large settlements where the level of treatment is inadequate.

The same applies to the air sector – high investments are needed but integration of air quality requirements into the other sectors – especially in energy production, transport, industry and agriculture - is not a priority for this programming round. Care must particularly be taken of the balance between raising air quality and activities undertaken on behalf of economic developments. Among the environmental sub-sectors, only two (waste and water) are in the EPOP’s priority axes for the period 2007-2009.

2.1.2. Environmental sub-sectors

As already mentioned, the waste, water and wastewater, and air quality sub-sectors present the greatest investment challenges, according to the NES. The two top priority sub-sectors are described in detail. The waste and water sub-sectors are a priority because they are the most critical to the country’s economic development, requiring significant investment, and they were identified as the highest priority in Croatia’s AP with the EU.

Table 2.2: Comparison of some environmental indicators

<table>
<thead>
<tr>
<th></th>
<th>Municipal waste generated 2005 (kg per person per year)</th>
<th>Municipal waste landfilled 2004 (kg per person per year)</th>
<th>Connection levels to public water supply 2002 (%)</th>
<th>Population connected to urban wastewater collecting system (regardless of treatment) 2002 (%)</th>
<th>Share of electricity from renewable energy to gross electricity consumption 2005</th>
<th>Weighted emissions of greenhouse gases 2004 (million tonnes of CO₂ equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU 25</td>
<td>526</td>
<td>238</td>
<td>:</td>
<td>:</td>
<td>13.6</td>
<td>4979.57(e)</td>
</tr>
<tr>
<td>EU 15</td>
<td>567</td>
<td>234</td>
<td>:</td>
<td>:</td>
<td>14.5</td>
<td>4227.39</td>
</tr>
<tr>
<td>Slovenia</td>
<td>423</td>
<td>313</td>
<td>90.6</td>
<td>63</td>
<td>24.2</td>
<td>20.06</td>
</tr>
<tr>
<td>Slovakia</td>
<td>289</td>
<td>222</td>
<td>:</td>
<td>55</td>
<td>16.5</td>
<td>51.02</td>
</tr>
<tr>
<td>Hungary</td>
<td>459</td>
<td>294(b)</td>
<td>93.0</td>
<td>62</td>
<td>4.6</td>
<td>83.06</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>463</td>
<td>396</td>
<td>98.8</td>
<td>68</td>
<td>11.8</td>
<td>67.51</td>
</tr>
<tr>
<td>Romania</td>
<td>382 (e)</td>
<td>305</td>
<td>54.2</td>
<td>43</td>
<td>35.8</td>
<td>154.63</td>
</tr>
<tr>
<td>Croatia</td>
<td>*327 (e)</td>
<td>*311 (e)</td>
<td>*76.0</td>
<td>*40</td>
<td>36.1</td>
<td>28.95</td>
</tr>
</tbody>
</table>

Source: Eurostat, except for * = Croatian national sources

(1) Not available; (e) Estimated value; (b) Break in series; (s) Eurostat estimate

Water pollution, particularly in rural areas where half the population lives, but also from large settlements where the level of treatment is inadequate.

The same applies to the air sector – high investments are needed but integration of air quality requirements into the other sectors – especially in energy production, transport, industry and agriculture - is not a priority for this programming round. Care must particularly be taken of the balance between raising air quality and activities undertaken on behalf of economic developments. Among the environmental sub-sectors, only two (waste and water) are in the EPOP’s priority axes for the period 2007-2009.

2.1.2. Environmental sub-sectors

As already mentioned, the waste, water and wastewater, and air quality sub-sectors present the greatest investment challenges, according to the NES. The two top priority sub-sectors are described in detail. The waste and water sub-sectors are a priority because they are the most critical to the country’s economic development, requiring significant investment, and they were identified as the highest priority in Croatia’s AP with the EU.

This decision is based upon the limited resources available and conclusions of strategic documents. Given existing resource constraints, and the sequencing of investment funds and the poor state of their existing infrastructure they are deemed to be the overwhelming priority.
Description of the waste management sub-sector

The National Environmental Protection Strategy (NES) and National Environmental Action Plan have established that inappropriate waste management is one of the greatest problems in the field of environmental protection in Croatia.

The National Waste Management Strategy (NWMS), which was adopted in September 2005 and is a constituent part of the NES, sets the following strategic goals in the area of waste management:

✓ Avoidance and minimisation of waste volumes at source and of waste to be disposed, with material and energy recovery from waste;
✓ The development of infrastructure for an integrated waste management system AEL (Avoidance-Evaluation-Landfilling) (creates conditions for the efficient functioning of a system); which involves establishing up to 21 county/regional waste management centres, with waste pre-treatment before its final disposal or landfilling;
✓ The minimisation of the risks from waste under the scope of which falls remediation of existing municipal waste landfills (with closure or prolongation of activities), and remediation of sites highly polluted by waste (hot spots);
✓ Contribution to employment in Croatia through the development of domestic industry and businesses, and the production of municipal equipment;
✓ Education of administrative structures, experts and the public in order to solve waste management problems.

The total amount of municipal waste produced in Croatia in 2005 was estimated at 1.45 mil. t (average 0.90kg/person/day or 327 kg/person/year).

On the basis of data on the average annual composition of municipal waste, it is assessed that 74.5% of municipal waste refers to biodegradable waste (kitchen and bio-waste, paper and cardboard, leather and bones, wood, textile).

With the establishment of new waste management centres and the use of waste treatment technologies within those centres it is planned by 2015 to reduce the share of biodegradable municipal waste which is deposited in landfills to 50% of the mass of biodegradable municipal waste which was produced in 1997 (as reference year). By 2020 this share will be reduced to 35%.

Croatia has a relatively good potential for the use of biomass which occurs as a by-product and waste in the forestry, agriculture and wood-processing industries. Such potential is recognised and targets have been set: it is planned to produce 200 GWh of electricity by 2010 and 1000 GWh by 2020 from biomass.

Forest biomass is already used for district heating in the cities of Gospić and Ogulin, and additional pilot projects are initiated in three more cities. The further use of biomass in 1 MW district heating facilities is envisaged and a specialised state owned company (Forest Biomas Ltd.) has been established to facilitate those activities.

Table 2.3. shows waste production at a county level. It includes data on waste from tourism which is estimated to amount to 97,700 tonnes per year. Overall, the amount of waste from tourism is not significant, but given the fact it is

![Table 2.3.: Municipal waste produced per County (2005)]

<table>
<thead>
<tr>
<th>County</th>
<th>Population</th>
<th>Municipal waste produced in 2005 (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>County of Zagreb</td>
<td>309,696</td>
<td>81,181</td>
</tr>
<tr>
<td>Krapina-Zagorje</td>
<td>142,432</td>
<td>30,640</td>
</tr>
<tr>
<td>Sisak-Moslavina</td>
<td>185,387</td>
<td>62,332</td>
</tr>
<tr>
<td>Karlovac</td>
<td>141,787</td>
<td>37,174</td>
</tr>
<tr>
<td>Varaždin</td>
<td>184,769</td>
<td>40,206</td>
</tr>
<tr>
<td>Koprinivica-Križevci</td>
<td>124,467</td>
<td>26,249</td>
</tr>
<tr>
<td>Bjelovar-Bilogora</td>
<td>133,084</td>
<td>36,740</td>
</tr>
<tr>
<td>Primorje-Gorski kotar</td>
<td>305,505</td>
<td>114,984</td>
</tr>
<tr>
<td>Lika-Senj</td>
<td>53,677</td>
<td>17,766</td>
</tr>
<tr>
<td>Virovitica-Posavina</td>
<td>93,389</td>
<td>26,391</td>
</tr>
<tr>
<td>Požeška-Slavonija</td>
<td>85,831</td>
<td>27,658</td>
</tr>
<tr>
<td>Brod-Posavina</td>
<td>176,765</td>
<td>54,818</td>
</tr>
<tr>
<td>Zadar</td>
<td>162,045</td>
<td>69,659</td>
</tr>
<tr>
<td>Osijek-Baranja</td>
<td>330,506</td>
<td>126,456</td>
</tr>
<tr>
<td>Šibenik-Knin</td>
<td>112,891</td>
<td>35,367</td>
</tr>
<tr>
<td>Vukovar-Srijem</td>
<td>204,768</td>
<td>42,245</td>
</tr>
<tr>
<td>Split-Dalmatia</td>
<td>463,676</td>
<td>142,423</td>
</tr>
<tr>
<td>Istria</td>
<td>206,344</td>
<td>96,400</td>
</tr>
<tr>
<td>Dubrovnik-Neretva</td>
<td>122,870</td>
<td>44,410</td>
</tr>
<tr>
<td>Međimurje</td>
<td>118,426</td>
<td>24,533</td>
</tr>
<tr>
<td>City of Zagreb</td>
<td>779,145</td>
<td>311,749</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>4,437,460</td>
<td>1,449,381</td>
</tr>
</tbody>
</table>

Source: National Waste Management Implementation Plan

The total amount of municipal waste produced in Croatia in 2005 was estimated at 1.45 mil. t (average 0.90kg/person/day or 327 kg/person/year).

Table 2.3. shows waste production at a county level. It includes data on waste from tourism which is estimated to amount to 97,700 tonnes per year. Overall, the amount of waste from tourism is not significant, but given the fact it is


31 Draft National Strategy and Action Plan for meeting the obligations under the UNFCCC and Kyoto Protocol
produced within the short period of summer, mainly in the restricted coastal area, it is burdening for particular municipalities and even counties (the specific amount of tourism waste is estimated at 1.90 kg/tourist/day).

The volume of municipal waste arriving at licensed landfills has gradually increased. The reasons for this are various:

- A larger proportion of the population has organised collection, transport and disposal of waste;
- Greater volumes of waste per capita are being produced.

Picture 2.4 shows estimates of the quantities of municipal waste produced in selected years. Although data for years 1995 and 2000 could be taken with some reserve, the increase in the amount of produced municipal waste over a ten-year period is significant.

The estimated quantity of construction waste in the 2001-2005 period amounts to 1,254,152 tonnes. Most of the construction waste is deposited on landfills, usually in an uncontrolled manner on dumpsites.

According to data from the Environmental Emission Cadastre (EEC), in 2004 1,514,363 tonnes of non-hazardous production (technological) waste was generated. The highest share in the totally produced quantity of non-hazardous waste is reported for the following waste categories:

- Waste from agriculture, gardening, hunting, fisheries and the primary production of water crops, preparation of food and beverages (23.28 %)
- Waste from anorganic chemical processes (21.83%)
  The indicated types of waste, after appropriate pre-treatment, are mostly used at their site of origin, and part of the calcium carbonate is received by individual farmers, who use it for correcting the pH-value of agricultural soil.

In a preliminary assessment of the quantity of hazardous waste generated in the Republic of Croatia it was established that the total quantity of hazardous waste generated (213.000 t/year) is three times higher than the quantities of hazardous waste reported in the EEC. Due to various reasons, some types of waste are reported to the system very rarely, and the data is often incomplete or of low quality. All this points to the problem that the Waste Cadastre is still not able to ensure complete and integral data regarding the quantities, types and flows of the generated waste. The assessed quantities of new electrical and electronic equipment and devices placed on the market range from 55,000 to 60,000 t/year. The estimated quantity of waste batteries and accumulators is 8 500 t/year. The consumption of batteries and accumulators is constantly increasing. The assessed quantity of new accumulators and batteries placed on the market amounts to 11,000 t/year.

The import of hazardous waste and the import of non-hazardous waste, for landfilling and use for energy purposes, is prohibited in Croatia. In 2004, 363,889 tonnes of non-hazardous waste were exported, mostly metal (84%). In the same year, 265,265 tonnes of non-hazardous waste was imported to Croatia, mostly paper and cardboard, and granulated slag from iron and steel production for the production of cement.

The quantities of packaging waste are assessed by the quantity of packaging placed on the market. An increase has been observed in the quantities of paper and cardboard packaging, glass packaging and particularly of plastic packaging (Table 2.4).

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32 “LIFE TCY/CRO/000114 CONWAS” Project, Faculty of Civil Engineering of Zagreb University
According to assessments, the quantity of waste tyres ranges from 20,000 to 30,000 tonnes per year. The existing Ordinance on Waste Tyre Management secures the management of previously discarded tyres within the territory of Croatia (70,000 to 100,000 tonnes), by organising occasional actions for the collection of discarded tyres from citizens, and paying a special fee to citizens for the delivered tyres.

The number of end-of-life vehicles arising in the Republic of Croatia may be assessed at the annual level as ranging from 70,000 to 80,000 vehicles.

The analysis in the NWMS suggests that Croatia faces two main problems in relation to waste management:

- The volume of municipal waste being landfilled is constantly increasing; and
- The separation and recycling of waste is increasing, but there is scope for further improvement.

92.8% of the population is served by an organised municipal waste collection service\(^\text{33}\) (figure 2.5). The Waste Act stipulates that municipalities or towns shall provide for the implementation of measures for municipal waste management.

The separate collection of individual waste components is in place and is implemented with various intensity in almost all counties. According to 2005 data, the system of separate waste collection was implemented through a total of 39,030 containers for different waste components on the territory of the Republic of Croatia. For miscellaneous municipal waste 158,191 containers were recorded on the territory of Croatia.

In order to establish a primary recycling system, to date the Environmental Protection and Energy Efficiency Fund has granted funds for the procurement of 155,000 bins, containers and green islands in 161 towns and municipalities with a total value of 22.3 million kunas (around 3 m€).

Landfills absorb the biggest quantities of waste produced. In 2004 there were 281 controlled landfills of which 252 active (with a total active capacity of 69,402,670 m\(^3\)), but only 25 have all the necessary permits (licensed)\(^\text{34}\).

There is a programme for the remediation of municipal landfills as well as the gradual remediation of illegal sites (assessed at around 3,000) and sites highly polluted by waste. The remediation of municipal landfills began in 2004 with support from EPEEF, so the situation has in the meantime changed. EPEEF has, in cooperation with MEPPPC and local authorities started the remediation of 292 official unregulated municipal waste landfills. In the course of 2007, EPEEF will publish another call for proposals for the remediation of municipal landfills for those authorities which did not apply in previous calls for proposals. The overall investment is valued at 2.8 billion kunas (around 380 m€), out of which EPEEF will participate with 1.5 billion kunas

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\(^{34}\) Source: Cadastre of landfills, Final report, Croatian Environment Agency January 2005

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### Table 2.4.: Consumption of packaging

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Thousand of tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>paper and cardboard</td>
<td>91.7 96.8</td>
</tr>
<tr>
<td>Glass</td>
<td>81.6 97.7</td>
</tr>
<tr>
<td>Plastic</td>
<td>29.8 39.1</td>
</tr>
<tr>
<td>Metal</td>
<td>13.4 11.5</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>216.5 245.1</strong></td>
</tr>
</tbody>
</table>

Source: *State of the Environment Report*

### Picture 2.5: Share of population served by organised municipal waste collection by Counties (2005)

Source: *National Waste Management Implementation Plan*
(48%; around 200 m€). For this purpose EPEEF has already made payments in amount of 230 m kunas (31 m€). So far 28 municipal waste landfills have been remediated.

It is estimated that only little more than 50% of non-hazardous production (technological) waste generated is sent to licensed landfills or separated. Therefore, an almost identical volume is deposited at illegal dumpsites, the number of which is estimated at 3,000. This imbalance has a detrimental effect on the environment, quality of life and the development of tourism. The situation is particularly complex on islands and in the coastal zone. However, remediation of landfills on many islands, which has been completed, and adoption and implementation of new ordinances on separate waste collection (packaging, waste tyres, batteries etc.) has substantially reduced pressures on the environment. A significant contribution to the reduction of the pressure on the environment has been achieved through opening of new facilities/installations for recycling secondary raw materials (plastic, metal, tyres, glass etc.) due to the introduction of new legislation on the basis of which the separate collection of different categories of waste has been organised. For the remediation of 512 illegal dumpsites, in the territory of 140 local authorities, and in 2 national parks and 2 nature parks, the EPEEF allocated 43.6 million kuna (6.0 m€), accounting for 66% of the totally assessed investment needs. Up until now, 217 illegal dumpsites have been remediated.

There are currently no regulated sites for hazardous waste landfilling in the Republic of Croatia. Therefore hazardous waste requiring landfilling (waste which cannot be recycled, recovered, etc.) is exported. During 2005, a total of 13,157.02 tonnes of hazardous waste was exported.

Thermal treatment of individual waste types is carried out within determined industrial facilities and hospitals:

- All energy plants with power exceeding 3 MW may be used for the co-incineration of category I and II waste oils. Currently in the Republic of Croatia there are 17 authorised hazardous waste treaters using energy plants with power exceeding 3 MW for the co-incineration of hazardous waste, mainly waste oils and infectious waste.
- Cement factories in the Republic of Croatia are included in the hazardous waste management system. Currently waste oils and some other waste types, e.g., waste tyres, meat and bone meal, are co-incinerated in cement factories.
- Specialised incineration plants within the premises of economic operators have some smaller capacity for the incineration of waste from their own activities. The incineration plants are used for their own needs, and they have also begun to provide hazardous waste incineration services to other parties.
- Incineration plants within hospitals incinerate their own infectious waste, and provide services to other hospitals only in exceptional cases.

As mentioned, significant progress has recently been made in establishing a new system for packaging and packaging waste management on the basis of the new Ordinance on packaging and packaging waste (adopted in July 2005). Implementation in practice started in 2006 through the application of a system of new charges for packaging waste disposal, being paid by producers and importers of packaging to the Environmental Protection and Energy Efficiency Fund.

The ordinance and the new system of charges have proved a success. Proof thereof are 910 m units of packaging collected, that is, 78,500 tonnes of packaging waste that was returned in just one year. Quantities of packaging waste collected in the first half of 2006 significantly exceeded annual quantities of packaging waste collected during previous years, prior to the adoption and implementation of the Ordinance on packaging and packaging waste.

Implementation of the recently adopted Ordinance on End-of-life Vehicles Management, Ordinance on Waste Tyres Management, Ordinance on Waste Oil Management, Ordinance on Waste Batteries and Accumulators Management, situation with regard to useful waste separation has substantially changed for the better. Those Ordinances have been in force for less than a year and precise data and indicators are not yet available, but based on the example of the Ordinance on Waste Tyres Management which has been in force for six months, a high percentage of separate waste collection is to be foreseen. Another example shows that in the first months of implementation of the end-of-life vehicles Ordinance, collectors received 1,015 waste vehicles.

35 Source: Environment Protection and Energy Efficiency Fund
A legacy of the past is the problem of sites highly polluted by waste left behind as part of industry has declined. A significant risk at the majority of these sites is the risk of groundwater contamination (particularly in the karst region), which poses a threat to the quality of potable water supplies. Therefore, the remediation of these sites is one of the priorities. There are nine sites which are listed as priorities: in the continental part of Croatia those are Lemić brdo near Karlovac, the landfill of oily sludges in Botovo, and the phosphogypsum landfill in Kutina; in coastal area those are basins with alkaline water and red mud on the site of the former alumina factory near Obrovac, the coke plant in Bakar, the slag landfill in Kaštel Bay, “Sovjak” site near Rijeka, the slag landfill of thermal power plant TE Plomin I, the asbestos landfill in Mravinačka kava near Split. For remediation of nine priority “hot spots”, the Environmental Protection and Energy Efficiency Fund has allocated €22m for the 2005-2008 period.

Through the implementation of a PHARE 2006 project approved by the EC, a hazardous waste management system in line with the National Waste Management Strategy will be established, particularly in relation to the identification, characterisation and further management of “hot spot” sites and will increase the ability of relevant governmental authorities to apply and enforce the acquis communautaire relating to waste management.

Major issues and problems in the waste management sub-sector in Croatia are:

- Increased volumes of waste being sent to landfill;
- Limited waste separation at the point of generation, along with low recovery and treatment rates;
- Shortage of municipal waste recovery and treatment plants;
- Non-existence of landfills for hazardous waste;
- Insufficient engagement of waste producers to bear the actual costs of their waste disposal, and
- Under developed information and reporting systems.
**Description of the water management sub-sector**

**Water resources**
Croatia has relatively abundant fresh water supplies (see Table 2.5.). This, coupled with low population density and level of economic development, is the reason why water-related problems are not acute and water resources are not yet a limiting factor for socio-economic development. However, a major problem lies with the spatial and temporal distribution of water resources.

The impact of anthropogenic pollution on groundwater is of local importance, but it occurs in the naturally vulnerable alluvial areas (mostly in the Black Sea basins) and springs in karst areas. Also in the Black Sea basin there are considerable areas with naturally poor groundwater quality due to elevated contents of ammonia, arsenic, iron and manganese.

The majority of river basins, including groundwater, have a trans-boundary character; therefore, the efficient coordination of water management activities with neighbouring countries is necessary.

Watercourse pollution is determined on the basis of Biological Oxygen Demand (BOD), total nitrogen and microbiological determinants (see Picture 2.6.); this is mostly a consequence of untreated waste water discharges from larger settlements - most surface water is Class II and III (the lowest being Class V); however some microbiological indicators make some water Class III and IV.

The greatest differences between the actual and target water quality classes are recorded in the tributaries of the Sava River, because they receive large volumes of untreated wastewater from cities and towns. 75% of the largest towns are situated in the Sava basin.

**Table 2.5. WATER RESOURCES IN CROATIA**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Danube Basin</th>
<th>Adriatic Basins</th>
<th>Croatian average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total fresh water (10⁹ m³/y)</td>
<td>128.38</td>
<td>27.94</td>
<td>156.32</td>
</tr>
<tr>
<td>Renewable water resources³⁶ (10⁹ m³/y)</td>
<td>83.72</td>
<td>27.94</td>
<td>111.66</td>
</tr>
<tr>
<td>Renewable water resources (m³/y/ct.)</td>
<td>27,487</td>
<td>20,077</td>
<td>25,163</td>
</tr>
<tr>
<td>Internal water (10⁹ m³/y)</td>
<td>11.86</td>
<td>14.22</td>
<td>26.08</td>
</tr>
<tr>
<td>Internal water (m³/y/ct.)</td>
<td>3,894</td>
<td>10,218</td>
<td>5,877</td>
</tr>
<tr>
<td>Renewable groundwater (10⁹m³/y.)</td>
<td>2.66</td>
<td>6.47</td>
<td>9.13</td>
</tr>
<tr>
<td>Renewable groundwater (m³/y/ct.)</td>
<td>873</td>
<td>4,649</td>
<td>2,057</td>
</tr>
</tbody>
</table>

Source: Draft Water Management Strategy

³⁶ Not including 50% of the Danube River and 50 % of the Sava River downstream of the Una river mouth

³⁷ Classification of waters in five categories presents the assessment of the waters quality on the basis of the proscribed limit values of the following indicators: physical-chemical; Oxygen level, nutrients, microbiological, biological, metals, organic compounds and radioactivity. The limit values of the given indicators for each category are given in the Regulation on classification of water (Official Gazette 77/98 that is aligned with UN/ECE guidelines and methodologies.)
Water Supplies

In 2005, the total quantity of water supplied to the population and industry via public water supply systems was 265 million cubic meters.

The provision of water supply is sustainable, except in tourist areas, especially the islands, during the tourist period in the summer, when it is difficult to respond to increased consumption and demand; therefore, one of the development priorities is to raise the level of reliability of the water supply in these areas.

Levels of connection to mains water supplies in Europe vary considerably (see Table 2.6.); the precise data for Croatia is still being collected but approximately 76% of population has access to a public water supply system, but this varies considerably - that level is higher in the Adriatic basins (about 86%) than in the Black Sea basins (71%).

The main source of public water supply is groundwater (about 90%), either abstracted from wells (mostly in the Black Sea basins) or springs (mostly in the Adriatic Sea basins). The remaining abstractions are made directly from watercourses or reservoirs, although, the latter are used primarily for energy generation. Drinking water supply sources are protected by sanitary protection zones that cover about 18% of Croatian territory and 28% of the country’s mainland (40% in the Adriatic basins and only 6% in the Black Sea basins); these zones produce 80% of the public water supply. Development in these areas requires CW and local government consent. The recharge areas for water resources in the protection zones lie beyond Croatia’s boundaries within Slovenia and Bosnia-Herzegovina. The level of connections to the mains public water supply varies by region across the country, the map above shows this distribution.

When compared by region, the highest level of water supply is in Istria (about 95%), and the lowest in Bjelovarsko-Bilogorska (only 31%). In the Sava river basin, excluding Zagreb County, but including much of Eastern Slavonia, the level of water supply from public sources is only 55%. All urban centres have a relatively good water supply, but it is somewhat lower in the outlying settlements, and the lowest is in remote rural areas.

The age and lack of maintenance makes the water supply network highly permeable; losses are estimated at 40% of the total abstracted water.

Table 2.6. PUBLIC WATER SUPPLY & WASTE WATER COLLECTION, 2002

<table>
<thead>
<tr>
<th>Households with public water supply</th>
<th>Urban wastewater systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU 25</td>
<td>-</td>
</tr>
<tr>
<td>Hungary</td>
<td>93%</td>
</tr>
<tr>
<td>Austria</td>
<td>89.6%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>84%</td>
</tr>
<tr>
<td>Croatia</td>
<td>76</td>
</tr>
</tbody>
</table>


Picture 2.7.: Spatial distribution of quantity and quality of groundwater
Source: Draft Water Management Strategy

Picture 2.8: Average water supply by area
Source: Draft Water Management Strategy

38 Regulations on the Determination of the Sanitary Protection Zones will need to be harmonised with EU directives
Water quality is generally within the maximum allowed concentrations\(^\text{39}\) of determinants, but trends show some deterioration due to anthropogenic impacts. Sources that are particularly endangered are those around Pula in Istria, where pollution arises from agriculture, population and industry; aquifers supplying Varaždin, where pollution from agricultural nitrates and industry respectively are of concern; and supplies to Split are potentially at risk from industry and human activities. The eastern part of the Danube river basin has high levels of arsenic and manganese leading to natural reductive conditions, which require some pre-treatment before use as a water supply.

The spatial distribution map (Picture 2.7) depicts the quality and quantity of groundwater in the country; hydraulic conductivity is a property of soil or rock that describes the ease with which water can move through pore spaces or fractures. It depends on permeability of the material and on the degree of saturation; hence it provides both an indication of the ease of abstraction and the risk and susceptibility to pollution.

The pollution map above shows the sources of pollution in the country; the majority are discharges from wastewater treatment facilities. There are also 21 landfills whose effluent is discharged untreated or leaches directly into the ground. It is likely that there are many more old landfill sites that pose a hazard. The map also shows 33 industrial sites that are polluting groundwater.

### Sewerage and Waste Water Treatment

Only 12% of wastewater generated by population is treated, with only 4.4% receiving biological treatment in 82 wastewater treatment plants in settlements; therefore, the major source of pollution to surface waters is human. About 50% of the total industrial wastewater is discharged into the public sewerage and wastewater treatment system, after preliminary treatment; this is not always at the level of municipal wastewater quality. Approximately 30% of industrial wastewater is directly discharged (with some and without any pre-treatment), while the remaining quantities are treated in independent industrial wastewater treatment plants to a sufficient level for discharge. One of the consequences of insufficient treatment is the risk of potential eutrophication, especially of natural and artificial lakes and oxbows as well as coastal bays.

Table 2.7 summarises the level of connections to sewerage systems according to river basin catchment area.

It is estimated that only 40% of the population is connected to a public sewerage network, whose total length is about 6,000 km, with 333,530 connections (2002). While the connection rate to sewerage systems is quite low overall, it

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\(^{39}\) Regulations on Water Classification
depends on the size of the settlement; largely because the population density is varied, ranging from 20 to 200 inhabitants per km², resulting in great differences in infrastructure development.

The largest share of population connected to sewerage systems is in large towns (76%); whereas in settlements of fewer than 2,000 inhabitants it is almost negligible (about 5%); this is critical because nearly 40% of the total population lives in such settlements. Having in mind the age of the sewerage system in the cities, it can be assumed that most of the sewerage systems are highly permeable; thus this represents a significant source of water pollution. Rectifying this is a priority.

Table 2.8 summarises pollution loads in the river basin catchments areas; industrial sources contribute around 28% of the loads, with nearly 70% arising from households in settlements across the country, but over 50% comes from settlements in the Black Sea basins. However, in total the Black Sea basin catchment area receives 75% of the water borne pollution. Since 1990, pollution from industrial effluents has declined as a consequence of economic recession and the introduction of cleaner technologies, the recycling of water in technological processes and the construction of industrial wastewater treatment plants. A wastewater monitoring system is used to estimate the impact of point sources of pollution on surface waters.

### Table 2.8. TOTAL ANNUAL LOAD FROM POINT SOURCES OF POLLUTION (BOD5, 2001)

<table>
<thead>
<tr>
<th>Basin</th>
<th>LOADS BOD t/year</th>
<th>Population loads</th>
<th>% pop’load</th>
<th>% total load</th>
<th>Tourism-related load</th>
<th>Industrial load</th>
<th>% ind’load</th>
<th>% total load</th>
<th>Total</th>
<th>% by basin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sava river basin</td>
<td>48,440</td>
<td>50%</td>
<td>35%</td>
<td>0</td>
<td>13,362</td>
<td>35%</td>
<td>10%</td>
<td>61,802</td>
<td></td>
<td>45%</td>
</tr>
<tr>
<td>Danube river basin</td>
<td>18,259</td>
<td>19%</td>
<td>13%</td>
<td>0</td>
<td>21,845</td>
<td>57%</td>
<td>16%</td>
<td>40,104</td>
<td></td>
<td>29%</td>
</tr>
<tr>
<td>Dalmatian basin</td>
<td>18,718</td>
<td>19%</td>
<td>14%</td>
<td>884</td>
<td>647</td>
<td>2%</td>
<td>0%</td>
<td>20,249</td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td>Littoral-Istrian basins</td>
<td>11,757</td>
<td>12%</td>
<td>9%</td>
<td>1,998</td>
<td>2,392</td>
<td>6%</td>
<td>2%</td>
<td>16,147</td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td>Total Adriatic Sea basins</td>
<td>30,475</td>
<td>31%</td>
<td>22%</td>
<td>2,882</td>
<td>3,039</td>
<td>8%</td>
<td>2%</td>
<td>36,396</td>
<td></td>
<td>26%</td>
</tr>
<tr>
<td>Total Black Sea basins</td>
<td>66,700</td>
<td>69%</td>
<td>48%</td>
<td>0</td>
<td>35,206</td>
<td>92%</td>
<td>25%</td>
<td>101,906</td>
<td></td>
<td>74%</td>
</tr>
<tr>
<td>Croatia</td>
<td>97,175</td>
<td>2,882</td>
<td>38,245</td>
<td>138,302</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Draft Water management strategy

One of the prerequisites for complying with the urban wastewater treatment directive is the identification of “sensitive areas” and “agglomerations”; this list is being prepared. In the meantime, Croatia has a public works programme to upgrade the wastewater treatment plants and sewerage systems in the main population centres. This programme will be completed by 2025.

An additional problem is the large number (130) of municipal companies operating in this sector (some in the public water supply sector too); this results in inefficiency, which is mostly due to the low number of connections of dwellings to the sewerage network. Market forces should encourage the consolidation of municipal companies, which might improve service efficiency. This problem is identified also in Water Management Strategy and the plan is to transform the present system in regional systems.

In terms of the projects nominated for IPA funds, this will not represent a problem because the IPA-nominated projects include larger plants in the area under the responsibility of larger utility companies (e.g. Osijek, Slavonski Brod) which are well equipped (both in technical terms and in terms of staffing) for managing the system.
Technical assistance in terms of a suggestion on how to do this is welcome; however, before this can happen, the Strategy has to be approved in Parliament, i.e. TA for this purpose will not be sought within this programme’s TA.

Croatia is subject to considerable periodic flooding, which inflicts severe economic damage; these floods are caused by:

- River floods, due to extensive rains and/or sudden snow melting;
- Stream floods of smaller watercourses, due to short rains of high intensity;
- Floods on karst fields, due to extensive rains and/or sudden snow melting;
- Floods of inland waters on lowland areas; and
- Ice floods.

In addition, flooding may occur due to dams and barriers breaching, landslides and inappropriate construction. Significant problems may be caused also by floods in urban areas, due to short precipitations of high intensity, which, because of high population concentration on relatively small areas, often cause large material damage, and for which protection measures are planned at the local level as wastewater sewerage and drainage systems are built.

The biggest registered floods in Croatia during the last hundred years were:

- Danube river: in 1926 and 1965 year;
- Mura river: in 1965 and 1972 year;
- Una river: in 1974 year;

Due to inadequate investment in maintenance of the flood protection system, its effectiveness has since 1991 decreased from an average of 60% to an average of 40%. This effectiveness varies according to location and is generally much higher in large settlements (see map). In the Sava river basin, the system is not completed and there are still issues to be resolved along the border with Bosnia. The Danube flood protection system is not complete and in the Adriatic, more protection is required to deal with storm water.
### SWOT analysis

This SWOT is a summary of the main environmental issues in Croatia and concentrates on the waste and water priorities.

<table>
<thead>
<tr>
<th>Strengths (internal / current)</th>
<th>Weaknesses (internal / current)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General:</strong></td>
<td><strong>General:</strong></td>
</tr>
<tr>
<td>Unique natural environment with good legal protection and high level of biodiversity</td>
<td>EU environmental principle not fully applied &amp; insufficient integration of environmental protection into other sector policies</td>
</tr>
<tr>
<td>Relatively high quantities of fresh water of quite good quality</td>
<td>Public awareness and information on protection of environment and natural resources as well as sustainable development is improving, but there is insufficient level of professionalism within NGO sector, which leads to misleading of wider public.</td>
</tr>
<tr>
<td>Basic strategic documents in the environment sector developed or under preparation (air quality, water master &amp; waste management plans)</td>
<td>Insufficient administrative/institutional capacities at national and sub-national levels</td>
</tr>
<tr>
<td><strong>Waste:</strong></td>
<td>The relatively high number of public utility companies in Croatia results in sector inefficiency. Rationalisation needs to take place.</td>
</tr>
<tr>
<td>Waste Management Strategy and framework legislation in place</td>
<td>Relative lack of financial resources for the necessary investments (specially those required by “Heavy investment” Directives)</td>
</tr>
<tr>
<td>Specialized companies and public utility companies ready to use integrated waste management (WM) systems</td>
<td></td>
</tr>
<tr>
<td>Plans for remediation of sites highly polluted by waste (hot spots) developed</td>
<td></td>
</tr>
<tr>
<td><strong>Water:</strong></td>
<td></td>
</tr>
<tr>
<td>Croatia has relatively abundant &amp; good quality fresh water</td>
<td>WM plans at county level not fully completed mainly due to difficulties in defining the locations of future waste management centres (NIMBY)</td>
</tr>
<tr>
<td>Industrial effluent has significantly declined over last 10 years</td>
<td>Insufficient coordination of waste streams management on local level due to the lack of staff</td>
</tr>
<tr>
<td>Water quality monitoring system well developed</td>
<td>Complexity of process of securing own funds for investments on local and county level</td>
</tr>
<tr>
<td>Institutions for water management with well qualified staff who have experience in managing internationally funded projects exist</td>
<td>Lack of reliable data concerning waste types and amounts</td>
</tr>
<tr>
<td><strong>Waste:</strong></td>
<td><strong>Water:</strong></td>
</tr>
<tr>
<td></td>
<td>High percentage of sensitive areas in the country is vulnerable to pollution (karst area especially)</td>
</tr>
<tr>
<td></td>
<td>Water losses significant, age and insufficient maintenance of water/ sewerage network/facilities</td>
</tr>
<tr>
<td></td>
<td>Permanent activities on environmental awareness for water conservation needed</td>
</tr>
<tr>
<td></td>
<td>Water management strategy not yet adopted</td>
</tr>
<tr>
<td>Opportunities (external / future)</td>
<td>Threats (external / future)</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>General:</strong></td>
<td><strong>General:</strong></td>
</tr>
<tr>
<td>Interest among domestic and foreign investors in the environment sector as a driving force for economic development.</td>
<td>Disparities between environmental protection and economic development needs may exert additional pressure on the environment, particularly natural resources &amp; nature, especially in the coastal zone &amp; in karst areas.</td>
</tr>
<tr>
<td>Investment in new technologies for waste and water management, leading to new &amp; secured jobs.</td>
<td>Difficulties of coordination and the short implementation period for EU funded actions (n+3).</td>
</tr>
<tr>
<td>Grants from EU pre-accession funds for co-financing project implementation leverages scarce national funds.</td>
<td></td>
</tr>
<tr>
<td><strong>Waste:</strong></td>
<td></td>
</tr>
<tr>
<td>Rationalisation of waste sector public utility companies with implementation of National Waste Management Implementation Plan and organisation of up to 21 waste management centres.</td>
<td>Approx. 3,000 illegal waste dumps and 9 hot spots (old burdens).</td>
</tr>
<tr>
<td>TA used to prepare investment strategies / documentation for implementation of investment projects.</td>
<td></td>
</tr>
<tr>
<td>WM information system being developed in the waste cadastre.</td>
<td></td>
</tr>
<tr>
<td>Investments available to help implement integrated waste management systems at county / regional levels.</td>
<td></td>
</tr>
<tr>
<td>Indicative list of projects for the waste sector now developed for future investment.</td>
<td></td>
</tr>
<tr>
<td>Industry &amp; public needs educating in waste avoidance / minimization, waste recovery and recycling.</td>
<td></td>
</tr>
<tr>
<td>Large amount of biomass and waste from agricultural &amp; forestry is a potential source of renewable energy.</td>
<td></td>
</tr>
<tr>
<td><strong>Water:</strong></td>
<td></td>
</tr>
<tr>
<td>Harmonization with EU standards will help in improving existing situation.</td>
<td></td>
</tr>
<tr>
<td>Funding system developed, but not satisfactory.</td>
<td></td>
</tr>
</tbody>
</table>

There are a number of issues that emerge from the SWOT analysis that Croatia will need to address, namely:

- Transposition, implementation / compliance plans for all directives, priority to be given to “heavy investment directives” (development of financial strategies);
- Implementation of the National Waste Management Implementation Plan and completion and implementation of the Water Management Strategy;
- Securing the necessary financial resources for investments;
- Institutional, administrative and management capacity-building at all levels with improved exchange of information and communication;
- The rationalisation and restructuring of the public utility company sector;
- Incorporating the principles of sustainable development into all investment and development programmes;
- Encouraging environmental education within industry and management;
Not all of these issues can be addressed through the EPOP, but it can make a significant contribution by providing experience in managing and implementing large-scale investments. This experience will help the Croatian authorities to develop the capacity and skills needed to use EU funds upon accession.

2.1.4. Medium term needs and objectives in the waste management sub-sector

In line with the draft National Waste Management Strategy, and other national programming documents the medium term needs and objectives in this sub-sector are:

- The establishment of county/regional Waste Management Centres (3-7 county centres until 2010);
- The remediation of existing landfills (up to 65% by the end of 2010) and closure of all landfills on islands; remediation of sites highly polluted by waste (hot spots);
- A reduction of the quantity of disposed municipal waste on existing municipal waste landfills (up to 30% by the end of 2010);
- The further development of an integrated hazardous waste management system (permanent);
- The further institutional capacity building (permanent);
- The further development of information and reporting systems (permanent);
- The rationalisation and restructuring of the public utility company sector

On the basis of the National ISPA Strategy and the Financial Memorandum signed between the European Commission and Government of the Republic of Croatia in October 2006 for the ISPA measure entitled Bikarac Regional Waste Management Centre, it is envisaged that the Bikarac RWMC will be established by the end 2010. The Bikarac RWMC will be the first waste management centre in Croatia that will be built by the support of European Commission and national contribution.

Accession Partnership (Environmental sector), highlights the short-term and medium-term priorities. The medium term priorities (3-4 years period) in the waste management sector includes:

- Ensure the integration of environmental protection requirements into the definition and implementation of other sectoral policies;
- Develop an environmental investment strategy based on estimations of the costs of alignment;
- Continue to implement horizontal legislation;
- Continue work on the transposition of the EU acquis, with particular emphasis on waste management, water quality, air quality, nature protection and integrated pollution prevention and control;
- Increase investments in environmental infrastructure, with particular emphasis on waste water collection and treatment, drinking water supply and waste management;

In the terms of the Accession Partnership, the EPOP will contribute to the medium-term priority – increase of Investments in environmental infrastructure, where the emphasis is on wastewater collection and treatment, drinking water supply and waste management. Waste management is set in the Strategic Coherence Framework 2007-2013, as one of two priority objectives (alongside water management) to be financed under the scope of IPA assistance.

Within the Multi-annual Indicative Planning Document (MIPD) priorities comprise acquis-related investment in waste water collection and treatment, and drinking water supply and waste management (the construction of new landfills and the closure of non compliant landfills).

The national legal framework for the waste management sub-sector will be fully aligned with the acquis by the end of 2008, as planned and stated in the NPIEU 2007. The National Waste Management Implementation Plan was adopted by the Government of the Republic of Croatia in July 2007. County waste management plans have been prepared or are under development and have to be aligned with National Waste Management Implementation Plan by the end of 2007.
2.1.5. Medium term needs and objectives in the water management sub-sector

In line with the Water Management Strategy the medium term needs and objectives in this sub-sector are:

The strategic goals for the development of public water supply are:

✓ To increase the percentage of population supplied with water from public water supply systems, which is in line with European standards;
✓ The establishment of sanitary water source protection zones and the implementation of adequate protective measures, and activities related to the improvement of drinking water conditioning in accordance with the EU Drinking Water Directive;
✓ The reduction of losses from water supply distribution networks is expected to intensify. In view of the problems related to the existing status of water utility management, intensive work will be carried out on its consolidation, i.e. on the establishment of distribution/service areas as technologically and economically sustainable units.

The strategic goal of water protection is

✓ The intensive construction and reconstruction of urban wastewater sewerage and treatment systems;
✓ To increase the percentage of population connected to public sewerage systems so that the key requirements of the EU Urban Wastewater Treatment Directive are met;
✓ To repair existing sewerage networks with significant permeability, which helps conserve drinking water sources.

2.2. STRATEGIC PRIORITIES

Under the three overall aims – preparation of relevant institutions for management of Structural fund, alignment with the acquis and contribution to socio-economic development - the EPOP, which will run initially for three years from 2007-2009, is designed to directly contribute to the:

✓ Development of infrastructure for waste management for establishing an integrated waste management system in Croatia, including the remediation of sites highly polluted by waste; and
✓ Protection of water resources (through improved water supply and an integrated waste water management system).

Technical assistance is set as a third priority with the aim of providing assistance for the management and implementation of assistance granted under Component III Regional Development – environmental protection. Project pipeline preparation is included in the two development priorities.
<table>
<thead>
<tr>
<th>National SCF environmental objective</th>
<th>EPOP Objective</th>
<th>Priority Axis</th>
<th>Meeting priorities / axes through investments to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect and improve natural and living environment, and environmental potential as a key element for future development</td>
<td>Improve access to, and the efficient delivery of, environmental services and facilities in the waste and water sub-sectors</td>
<td>Developing waste management infrastructure for establishing an integrated waste management system in Croatia</td>
<td>Establishment of new waste management centres at county/ regional levels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Protecting Croatia’s water resources through improved water supplies &amp; integrated wastewater management systems</td>
<td>Remediation of sites highly polluted by waste (hot spots)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Construction of wastewater treatment plants for domestic and industrial wastewaters</td>
<td>Establishment modern water supply systems and networks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and upgrading of the sewerage network</td>
<td></td>
</tr>
</tbody>
</table>

Improvements to waste management will concentrate on:
(i) Establishment of new waste management centres, as a part of an integrated waste management system which is in development; and
(ii) Remediation of sites highly polluted by waste in the karst area that pose significant risks of contamination to ground waters that serve as sources of drinking water, or potential sources of drinking water (strategic drinking water reserves).

Improvements to water management will focus on:
(i) Providing sufficient quantities of potable water by protecting effectively drinking water sources, encouraging the rational use of water resources, reducing losses occurring within the water supply network, and raising connection levels to water supply systems in areas with low connection levels, increasing the efficiency and reliability of the water supply system;
(ii) Increasing connection levels to sewerage and wastewater treatment facilities, by constructing new WWTP and networks, as well as increasing the efficiency and reliability of the public sewerage and WWT system; and
(iii) Repairing existing sewerage networks with significant permeability, which helps conserve drinking water sources.

In order to reduce pollution, the construction of WWTP and/or upgrading of the sewerage system are especially necessary in the Danube and Sava river basins.
Both objectives will provide synergy for, and opportunities to increase, potential employment and SME development, as well as improving the investment climate and raising interest among domestic and foreign investors.

The above-mentioned assistance provided under this Operational Programme will be directed into the priority areas covered by Regional development component of IPA programme as stipulated in the Article 147 of the IPA Implementing Regulation, namely environmental measures related to waste management, water supply, urban waste water; rehabilitation of contaminated sites and land and technical assistance activities.

2.2.1. Waste management
Waste management is defined as a set of activities, procedures and systems for waste prevention, reduction and/or its harmful influence on environment, and for its collection, transport, recovery, treatment and ultimate disposal. The procedures and systems should also define the supervision of all activities, as well as the regime for managing landfills, once they have been closed down. Often these activities, procedures and systems are the
responsibility of different authorities, both public and private; best practice in the EU is moving towards an integrated approach to waste management involving, and sharing responsibility between, all the players.

Integrated waste management is the term used to describe the transformation of management procedures into the safe and efficient management of municipal solid waste streams, with the least possible harmful effects to human health and natural environment. An integrated waste management system includes some or all of the following components: reduction of waste quantities at source (including multiple use of products), recycling of materials, treatment of waste before final disposal (using energy generated by waste), and final waste disposal.

The activities designed to improve waste management are based on the Waste Directives, the NES, NEAP, National Waste Management Strategy; and they are targeted at the:

- Provision of technical pre-conditions for the reduction of waste generation and its harmful effect on the environment;
- Treatment of recoverable types of waste;
- Reduction of greenhouse gas emissions;
- Establishment of an integral and efficient waste management system.

For this purpose, it is necessary to:

- Bring Croatian legislation into full compliance with the acquis, by adoption of the remaining sub-ordinate acts;
- Provide for the enforcement of legislation;
- Gradually increase the financial pressure on waste producers, in order for waste disposal to cease being a subsidised activity, by charging waste disposal using full application of the criteria of waste quantity and features and of the “polluter pays” principle;
- Provide for the implementation of priorities pursuant to the legislation in waste management;
- Reduce municipal waste volumes by the selective collection of waste and their processing into new products or energy;
- Explore and implement the opportunities offered to reduce waste volumes generated in the construction sector.

Particular attention will be given to dealing with waste from islands (698 islands, of which only 47 are inhabited), as islands cannot be a place for final disposal; therefore, it is envisaged that transfer stations will be built on the islands so that the waste may be transferred to, and disposed on, the mainland.

The Waste Management Strategy comprises the evaluation of the current situation in waste management, a statement of the strategic and quantified goals and measures for achieving these goals, guidelines for waste management, and an assessment of investments and sources of finance. To achieve the goals set in the Strategy, the most important precondition is the planning, designing and construction of county/regional waste management centres; these would deal with municipal and industrial waste and begin the remediation and closure of landfill sites. The Waste Management Strategy was adopted in October 2005. The National Waste Management Implementation Plan was adopted in July 2007 and will be valid for the period of 8 years. The implementation plans for counties have been developed or are under development; these will be the strategic implementing documents. The waste sector projects on the indicative list in the EPOP are in compliance with the goals and measures in the Waste Management Strategy and with the National Waste Management Implementation Plan.

As identified in the SWOT analysis the relatively high number of public utility companies which are established on city/municipality level leads to fragmented waste management activities and results in sector inefficiency. A new concept for a county/regional level waste management system is envisaged by the National Waste Management Implementation Plan. The main feature of the new concept is the establishment of county/regional waste management centres which will be operated by a single company. Such a county/regional company will, in an
appropriate legal manner, join efforts with existing public utility companies to manage the waste management system for the whole county/region. According to the Plan, it is envisaged to establish up to 21 waste management centres. The Plan proposes and suggests to the counties, that wherever possible and viable, it would be preferable to establish waste management centres that would serve 2 or more counties.

2.2.2. Water management

The national strategic objectives and priorities are defined in Croatia’s AP (short-term and medium-term priorities) and in the national strategic documents: the NPIEU, the PEP, the NEPS and the NEAP and Water Management Strategy.

According to adopted sociological assessments, Croatia’s population will stagnate, with a trend of migration towards larger settlements. This will be balanced by an expected growth in a number of economic sectors, of which the most relevant for the water sector are the sectors of agriculture, tourism, industry and transport. In settlements, the difference between the actual water supply and the wastewater collection is 36%, which means wastewater treatment poses a particular problem for water protection. Industrial growth and improvements in efficiency will result in a rise of not only water demands, but also increased wastewater discharges.

The average quantity and quality of available water resources in Croatia can satisfy the needs of all users. However, depending on the level of development and the functionality of infrastructure, there may be restricted access to water in specific places and at specific periods of time (e.g. tourism and agriculture in the summer months).

According to the Water Act, the objective of water management and administration is to achieve an integrated, coordinated water regime across the entire national territory and in each individual water district. This implies the management of spatial distribution, the construction of the water system and the state of water quantity and quality in a manner most suitable for a specific area and time. By joint activities of water management and municipal economies, the achievement of the following goals will be attempted:

- Provision of sufficient quantities of quality drinking water for domestic water supply (settlements);
- Provision of necessary quantities of quality water for various economic purposes;
- Protection of people and material property against adverse effects of water; and
- Protection and improvement of water status and water-dependant ecosystems.

Croatia is finalising the Water Management Strategy; this is the fundamental long-term strategic water management document at the national level (pursuant to the Water Act). It establishes a unified water management policy and an integral and coordinated approach to the improvement of the water system is defined, in line with the state, demand and services in the water system, as well reflecting international commitments. When developing this document, in addition to the Croatian water law and policy, certain provisions of the EU Water Framework Directive of 2000 and, whenever possible, basic European water policy principles were taken into account.

The Water Management Strategy of Croatia includes the:

- Basis for the improvement of the legal, institutional and financial framework for water management activities;
- Guiding document for devising integral water management;
- Starting point for the development of other water management documents, especially River Basin Management Plans (RBMP);
- Framework for the preparation of strategies and plans of physical planning, environmental protection and development of other sectors and fields depending on waters or having an impact on the state of water (agriculture, forestry, fishery, industry, energy, transport, tourism, public health, nature protection, etc.); and
- National platform for regular water management operation, up to the adoption of RBMPs.
Four RBMPs (river basins of the: Sava, Drava and Danube, Primorje-Istria rivers, and Dalmatian rivers) should be completed by 2009. Croatia also participates in the Convention on the Protection and Sustainable Use of the Danube River, which is developing the RBM plan for the Danube River catchment area.

As identified in the SWOT analysis the relatively high number of public utility companies results in sector inefficiency. Therefore rationalisation needs to take place. According to the draft Water Management Strategy it is envisaged to gradually replace the existing system based on a large number of public utilities into a regionally based one.

**Water supply**

The strategic objective of sustainable water use in Croatia is to provide sufficient water quantities of adequate quality, in compliance with planned needs, and to achieve the necessary level of water supply dependability for all users, including aquatic eco-systems and those connected with water. The general policy of raising the health and living standards of the population requires further development of the public water supply system. In this respect, it is necessary to create the conditions for the sustainability of water supply systems by providing sufficient water quantities of the necessary quality, achieving technical and technological efficiency and determining adequate water price. Therefore, the development objectives for public water supply are the following:

- Effective protection of drinking water sources for public water supply (sanitary protections zones);
- Provision of adequate water conditioning of drinking water in cases of inadequate water quality within water supply systems;
- Reduction of water losses within public water supply systems to ensure the efficient operation of water supply systems, the rational use of water resources and a decrease in health risks;
- Raising connection levels to water supply systems in areas with low connection levels; and
- Increasing public water supply efficiency and reliability, with the introduction of an economic water price (polluter pays).

**Water sewerage and treatment**

The strategic water protection objective is to preserve water quality and prevent the degradation of water, primarily for the purpose of preserving human health and the environment and achieving the good ecological status of water, in order to make it suitable for planned uses. Croatia will move towards this strategic objective incrementally; it is necessary to preserve surface waters and groundwater that are still clean (upper stretches of watercourses, highland watercourses and especially groundwater; these all belong to water quality class I) as a storage reserve for population supply and also to remedy or eliminate the pollution of waters for use by industry, agriculture, fish farming, recreation (according to the water classification, they belong to water quality class II).

Therefore, the focus should be on the protection of human health and ecosystems, with protected areas as a priority (sanitary protection zones of the source, fish farms, bathing areas, nature parks, national parks, etc.), which would be achieved through the following activities and measures:

- The construction of wastewater treatment plants in settlements with existing sewerage networks;
- Increasing sewerage connection and wastewater treatment levels in areas with developed water supply systems;
- Repairing existing sewerage networks with significant permeability, which affect drinking water sources;
- Increasing the efficiency and reliability of public sewerage and wastewater treatment systems, with the introduction of economic water price (polluter-pays principle).
3. **PROGRAMME STRATEGY**

3.1. **PRIORITY AXES AND MEASURES**

3.1.1. **IPA objectives and priorities axes**

The IPA objectives and priorities are a subset of the national ones and they must reflect the strategic direction given in the AP, NES and NEAP. Nevertheless, because IPA has a much smaller scope, it is necessary to focus the EPOP's operations on more clearly defined objectives and priorities. Therefore, the overall objective for EPOP is to invest in those projects that will contribute the greatest impact with the limited resources available in the waste and water sub-sectors, whilst assisting Croatia meet its obligations for implementing the EU environmental acquis governing the treatment and disposal of waste, the supply of drinking water, collection, treatment and discharge of waste water, and also developing the administrative and management capacity of those institutions implementing the EPOP. Consequently, the EPOP will improve access to, and delivery of environmental services and facilities in the waste and water sub-sectors and also will produce other indirect development benefits out of IPA assistance, such as raising the quality of life of residents, attracting new productive investment and the creation of new jobs\(^{40}\).

The EPOP is divided into three priority axes:

- **Priority axis 1: Waste sub-sector** - (i) providing waste management facilities in centres where they are needed most, (ii) remediation of the sites highly polluted by waste “hot spots”;

- **Priority axis 2: Water sub-sector** - install modern water supply systems and (or) water treatment facilities and sewerage systems in those communities where: (i) drinking water supplies are most contaminated (ii) low levels of connection of population to the drinking water supply system, (iii) high losses in water supply network (iv) sewage treatment facilities will make the largest contribution to downstream water quality, (v) sewerage systems in settlements / communities where connection levels are below 75% and water supply connection level is high (vi) high permeability of the sewerage system and (vii) in sensitive areas and water protection zones;

- **Priority axis 3: Provide technical assistance (TA) to those IPA institutions managing the EPOP for programme management and capacity-building, preparing future Operational Programmes.**

An outline of these priorities is shown in the diagram below:

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\(^{40}\) The opportunity for jobs creation is clearly visible based on the example of the establishment of packaging waste system, which has already resulted in new jobs creation.
3.1.2. General Selection Criteria

The aim of the EPOP will be achieved through implementation of projects which best fit the EPOP’s objectives. To be supported under the EPOP, projects should be financially, economically, socially, and environmentally sound. In order to utilise available IPA funds in a timely and effective manner maturity of the projects is paramount for the prioritisation of assistance. Besides complying with national strategic and planning documents, the projects should meet the following eligibility criteria and general modalities. Major projects will be prepared in accordance with articles 150 & 170 of the Implementing Regulation.

Eligibility criteria

✓ Level of maturity of a project. i.e. it's readiness for implementation;
✓ Scale of projects: projects / group of projects/ project phase(s) should reach an estimated minimum value of €10m (smaller projects may be eligible as well, pending on the funds available and if determined by relevant measure-related selection criteria; they will be assessed mainly through environmental benefits criteria and technical eligibility and justification, having in mind the total value);
✓ Sustainability: projects must comply with EU norms and standards, be coherent with the sectoral policies of the EU, and must be (in case of waste management centres) financially sustainable to cover future operating and maintenance costs;
✓ Conformity with the objectives and principles of EU environmental policy:
  ➢ Protection, maintenance and improvement of environmental quality,
  ➢ Protection of human health, prudent and rational use of natural resources,
  ➢ Precautionary principle,
  ➢ Prevention principle,
  ➢ Elimination at source principle,
  ➢ “Polluter pays” principle.
✓ Alignment with the EU Environmental legislative requirements, with a particular focus on “investment heavy” directives with the intent of supporting alignment with the acquis;
✓ Alignment with priorities set both in national strategic and EU documents;
✓ Additionality - that is, the project would not have gone ahead without EU assistance.

General modalities (might be also used to conduct the selection process for smaller projects that won’t be submitted to the EC for prior approval)

✓ Continuity of community assistance, IFI assistance or other assistance, and previously identified investment priorities: i.e. investments and TA built on the previous support programmes (CARDS, DABLAs, PHARE, ISPA, IFIs etc.);
✓ Projects to be from previously developed and agreed lists of national priority projects for each sector (these lists will be continually updated/modified in line with the development of project pipelines);
✓ Projects which ensure the greatest impact and an immediate benefit upon completion (projects that cover biggest population, agglomeration, or area);
✓ Eventual cross border / regional impact(s);
✓ The level of contribution to achieving Croatia’s economic and social cohesion with the EU (projects with maximum potential economic and social benefits);
✓ Relationship between the environmental and economic effectiveness of the projects - i.e. between the number of people affected and the project's costs. In the case of small projects in the water sub-sector, the impact will be incremental, and therefore significant, over the lifetime of the programme, rather than at an individual project level;
Institutional and administrative framework for management / implementation of project (mainly in relation to the level of the Final Beneficiary (-ies) commitment.

Revenue generating projects

Revenue generating projects as defined in the Article 150 of the IPA Implementing Regulation are operation(s) proposed for pre-accession assistance involving an investment in infrastructure, the use of which is subject to charges borne directly by users and which generates revenues, or any operation involving the sale or rent of land or buildings.

3.1.3. PRIORITY AXIS 1 – DEVELOPING WASTE MANAGEMENT INFRASTRUCTURE FOR ESTABLISHING AN INTEGRATED WASTE MANAGEMENT SYSTEM IN CROATIA

Aim

The aim is to establish an integrated waste management system by developing waste management infrastructure - construction of waste management centres at county and regional levels and the remediation of sites highly polluted by waste, which will contribute to the protection of the environment and human health.

Community legislation

Activities under this priority axis are designed to improve waste management and assist Croatia in meeting its obligations related to implementation of the EU environmental acquis governing the disposal of waste, namely:

- Directive 2006/12/EC on waste,
- Waste Landfill Directive 1999/31/EC.


Specific objectives

The objectives of this priority are to:

- Construct waste management infrastructure with a focus on the construction of waste management centres (separation of waste by categories, treatment with aim to reduce biological component of waste, landfill for final disposal of residues) which will replace existing landfills; thus improving access to, and delivery of environmental services and facilities in waste management;
- Remediate and close sites highly polluted by waste;
- Prepare technical documentation (i.e. feasibility studies, environmental impact assessments, financial and economic analyses, cost-benefit analyses, affordability studies, preliminary designs, tender documents etc.) that will support the pipeline of projects for waste management investments.

Rationale

In Croatia there are a great number of municipal waste landfills, most of which do not comply with set standards, what is considered to be the result of an undeveloped waste management system.

Croatia inherited a large number of illegal dumpsites which are estimated at around 3,000, of which 1% pose significant pollution threat; and a number of sites highly polluted with waste- hot spots. The major part of industrial waste (inert and hazardous) is deposited at landfills within the industrial area and installations.

Croatia will comply with its obligations for future EU membership by developing an integrated waste management system, in accordance with the National Waste Management Strategy and National Waste Management Implementation Plan and county waste management plans and EU legislation. This will be realised by using different domestic and international resources and financial models. An integrated waste management system is already being introduced through support from national sources and the ISPA programme.
The Croatian framework waste management legislation is in place; sub-ordinate legislation for different waste streams, landfilling, incineration has been adopted or is under preparation. Full transposition of waste related acquis is planned to be completed in 2008 and the implementation of transposed provisions will require substantial efforts.

This priority, i.e. development of the waste management infrastructure through concept of “integrated waste management”, will therefore aim at achieving the requirements of EU legislation and at establishing an adequate and sustainable waste management system.

In addition Croatia is fully aware of the difficulties that new Member States have encountered in absorbing the allocation of Structural Funds due to the inadequate and unprepared project pipeline. Therefore the preparation of sufficient, well designed and mature projects will ensure use of EU assistance in timely and technical manner.

Description
The following indicative types of activities are envisaged for funding under this priority axis:

- Construction of new county/regional waste management centres;
- Construction of facilities for sorting, recycling and biological treatment; adequate facilities for handling hazardous waste and other specific waste streams; selective collection systems;
- Remediation of sites highly polluted by waste in the karst area that pose a significant risk of contamination to ground waters;
- Project pipeline preparation for previously identified projects.

Targeting
This priority axis will apply to the waste management sub-sector of the EPOP, contributing to the EPOP’s objective “Improve access to, and the efficient delivery of, environmental services and facilities in the waste and water sub-sectors”. The priority axis is targeted at:

- Improvement of access to, and delivery of environmental services and facilities in the waste sub-sector;
- Protection of ground water and human health;
- Assisting Croatia in meeting its obligations to implement the EU environmental acquis governing the disposal of waste.

The main beneficiaries of the interventions under this priority axis will be municipal/county/regional companies or other public bodies dealing with waste management, but also the line ministry (Ministry of Environmental Protection, Physical Planning and Construction).

Measures
Two measures are proposed under this priority axis:

- **Measure 1.1. Establishment of new waste management centres at county/regional levels**
  Projects under this Measure will provide for construction of new waste management centres, replacing local waste landfills, and other facilities necessary for an integrated waste management system.

- **Measure 1.2. Remediation of sites highly polluted by waste (hot spots)**
  Projects under this Measure should eliminate the threat that contaminated land and sites pose to ground water and to human health.

Delivery
The operations (projects) that will be financed under Priority axis 1 will be selected from the Indicative project list provided in Chapter 3.5 of the Operational Programme (and respective project identification cards attached as Annex III) in accordance with the general and sub-sector (measure) specific selection criteria provided in the Operational Programme.

The selected operations will then be submitted to the European Commission for approval. If a project is appraised as acceptable the European Commission will issue a decision on approval for each project which will define the physical object and the eligible expenditure to which the co-financing rate for the priority axis applies. At the end
for each approved project a Financing Agreement between the European Commission and the beneficiary country will be signed laying down those elements. Complementary funding for these investments will be ensured from national funding, external loans and other sources and models of funding.

In the case of projects that do not fall under the title “major projects” (i.e. that are under 10 m€ threshold) the decision about competing calls will be made by the Selection Committee, based on the selection criteria described in the Operational Programme and confirmed by the Sectoral Monitoring Committee.

Targets and indicators
The table below outlines the priority’s core indicators:

<table>
<thead>
<tr>
<th>Table 3.1: Indicators for evaluation for Priority axis 1 - Developing waste management infrastructure for establishing an integrated waste management system in Croatia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator</td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Population served by the new waste management centres</td>
</tr>
<tr>
<td>Reduction of waste deposited in the landfills</td>
</tr>
</tbody>
</table>

Financial allocation and co-financing rate
Out of the total allocation for the Environment OP that amounts in total 53,499,750 € (16,999,500 € in 2007, 18,000,000 € in 2008 and 18,500,250 € in 2009), the allocation for Priority Axis 1 is 8,349,750 € in 2007, 8,874,750 € in 2008 and 9,125,250 € in 2009 (total 26,349,750 €). For the waste management sector the IPA co-financing rate is set at 75%.

3.1.3.1. Measures under Priority Axis 1 - Developing waste management infrastructure for establishing an integrated waste management system in Croatia

Measure 1.1 – Establishment of new waste management centres at county / regional levels

Specific objective
Construction of waste management infrastructure with a focus on the replacement of existing landfills within new waste management centres along with the facilities for separation and sorting, recycling and biological treatment of waste; thus improving access to, and delivery of environmental services and facilities in waste management.

Rationale
Waste disposal facilities in most of the municipalities are inadequate. There is a great number of municipal waste landfills, most of which operate without valid permits. Scattered, non-compliant landfills along with the lack of waste treatment facilities are an obstacle for the establishment of an integrated waste management system. New waste management centres as the central point of waste management at a county/regional level will enable achieving the requirements of EU legislation establishing an adequate and sustainable waste management system.

Description
Projects under this measure will provide facilities for waste disposal within the new waste management centres, replacing numerous municipal waste landfills, and providing other facilities necessary for an integrated waste management system.

Since replacing existing landfill sites with new waste management centres is one of the key building blocks of the new county/regional waste management system, care must be taken, that those (existing) landfill sites should be closed as soon as possible following the completion of the new waste management facility.
Eligible actions
Assistance under this measure refers to procurement contracts (supervision services, implementation support, tender evaluation, consultancy, project preparation for already identified projects (including inter-alia feasibility study; social and economical appraisal and cost benefit analyses, technical design drawings, bills of quantities and tender documents, project monitoring and evaluation). More specifically activities under this measure are aimed at the construction of new municipal waste landfills; facilities for treatment, recycling and composting; equipment for the transport of waste; facilities for adequate disposal of other specific waste streams and other facilities for the development of an integrated waste management system.

Selection criteria
The projects under Measure 1.1 will ensure meeting the National Waste Management Strategy goal of establishing up to 21 new waste management centres at county / regional level and will be ranked according to the following criteria:

Criteria I - waste management systems in coastal counties with islands. There are seven such counties: Lika-Senj (53,677 population), Sibenik-Knin (112,891), Dubrovnik-Neretva (122,870), Zadar (162,045), Istria (206,344), Primorje-Gorski kotar (305,505), and Split-Dalmatia (463,676).

Criteria II - waste management systems in counties of over 200,001 residents or in other areas serving over 200,001 users. There are eight such areas, including the capital and two groups of counties: Zagreb (population 779,145), North-West Croatia (570,460), Eastern Slavonia (535,274), Split-Dalmatia (463,676), Osijek-Baranja (330,506), Primorje-Gorski kotar (305,505), Istria (206,344), and Vukovar-Srijem (204,768).

Criteria III - waste management systems in counties from 150,000 to 200,000 residents or in other areas serving from 150,000 to 200,000 users. There are four such counties: Zadar (population 162,045), Slavonski Brod-Posavina (176,765), Varazdin (184,769) and Sisak-Moslavina (185,389).

Criteria IV - waste management systems in counties with up to 150,000 residents or in other areas serving up to 150,000 users. There are three such counties: Lika-Senj (53,677), Pozega-Slavonia (85,831), Virovitica-Podravina (93,389) and Karlovac (141,787).

The viability of projects seeking IPA funding will be appraised on the basis of the following issues:

✓ New waste management centres and waste disposal sites must comply with the National Waste Management Strategy, National Waste Management Implementation Plan, county waste management plans and county spatial plans;
✓ Projects will be in those areas where the existing waste landfills create a ground water hazard;
✓ Projects will be in those areas where the landfills are running out of capacity;
✓ Presence of adequate administrative and institutional framework (this, inter alia, will help to ensure that the Polluter Pays Principle is fully observed);
✓ Projects for new waste management centres should review the choice between extending the existing waste disposal sites or building new facilities and protecting the sensitivity of the groundwater or other receptors in the region (i.e. will the project help to prevent damage to human health or the environment in a sensitive zone); and
✓ A rational and economically viable structure of the future operating company.

The project should also be appraised in terms of the distance between the planned/modernised landfill and local towns, in line with the principle of reducing the amount of waste transported (optimisation of transport costs).

Final beneficiary
The expected beneficiaries of Measure 1.1 are municipal/ county/ regional companies or other public bodies dealing with waste management but also the line ministry (Ministry of environmental protection, physical planning and construction).
Monitoring indicators

Table 3.2: Indicators for monitoring & evaluation for Measure 1.1 – Establishment of new waste management centres at county / regional levels

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>Baseline data (year)</th>
<th>Final target</th>
<th>Frequency of reviewing</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established (opened) new waste management centres</td>
<td>Number</td>
<td>0 (2007)</td>
<td>3</td>
<td>annually</td>
<td>MEPPPC, Project monitoring reports</td>
</tr>
<tr>
<td>Project application submitted with full documentation</td>
<td>Number</td>
<td>0 (2006)</td>
<td>3</td>
<td>annually</td>
<td>MEPPPC, Project monitoring reports</td>
</tr>
</tbody>
</table>

Measure 1.2 – Remediation of sites highly polluted by waste (hot spots)

Specific objective
Protection of the environment and human health by the remediation of sites high polluted by waste.

Rationale
Sites highly polluted by waste - hot spots - are a result of a long-lasting period of inappropriate production and (technological) waste management. The waste (primarily hazardous waste) was dumped in depressions, excavations and other inadequate sites. Those sites pose a risk both to the environment and human health. There are nine “hot spot” sites which are determined as priorities41.

For the remediation of nine priority “hot spots”, the Environmental Protection and Energy Efficiency Fund (EPEEF) has allocated €22m for the 2005-2008 period.

Description
Projects under this measure should eliminate the threat that contaminated land and sites pose to ground water and to human health.

Eligible actions
Assistance under this measure refers to procurement contracts (supervision services, implementation support, tender evaluation, consultancy, project preparation for already identified projects (including inter-alia feasibility study; social and economical appraisal and cost benefit analyses, technical design drawings, bills of quantities and tender documents, project monitoring and evaluation). More specifically activities under this measure are aimed at the remediation of sites highly polluted by waste including the adequate disposal of dumped waste.

Selection criteria
The priority projects under this measure should relate to those sites highly polluted by waste that pose a threat to underground water and to human health, especially in relation to the karst areas, since ground water provides 90% of drinking water supplies in Croatia. In addition and following the general selection criteria priority will be given to projects with the highest maturity level, ones which effect the environment in the most damaging way and that will provide maximum impact from the funds.

Final beneficiary
The expected beneficiary of Measure 1.2 is the Ministry of Environmental Protection, Physical Planning and Construction.

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41 For the list of “hot spot” sites see Chapter 2.12. „Description of waste management sub-sector“.
Monitoring indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>Baseline data (year)</th>
<th>Final target</th>
<th>Frequency of reviewing</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation for “hot spot” remediation projects prepared</td>
<td>Number</td>
<td>0 (2007)</td>
<td>1</td>
<td>annually</td>
<td>MEPPPC Project Monitoring Reports</td>
</tr>
</tbody>
</table>

3.1.4. PRIORITY AXIS 2 – PROTECTING CROATIA’S WATER RESOURCES THROUGH IMPROVED WATER SUPPLY AND INTEGRATED WASTE WATER MANAGEMENT SYSTEMS

Aim
The overall aim is to develop a water management system in relation to both drinking and waste water and, by doing that, to protect Croatia’s water resources and comply with EU standards.

Community legislation
Activities under this priority axis are designated to improve the water management system and assist Croatia to meet its obligations in relation to the EU acquis governing water management, namely the following most important Directives:

- Urban Waste Water Treatment (UWWT) Directive (91/271/EC, 98/15/EC) and

Croatian legislation in the water sector is expected to be in line with the acquis by 2008

Specific Objectives
The objectives of Priority Axis 2 are to:

- Provide adequate water and sewerage services, at accessible tariffs;
- Improve and protect the purity and quality of groundwater and soil in sensitive areas;
- Prepare technical documentation (i.e. feasibility studies, environmental impact assessments, financial and economic analyses, cost-benefit analyses, affordability studies, preliminary designs, tender documents etc.) that will support a pipeline of projects.

Rationale
This priority addresses one of the main weaknesses identified in the SWOT analysis reflecting the poor rate of connection of communities to basic water infrastructure (only 12% of waste water generated by the population is treated), and the lack of sewerage collection and treatment facilities in some areas.

Public water and sewerage services are often inefficient due to the large number of small operators, and long-term under-investment and poor management. This is being addressed by the introduction of strategic planning, long-term objectives and business plans in the water sector.

Croatia is committed to complying with the water sector component of the EU environmental acquis. Croatian legislation in the water sector is expected to be in line with the acquis by 2008, but in addition to legislation alignment, a high level of investment will be needed, particularly in the waste water sector.
According to the decision on "sensitive areas" the exact level of investments will be determined due to the fact that agglomerations of more than 10,000 p.e. in those areas should have waste water treatment plants providing an advanced treatment level (nitrogen and phosphorus removal), which will, of course, raise the level of investments needed. In rural areas, where 54% of the population lives and most settlements don’t have adequate facilities, groundwater is susceptible to contamination from untreated wastewater. Therefore small-scale wastewater treatment plants must be built to protect the groundwater reserves.

Priority will be given to large scale integrated projects in order to optimise the investment and operational costs induced by such investments. The long-term investment programme has identified 29 priority investments that will be targeted to provide settlements of over 50,000 p.e. with adequate water and wastewater utilities. The investment needs will be prioritised to also take into account the commitments assumed by Croatia during the negotiation process, mainly in urban agglomerations in the first phase. However, for IPA, the strategy is to focus on those communities where the greatest impact may be made within the limited resources available. Rural agglomerations can also be integrated within a regional project if a significant environmental impact can be justified and/or cost-efficient components improve the sustainability of the overall investment.

Technical assistance is available under CARDS, Phare, DABLAS, ISPA and IPA for potential beneficiaries, who wish to improve their capacity to prepare projects for future EU funding.

Croatia recognises that EU funds will be insufficient for compliance with the EU water sector acquis. Other sources of finance will be sought and potential beneficiaries are encouraged to consider innovative financial engineering solutions such as public-private partnerships incorporating design-build-operate (DBO) schemes. This priority axis has been designed to assist beneficiaries from local authorities at regional / county / municipal levels.

IPA will continue the major investment programme required to assist Croatia meet her obligations for future EU membership and will contribute to readdressing past underinvestment.

In addition Croatia is fully aware of the difficulties that new Member States have encountered in absorbing the allocation of Structural Funds due to the inadequate and unprepared project pipeline. Therefore the preparation of sufficient, well designed and mature projects will ensure use of EU assistance in a timely and technical manner.

**Description**

The following indicative types of activities are envisaged for funding under this priority axis:

- Construction/refurbishment of water supply networks and investments in water treatment;
- Construction/refurbishment of waste water networks;
- Construction of waste water treatment plants;
- Refurbishment/upgrading of existing waste water treatment plants;
- Project pipeline preparation for previously identified projects.

**Targeting**

This priority axis will apply to the water management sub-sector of the Environmental OP contributing to the EPOP’s objective to “Improve access to, and the efficient delivery of, environmental services and facilities in the waste and water sub-sectors”. The priority axis is targeted at:

- The improvement of access to, and delivery of environmental services and facilities in the water sub-sector;
- The protection of water resources;
- Assisting Croatia in meeting her obligations to implement the EU environmental acquis governing water management.

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42 Annex D-5 to the Croatian National Water protection Plan, OJ 8/99
The main beneficiaries of the interventions under this priority axis will be county / municipal companies or other public bodies dealing with water management, but also the line ministry (Ministry of Agriculture, Forestry and Water Management).

**Measures**

- **Measure 2.1.** Establishment of modern water supply and networks
- **Measure 2.2.** Construction of WWTP for domestic and industrial wastewater and upgrading the sewerage network

There are two main measures under this priority, the first concentrates on providing modern drinking water supply networks, and the second will provide wastewater treatment facilities and sewerage networks.

The EPOP (through the specified measures) will concentrate on the upgrading and construction of water supply, sewerage networks and WWTPs, through projects that will focus on:

- Providing integrated solutions to wastewater issues in the settlements, contribute to the aligning with Urban Waste Water Treatment Directive (91/271/EEC, 98/15/EC) and other relevant EU directives;
- Improvement of wastewater treatment levels by constructing treatment plants;
- Reduction of leakages (both in water supply and sewerage networks);
- Increasing the level of connections to water supply and sewerage systems.

The EPOP will focus on the establishment / improvement of drinking water and sewerage / treatment facilities in the areas of the country where:

- Drinking water supplies are most contaminated and areas with low connection levels of the population to the drinking water supply system;
- There are high losses in the water supply network;
- Sewage treatment facilities will make the largest contribution to downstream water quality;
- Sewerage systems in settlements / communities where connection levels are below 75%; and in areas with developed water supply systems;
- There is high permeability in the sewerage network, especially when it affects drinking water sources;
- Provide micro wastewater treatment projects in settlements with less than 5,000 p.e., where there is a significant risk to the quality of recipient waters in sensitive areas and water protection zones. In this respect, it should be noted that 50% of Croatia’s population live in settlements with less than 7,000 people.

A national register of all wastewater treatment facilities has been prepared and a similar register of water supplies is being prepared. However, these registers are not compatible with the WFD / Urban Waste Water Treatment Directive. Therefore, a comprehensive list of settlements or agglomerations of settlements, that will reflect the requirements of the WFD, is being prepared and will be completed by the end of 2007.

Wastewater Treatment and drinking water projects within the Adriatic River Basins are already subject of relevant framework assistance / projects (WWT projects are supported by World Bank’s “Coastal Cities Pollution Control Project”- costal area and “Inland Water Project” - inland area of Adriatic River Basin and drinking water projects are financed by the State Budget and partly by IFIs through the relevant framework project).

The greatest problems with water quality standards are in the Black Sea catchment area; therefore, the majority of proposed projects are designed to improve sewerage and wastewater treatment systems in this river basin. The towns and settlements in the catchment area are developing plans to reduce untreated discharges and protect drinking water sources.

Due to the rather limited EU budget allocated in this EPOP, activities related to water management are concentrated on the improvement of water supply and wastewater treatment infrastructure. However, investment in water infrastructure could also be seen as an opportunity for the improvement of Croatian scientific and
technological capacity. This could be achieved through the support and participation of Croatian researchers and technical staff in the major (water related) EU funded projects, by supporting the creation and development of a national exchange platform (including all relevant stakeholders) in order to ensure effective public/private partnership. In addition the involvement of Croatian scientists and researchers could be used to support activities conducted under the Water Supply and Sanitation Platform, as one of the technology platforms set up within the European Environmental Technology Action Plan.

**Delivery**

The operations (projects) that will be financed under Priority Axis 2 will be selected from the Indicative project list provided in Chapter 3.5 of the Operational Programme (and the respective project identification cards attached as Annex III) in accordance with the general and sub-sector (measure) specific selection criteria provided in the Operational Programme.

The selected operations will then be submitted to the European Commission for approval. If a project is appraised as acceptable the European Commission will issue a decision on the approval for each project which will define the physical object and the eligible expenditure to which the co-financing rate for the priority axis applies. At the end for each approved project a Financing Agreement between the European Commission and the beneficiary country will be signed laying down those elements. Complementary funding for these investments will be ensured from national funding, external loans and other sources and models of funding.

In the case of projects than do not fall under the category of “major projects” (i.e. that are under 10 m€ threshold) the decision about competing calls will be made by the Selection Committee, based on the selection criteria described in the Operational Programme and confirmed by the Sectoral Monitoring Committee.

**Targets and indicators**

The table below outlines the priority’s core indicators:

| Table 3.4.: Indicators for evaluation of Priority axis 2 - Protecting Croatia’s water resources through improved water supply and integrated waste water management systems |
|---------------------|-----------------|-----------------|-----------------|-----------------|
| Indicator | Unit | Baseline data (year) | Final target | Frequency of reviewing | Data source |
| Population connected to rehabilitated water supply network | Number | 0 (2007) | 100,000 * | 3-year period | MAFWM |
| Population connected to new / rehabilitated sewerage network | Number | 0 (2007) | 105,000 PE* | 3-year period | MAFWM |
| Population served by the WWTP | Number | 0 (2007) | 105,000 PE* | 3-year period | MAFWM |

* direct and indirect effect

**Financial allocation and co-financing rate**

Out of total allocation for the Environmental OP that amounts in total to 53,499,750 € (16,999,500 € in 2007, 18,000,000 € in 2008 and 18,500,250 € in 2009), the allocation for Priority Axis 2 is 8,400,000 € in 2007, 8,900,250 € in 2008 and 9,150,000 € in 2009 (total 26,450,250 €). For the water management sector the IPA co-financing rate is set at 75%.
3.1.4.1. Measures under Priority Axis 2 – Protecting Croatia’s water resources through improved water supply and integrated waste water management systems

Measure 2.1 – Establishment of modern water supply systems and networks

Specific Objectives
The extension of the public water supply network, with a focus on rehabilitating the existing decrepit networks and the construction of new ones, would integrally solve and upgrade the drinking water supply to the population by means of a public water supply system.

Rationale
The conducted analyses of the present state of the sector and development needs showed that Croatia has sufficient water quantities available for its needs, and that the water resources in terms of their quality and quantity are not a limiting factor of economic development. Water management requires systematic investments into the development and regular maintenance of water systems. The main goal of water estate management is the provision of sufficient quantities of quality drinking water for the population, the provision of necessary water quantities of adequate quality for various economic uses, the protection of people and material property from floods and other forms of adverse effects of water, the achievement and maintenance of good water status for the purpose of the protection of aquatic and water-related ecosystems. The strategic goal of public water supply development is to increase the level of population water supply from public water supply systems, in line with the European standards. Additionally, there is a planned intensification of activities on the determination of sanitary protection zones of the source and the implementation of appropriate protective measures, and also an intensification of activities on upgrading drinking water treatment in accordance with the requirements of the EU Drinking Water Directive, as well as the intensification of activities on reducing losses from water supply distribution networks.

Description
The projects within this measure will be a vehicle for the construction of new water supply network facilities, the rehabilitation of decrepit facilities and equipment, and thus modernising the existing water supply systems of settlements in order to meet EU regulations and standards.

Eligible Actions
Assistance under this measure refers to procurement contracts (supervision services, implementation support, tender evaluation, consultancy, project preparation for already identified projects (including inter-alia feasibility studies; social and economical appraisals and cost benefit analyses, technical design drawings, bills of quantities and tender documents), project monitoring and evaluation). More specifically activities under this measure are aimed at the construction of new water supply networks and rehabilitation of the existing ones, with the purpose of developing integrated water supply systems for settlements. Actions within in this measure could also relate to the inspection, operation and monitoring of water supply facilities. If appropriate the participation of Croatian research and scientific staff in major EU funded (drinking water) projects could be encouraged and through this a national exchange platform and an interface between the Croatian scientific and Water Supply and Sanitation Technology sectors could be created.

Selection criteria
In accordance with the Drinking Water Directive and IPA and national priorities, preference will be given to drinking water supply and water treatment projects:

Criteria I – providing / upgrading water supply networks and an appropriate level of water treatment for agglomerations of at least 50,000 p.e. (with preference given to the largest agglomerations), the projects in counties with low water supply system connectivity levels will have priority;

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43 That will include researches, technology oriented SMS, regulators, policy makers and other relevant stakeholders on national level in order to ensure and effective Public/private partnership.

44 An ‘agglomeration’ means an area where the population and/or economic activities are sufficiently concentrated for urban waste water to be collected and conducted to an urban waste water treatment plant or to a final discharge point, (directive 91/271/EEC).
Criteria II - providing / upgrading water supply networks and an appropriate level of water treatment for agglomerations from 15,000 to 50,000 p.e.;

Criteria III - providing / upgrading water supply networks and an appropriate level of water treatment for agglomerations from 2,000 to 15,000 p.e. in sensitive areas.

Specifically projects will be selected upon the basis of:

- Large agglomerations (i.e. preference for those projects benefiting the greatest number of inhabitants); Large projects should provide integrated solutions i.e. complete water supply systems including reservoirs, treatment plants, distribution pipelines and be targeted at communities where the level of connection to the mains water supply network is low;
- Reduction of network water losses to ensure greater efficiency of the existing water distribution system;
- Regions with water-related health problems;
- Being located in regions with scarce water resources (dry climates, over-exploitation of aquifers) or important quality problems (e.g. surface water pollution, aquifer salination);
- Small projects should concentrate on existing water supplies that do not meet quality standards;
- A rational and economically viable structure of the future operating company;

Community quality standards for drinking water must also be taken into account when considering the design of the project and aspects that are eligible for IPA support.

Projects should include solutions that ensure efficient use of resources by charging for resource use (abstraction of water) e.g. a tariff system\(^{46}\) (linked to the level of consumption), leakage control and metering (though due account should be given to the affordability for end users).

Final Beneficiaries
The expected beneficiaries of Measure 2.1 are local / regional / municipal companies or other public bodies dealing with water related activities, but also the line ministry (Ministry of Agriculture, Forestry and Water Management).

Monitoring Indicators
Table 3.5: Indicators for monitoring & evaluation for Measure 2.1 – Establishment of modern water supply systems and networks

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>Baseline data (year)</th>
<th>Final target</th>
<th>Frequency of reviewing</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outputs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New water supply networks</td>
<td>km</td>
<td>0 (2007)</td>
<td>7</td>
<td>annually</td>
<td>MAFWM Municipal companies, project monitoring reports</td>
</tr>
<tr>
<td>Rehabilitated / replaced water supply network</td>
<td>km</td>
<td>0 (2007)</td>
<td>20</td>
<td>annually</td>
<td>MAFWM Municipal companies, project monitoring reports</td>
</tr>
<tr>
<td>Water supply projects applications submitted with full documentation</td>
<td>Number</td>
<td>0 (2006)</td>
<td>2</td>
<td>annually</td>
<td>MAFWM, Project monitoring reports</td>
</tr>
</tbody>
</table>

\(^{45}\) A list of all agglomerations over 50,000 p.e. is part of the national Water Protection Plan (Official Gazette 8/99)

\(^{46}\) When applying the polluter pays principle should be observed, tariffs paid by the users should at least cover operational and maintenance costs and provisions for equipment replacement (though due account should be given to the affordability of charges by households).
Measure 2.2 – Construction of WWTP for domestic and industrial wastewater and upgrading the sewerage network

Specific Objectives
The construction and reconstruction of public systems for urban wastewater collection and treatment, including an increase in population connection levels to public sanitation systems, which will fulfil the key requirements of the EU Urban Wastewater Directive.

Rationale
As stated, Croatia has sufficient water quantities available for its (both public and economic) needs. However, further effort needs to be made in the field of protecting the environment and drinking water sources through a reduction in the amount of untreated sewage being deposited in Croatian water courses. The strategic goal of water protection is the intensive construction and reconstruction of urban wastewater sewerage and treatment systems and to increase the percentage of the population connected to public sewerage systems, with the aim of meeting the key requirements of the EU Urban Wastewater Treatment Directive. This measure has the aim of fulfilling the above stated goals.

Description
The projects within this measure will be a vehicle for the construction of new public sanitation systems, the rehabilitation of decrepit facilities and equipment, the construction of urban wastewater treatment plants, and thus modernising the existing sanitation systems in order to fulfil the requirements of EU regulations and standards.

Eligible Actions
Assistance under this measure refers to procurement contracts (supervision services, implementation support, tender evaluation, consultancy, project preparation for already identified projects (including inter-alia feasibility studies; social and economical appraisals and cost benefit analyses, technical design drawings, bills of quantities and tender documents), project monitoring and evaluation). More specifically, the activities under this measure are aimed at the construction of urban wastewater collection facilities and treatment systems, with the purpose of developing an integrated solution to urban wastewater problems. The actions within this measure could also relate to the inspection, operation and monitoring of water treatment facilities. If appropriate the participation of Croatian research and scientific staff in major EU funded (drinking water) projects could be encouraged and through this a national exchange platform and an interface between the Croatian scientific and Water Supply and Sanitation Technology sectors could be created.

Selection Criteria
The extension/modernisation and construction of wastewater infrastructure in agglomerations with more than 50,000 p.e.; and the improvement of wastewater infrastructure in agglomerations of less than 5,000 p.e. in areas where groundwater’s are at risk, through a small project facility, are the type of operations through which major interventions (measures) – construction/upgrading of wastewater treatment plants and extension/rehabilitation of water and sewerage networks - will be achieved.

Projects under Measure 2.2 will be ranked according to the following criteria:

Criteria I – those ensuring collection systems (including both upgrading and construction of sewerage systems) and an appropriate level of sewage treatment for agglomerations of at least 50,000 p.e., There are approximately 30 agglomerations in this category (preference given to the largest agglomerations);

Criteria II - ensuring collection systems and an appropriate level of sewage treatment for agglomerations from 15,000 to 50,000 p.e.; and

Criteria III - ensuring collection systems and appropriate level of sewage treatment for agglomerations from 2,000 to 15,000 p.e. Specific consideration will be given to small water treatment facilities for settlements with an impact on sensitive areas and potential Natura 2000 sites.

47 That will include researches, technology oriented SMS, regulators, policy makers and other relevant stakeholders on national level in order to ensure and effective Public/private partnership.
In addition, in accordance with the Urban Waste Water Directive (91/271/EEC), priority will be given to:

- Projects where larger numbers of inhabitants will be served. Unless part of a larger scheme, settlements (or agglomerations) should be greater than 5,000 people, unless in sensitive areas and potential Natura 2000 sites. Priority will be given to larger settlements or groups of settlements where project preparation/documentation is complete;
- Agglomerations discharging into “sensitive areas” should also be given priority for treatment. (A sensitive area can be defined by each country and/or in accordance with the Water Framework Directive).

Unless in a “sensitive area”, such as a water protection zone or special protection areas, secondary / biological treatment should be adopted, but in such “sensitive” areas more stringent treatment (Art. 5) sufficient to reduce the phosphorous and nitrogen load can be expected. (If several such projects are proposed, priority should be given to those that provide wastewater treatment that gives the greatest degree of positive environmental impact). Such areas are where:

- The receiving waters are in areas of protected biodiversity (potential Natura 2000 etc.);
- The receiving waters provide drinking water;
- Wastewater treatment is likely to result in substantial economic benefits (e.g. agriculture, fishing, tourism).

When designing a project, the following should also be taken into account:

- Projects should be designed in order to achieve the treatment standards laid down in the UWW Directive and adequate monitoring systems to monitor these standards;
- Institutional and legal provisions should be in place at municipal level to ensure that industrial waste water discharges into the municipality sewage network are pre-treated (as these waters are frequently toxic and difficult to treat by normal methods);
- Sludge treatment and its final destination is made respecting community waste legislation;
- Possible impacts on potential Natura 2000 sites;
- A rational and economically viable structure of the future operating company.

**Final Beneficiaries**

The expected beneficiaries of the Measure 2.2 are the local / regional / municipal companies or other public bodies dealing with waste water (sewerage) related activities but also a line ministry (Ministry of Agriculture, Forestry and Water Management).

**Monitoring Indicators**

**Table 3.6: Indicators for monitoring & evaluation for Measure 2.2 – Construction of WWTP for domestic and industrial wastewaters and upgrading of the sewerage network**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>Baseline data (year)</th>
<th>Final target</th>
<th>Frequency of reviewing</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outputs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New/rehabilitated WWTP compliant with EU aquis</td>
<td>Nr</td>
<td>0 (2007)</td>
<td>3</td>
<td>annually</td>
<td>MAFWM Municipal companies, project monitoring reports</td>
</tr>
<tr>
<td>Sewerage network construction / refurbishment</td>
<td>km</td>
<td>0 (2007)</td>
<td>50</td>
<td>annually</td>
<td>MAFWM Municipal companies, project monitoring reports</td>
</tr>
<tr>
<td>Waste Water project applications submitted with full documentation</td>
<td>Number</td>
<td>0 (2006)</td>
<td>4</td>
<td>annually</td>
<td>MAFWM, Project monitoring reports</td>
</tr>
</tbody>
</table>
3.2. **PRIORITY AXIS 3 - TECHNICAL ASSISTANCE**

**Aim**
The aim of the TA priority axis is to ensure that Croatia is able to administer the Environmental Protection Operational Programme, through all aspects of programme management.

**Objective**
Ensure efficient and effective OP management, and develop institutional capacity for project preparation, management and absorption of IPA and future Structural Funds.

**Rationale**
Croatian programme and project management capacity – from design through commissioning to operation – is evolving at the national, regional and local levels, supported in recent years by 76 technical assistance and twinning projects under PHARE, CARDS and bilateral assistance. This practical experience will continue to grow and become embedded in future years, as more projects come on-stream.

Management of IPA, and specifically, this OP, will involve extraordinary costs that do not form part of the Croatian administration’s traditional operating expenses. This includes: information & publicity on IPA; the development of monitoring indicators and an EU funds Management Information System; training for Croatian national and regional bodies in the preparation of project applications for EU assistance funds; the commissioning of external, independent experts for interim and ongoing evaluations; and the costs of managing and implementing the IPA programmes.

Moreover, IPA is designed as a pre-cursor to Structural and Cohesion Funds, and it is essential that Croatia develops the capacity to implement these funds. IPA is an opportunity to learn how to manage funds according to EU rules, and to build sustainable institutional structures, systems and skills for the transition to Structural Funds.

**Description**
The types of actions under this priority axis will fall under two main themes:

i. Specific, tailored support to coordinate and manage the OP, including programming, information and publicity, training in the preparation of EU project funding applications, project identification, appraisal and selection, implementation, financial management, control, monitoring, evaluation, reporting, audit, revisions of existing Operational Programmes and the preparation of Operational Programmes and the identification of projects for the next funding period;

ii. Aid to enhance the specification, collection and use of statistics, which will be necessary for effective monitoring and evaluation under IPA and, subsequently, the Structural Funds.

The activities will be largely specified and prescribed in the annual TA plan. The service and supply contracts will be awarded through competitive tender according to EU procurement rules and will be managed by the Central Finance and Contracting Agency for EU Programmes and Projects and the successful tenderer chosen by the Selection Committee.
Targets and indicators

Table 3.7: Indicators for evaluation for Priority axis 3: Technical assistance

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>Baseline data (year)</th>
<th>Final target</th>
<th>Frequency of reviewing</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff in the national bodies capable of independently identifying, preparing and assessing project applications</td>
<td>Nr</td>
<td>0 (2007)</td>
<td>40</td>
<td>3-year period</td>
<td>MEPPPC, MAFWM</td>
</tr>
<tr>
<td>OP funds absorbed</td>
<td>%</td>
<td>0 (2007)</td>
<td>100</td>
<td>3-year period</td>
<td>MEPPPC, MAFWM</td>
</tr>
</tbody>
</table>

Measure 3.1 – OP management and capacity building

Specific Objectives
The specific objective for this measure is to ensure efficient and effective OP management, and develop the institutional capacity for managing and absorbing IPA.

Rationale
One of the principal goals of implementing IPA is to build administrative capacity, and hence it is essential that Croatia is provided support to identify, train, develop and retain a body of skilled and motivated staff, working with effective systems and procedures for sound programme management. Therefore it is necessary to develop a sufficient pool of national expertise in the preparing and assessing of projects for future implementation thereby reducing the unit costs (and time) in preparing funding applications through a reduction in the use of external consultants. This will ensure both the successful management of IPA and a smooth transition into the still greater challenge of Structural Funds programming and the management of a portfolio of potentially thousands of projects.

Description
Through this measure support to the Operating Structure i.e. bodies dealing with the implementation of the Priority axis 1 and Priority axis 2 will be provided. That support will include training activities including the training of staff in the relevant bodies so as to be capable of preparing pipelines but it will also provide training and support for programme management activities such as monitoring, information and publicity, project appraisal and selection, implementation, contract management, financial management, control, monitoring, evaluation, reporting and audit. Given the needs to address staff turnover within the public administration allied to the demands of EU funds management which are typically higher than comparable civil service positions, co-financing of the salary costs of public officials within the management structure and project selection committees will be provided under this measure.

Eligible actions
It is intended to finance, support, train and consolidate the systems, processes and skills for EU funds management by the Croatian public administration (as the future managing, certifying, auditing and implementing agencies for Structural Funds) in charge of this OP.

Assistance under this measure refers to procurement contracts; it is intended that technical assistance will cover consultancy and delivery support (including advice, training and other costs) to the Croatian OP administration, in general but specifically to the Operating Structure for IPA III component – Environment i.e. bodies dealing with the implementation of the Priority axis 1 and Priority axis 2. That support will relate to the training activities for the:

a. Independent identification, preparation and assessment of projects and Operational Programmes (including revising the existing Operational Programmes) in the relevant sectors for future funding
periods as well as respective project applications by teams of individuals in the national bodies (Operating Structure) all in order to build up a base of national expertise in this field;
b. Capacity building for conducting of pre-feasibility and feasibility studies, environmental impact assessments, cost benefit analyses, financial and economic analyses, preliminary designs, affordability studies, sector consolidation studies;
c. Implementation and controls, including procurement & contract management (including support to the Operating Structure, use of supervising engineers, etc);
d. Monitoring (including the development of monitoring arrangements) the organisation and administration of Monitoring Committees and the development of the Management Information System;
e. Evaluation, particularly external evaluators engaged for interim and ongoing evaluations;
f. The preparation and implementation of information and publicity activities;
g. Co-financing of staff salary costs.

Assistance can additionally include the provision for translation & interpretation services as well as logistical expenses and supply of equipment or other items relating to the of Monitoring Committee.

**Selection criteria**
Assistance will be granted to those activities that will have the highest learning effect especially in relation to gaining knowledge and experience in project preparation / assessment.

**Final beneficiaries**
The primarily beneficiaries of this measure are bodies in the Operating Structure and members of the Monitoring Committees and Selection Committees.

**Monitoring Indicators**
**Table 3.8: Indicators for monitoring & evaluation for Measure 3.1 – OP management**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>Baseline data (year)</th>
<th>Final target</th>
<th>Frequency of reviewing</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainings provided for the public bodies for the implementation of PA 1 and PA 2 including trainings in preparation and assessment of project applications</td>
<td>Number</td>
<td>0 (2007)</td>
<td>10</td>
<td>annually</td>
<td>Project monitoring reports</td>
</tr>
<tr>
<td>Waste project applications assessed and submitted by the Operating Structure</td>
<td>Number</td>
<td>0 (2006)</td>
<td>3</td>
<td>annually</td>
<td>MEPPPC</td>
</tr>
<tr>
<td>Water project applications assessed and submitted by the Operating Structure</td>
<td>Number</td>
<td>0 (2006)</td>
<td>6</td>
<td>annually</td>
<td>MAFWM</td>
</tr>
<tr>
<td>Monitoring Committee meetings</td>
<td>Number</td>
<td>0 (2007)</td>
<td>4</td>
<td>annually</td>
<td>Project monitoring reports</td>
</tr>
</tbody>
</table>
3.3.  HORIZONTAL ISSUES

3.3.1. Equal opportunities for men and women

Gender Equality Law is in force in Croatia since July, 2003. It defines and regulates protection from discrimination on the grounds of gender, as well as equal opportunity mechanisms. The Gender Equality Ombudsperson monitors the implementation of the Gender Equality Law.

In September 2006, the Croatian Government adopted the National Policy for the Promotion of Gender Equality, 2006-2010. The objectives of the policy, which are of particular relevance to Components III & IV of IPA, include the reduction of female unemployment and elimination of discrimination, promotion of women’s entrepreneurship and improved enforcement of relevant labour laws. It also strengthens and promotes measures that support the reconciliation of professional and family obligations.

The Government has also adopted a strategic document on the main tasks of state administrative bodies in the process of accession to EU 2004-2007, one of which is noted as being to strengthen cooperation between national and local state mechanisms in relation to gender mainstreaming and continuous cooperation with non-governmental organisations active in the field of gender equality.

The involvement of society and communities in infrastructure construction, operation and maintenance will be sought, in an effort to contribute to the reduction of unemployment and poverty alleviation. Job opportunities can be enhanced in a sustainable way, through the employment of the Croatian labour force (male and female) especially in the post-construction phase for operations and infrastructure maintenance.

3.3.2. Environmental Protection and Sustainable Development

Environmental protection being one of the three pillars of the “Sustainable development concept” makes it clear that not just the Sustainable Development concept will be incorporated into this OP but even more this OP will have a direct input/impact on sustainable development. The current status and planned steps envisaged to achieve continuous improvement and protection of the environment are given in more detail throughout this Operational Programme. However, in more general terms it can be stated that measures undertaken under the Environmental Operational Programme will have twofold effects in regard to the Sustainable development concept:

- Investments in waste and water management (including drinking and waste water sub-sectors) will directly contribute to environmental protection in given areas;
- They will contribute to economic development through investments, job creation and the creation of adequate environmental conditions for living and business.

Furthermore, investments envisaged under the Priority axes will contribute to the implementation of the aquis in the field of environmental protection and to reaching the requested EU standards and “norms”, which is one of the key aspects of the EU integration process.

Having in mind the abovementioned, attention will be paid to sustainability and environmental protection requirements, inter alia, in the selection phase (see Chapter on selection criteria) where highest economic/ social/ environmental impact is set as one of the main selection criteria, but also through the monitoring and evaluation processes.

Since the Environmental Operational Programme is mainly focused on the major projects (investments of a value exceeding 10 m€), an important issue through which sustainability / environmental principles will be taken into account – is the necessity to carry out an Environmental Impact Assessment for planned investments.

All necessary environmental impact assessment procedures in line with EU requirements will be carried out by MEPPPC or the competent local authority. To implement the environmental impact assessment procedure, existing institutional structures will be used, and technical assistance will be sought to enhance professional capacity. Projects should not have negative effects on the natural assets of potential NATURA 2000 sites.
The Republic of Croatia has been performing environmental impact assessment for single developments since 1984, when the procedure was defined by the Act on Physical Planning and Spatial Development. Since 1994, when the Environmental Protection Act was adopted (OG 94/1994, 128/1999), the environmental impact assessment procedure is governed by this Act and its implementation regulation. The effective implementation regulation is the Ordinance on Environmental Impact Assessment (OG 59/00, 136/2004, 85/2006). The Act and Ordinance include most of the requirements from Council Directive 85/337/EEC of 27 June 1985 on assessment of the effects of certain public and private projects on the environment, as amended by Directives 97/11/EEC and 2003/35/EC, relating to: establishment of responsible bodies, EIA in a trans-boundary context, description of the EIA procedure, and assessment of direct and indirect effects.

The transposition of the remaining provisions of the Directive into Croatian legislation will be ensured by adoption of the new Environmental Protection Act in 2007, and the implementation regulation on environmental impact assessment. CARDS 2003 project “EIA Guidelines and Training” assisted in the transposition of Council Directive 85/337/EEC.

By adopting the new Environmental Protection Act and its sub-ordinate special regulations:


Moreover, a transposition of Directive 2004/35/EC of the European Parliament and Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage is envisaged. Recognised principles of environmental protection, including also the polluter pays principle, are already in force in Croatia.

3.3.3. Participation of civil society and geographical, sectoral and thematic concentration

The participation of representatives of civil society, along with other relevant institutions, in the preparation of the Operational Programme is described in Chapter 1.3. Partnership consultations. A detailed description of the concentration principle applied to this OP is given in Chapter 1.2.5.

3.4. COMPLEMENTARITIES AND SYNERGIES WITH OTHER FORMS OF ASSISTANCE

The EPOP will contribute to the achievement of Croatia’s global IPA objectives by improving conditions for growth and employment through the protection and improvement of the environment as well as of the administrative capacity. In this regard, EPOP’s synergies with other OPs within the SCF framework that contribute to increasing and improving the quality of human capital, the development of an innovation and knowledge society and the adaptability to economic and social changes are considered.

The EPOP contributes to strengthening economic integration by developing environmental infrastructure and enhancing access to services of general interest, by improving governance for a better quality of public policy, and by raising Croatia’s skills in environmental protection.

3.4.1. Complementarities and synergies with other SCF OP

All four Operational Programmes under IPA Component III and IV (Regional Competitiveness, Transport, Environment and Human Resource Development) are mutually dependent, since the performance of all sectors together is a key prerequisite for achieving sustainable development. In this sense, they are integrated in their contribution to Croatia’s economic, environmental and social future.

The complementarity and synergy between the four OPs is most evident in the light of the Strategic Coherence Framework for 2007 – 2013, since its main task is to assure the consistency between priorities / activities under...
IPA Components III and IV. In relation to the SCF, the Environmental Operational Programme is consistent with the other three OPs as follows:

**Regional competitiveness**
Adequately developed municipal (including environmental) infrastructure and social infrastructure is a precondition for economic development, attraction of investment and improvement of the quality of life, i.e. for enhancing business related and basic municipal and social infrastructure. The development of basic infrastructure is a prerequisite for the growth of productive investments and entrepreneurship activities. Additionally, investment conducted in the course of the EPOP will create opportunities to increase SME development, as well as to improve the investment climate and raise interest among domestic and foreign investors.

**Transport**
The development of transport links and modes is, on the one hand, a necessary prerequisite for economic development, but on the other, a sector that has a major influence on the environment (for example, the share of traffic in air pollution increased by an average of 20% in the period from 1990 to 1998). In this sense, the development of sustainable transport is closely linked to environmental protection and preservation; therefore emphasis is laid on the development of railway and inland waterway transport systems. This is also in line with the idea to promote multi-modal transport and generate traffic diversion effects, from polluting road to energy efficient rail/river transport modes.

**Human resources**
Investment in environmental infrastructure should stimulate short-term employment within the construction sector, but it will also underpin economic activity within the beneficiary regions. In both cases, it is important that employment demand is matched by skill supply. Strengthening the institutional capacity and efficiency of public administrations and public services at national, regional and local levels in regard to environmental sector related policy and investments is another prerequisite for implementation of the EPOP priorities and development in general (having in mind that institutional capacity related activities will be conducted through IPA Component I – as set out in the IPA Regulation).

All four OPs also have certain common goals of a more general nature – to help the relevant institutions to achieve readiness for EU membership and develop institutional capacity for, and practical experience of, the management of Structural Funds-type interventions, i.e. to take part in the EU’s Cohesion policy.

3.4.2. Complementarities and synergies with other IPA components
Besides the inter-linkages between the OPs covered by the SCF, clear and strong complementarities can be established in relation to the other three components:

**IPA Component I – Transition Assistance and Institutional Building**
Strengthening the institutional capacity and efficiency of public administrations and public services at national, regional and local levels in regard to environmental sector related policy and investments is another prerequisite for implementation of the EPOP priorities and development in general. Therefore a strong link between institutional building assistance under Component I – which main task is to provide capacity building support for alignment and implementation of environmental acquis to the relevant competent authorities at regional and national level and Component III, will be established and secured.

**IPA Component II – Regional and Cross-Border Assistance**
Due to the nature of environmental projects significant regional effects can be achieved specially in the case of water sub-sector related projects both in terms of large projects (that can have a strong and trans-boundary effect) and small ones (that can cover the border geographical layout). In that sense coordination between Component III (Environment) and Component II (cross border cooperation) will be assured (see section 5).

**IPA Component V – Rural Development**
Construction / upgrading of sewerage systems and WWTPs are envisaged as an indicative operation under ‘measure 1 - development of rural infrastructure’ of the third Priority Axis under IPA Component V. Moreover, municipalities with less than 20 000 inhabitants are envisaged as potential final beneficiaries of the mentioned
operations. That evidently makes the necessity for strong coordination and complementarity extremely important, in order to avoid overlaps and achieve maximum impact. As explained in sections 1.2.4 and 3 of this OP, besides large scale projects, the EPOP leaves the possibility for financing projects of a smaller scale, mainly related to the protection of ground water in the karst area (which is also mainly rural and with low population density). In that sense, the EPOP and the IPARD programme (IPA Rural Development Programme) have similar goals, but while in the case of IPARD, the focus will be on upgrading living / socio-economic conditions, the EPOP will be focused on the protection of ground water. Anyhow, strong coordination is a necessity and will be assured.

Coordination arrangements

A number of institutional arrangements are being proposed to promote complementarity and coherence between the various Components of IPA and the Environmental OP. The National IPA Coordinator ensures partnership between the Commission and the beneficiary country, and a close link between the general accession process and the use of assistance, and also bears overall responsibility for the coherence and co-ordination of the programmes. CODEF, headed by the National IPA Coordinator, takes overall responsibility for coordinating programming and monitoring activities under the IPA programme in Croatia. CODEF’s Department for EU Programmes in the Field of Capacity Building for EU Accession is responsible for co-ordinating IPA Components I, II and V. The Department for EU Programmes in the Field of Economic and Social Cohesion takes responsibility for the co-ordination of IPA Components III and IV. The Strategic Co-ordinator, placed under the responsibility of the National IPA Co-ordinator is responsible for co-ordinating assistance granted under the regional development component and the human resources development component.

Regarding the methods of co-ordination, the IPA Monitoring Committee will assume the function of the overall co-ordination of assistance granted under the IPA programme. Coordination will be ensured on the one hand through discussions on implementation / progress / performance of each IPA component and, on the other hand, through the participation of representatives of the bodies heading each of the IPA components (Operating Structures) in addition to NIPAC, NAO and the EC. An Environmental Sectoral Monitoring Committee will be established and will report to the IPA Monitoring Committee. It will also serve as the main co-ordination tool since it will, among other people include representatives of the EC, NIPAC, NAO and the Strategic Co-ordinator for Components III and IV. Additionally under the direct responsibility of the NIPAC / Strategic Co-ordinator regular coordination meetings for IPA components III and IV will be held.

With regard to project level coordination, the standard rule applies preventing financing a project from more than one EU source. By avoiding overlaps and enhancing synergy across measures, it was sought to enhance the impact of the limited IPA financing available to Croatia. Co-ordination of this Operational Programme with other OPs will, therefore, not only ensure that unnecessary overlapping is avoided, but will also promote possible complementarities and synergies.

The co-ordination of activities carried out by IFIs and other donors is ensured all along the programme cycle. In the programming phase, both CODEF and the Ministry of Finance coordinate the preparation of strategies and projects financed by the EU and IFIs in order to avoid duplication and achieve maximum synergies. In the implementation phase, representatives of the Ministry of Finance will be included in the IPA Monitoring Committees for projects which are financed by IFIs, while CODEF representatives will participate in progress monitoring meetings organised by the Ministry of Finance for projects financed through foreign loans and credits, as well as in audit missions undertaken by IFIs. In the case of any audit or evaluation mission organised by the European Commission for a specific project, representatives of the Ministry will be at the disposal of auditors/evaluators as necessary.

In addition, the State Secretary holds the function of the Deputy Chief Negotiator for EU Accession while the Deputy State Secretary is Sectoral Coordinator for Components III and IV, as well as is a member of the working group for negotiations on Chapter 22 Regional Policy and Coordination of Structural Instruments. This direct link with the accession negotiations process enables CODEF to ensure close coordination between EC funding and the accession process priorities – across all five of IPA components.
3.4.3. Complementarities and synergies with previous EU assistance and IFIs

3.4.3.1. Previous EU assistance

Assistance provided under IPA Component III (Environment) will build upon previous activities supported by the EU funds – namely CARDS, Phare and ISPA - in order to create a larger impact, as well as provide a consistent approach.

In February 2003, Croatia applied to join the EU and became an EU Candidate Country in June 2004. As a result, the EU pre-accession programmes, Phare, ISPA and Sapard, superseded CARDS as the main source of assistance funding for 2005 and 2006; for environmental projects funding comes from both Phare and ISPA.

From 2000 until now, a number of projects financed/co-financed by the EU were directed to the environmental sector. Analysing those projects, certain tendencies can be noticed.

- During the 2000–2005 period, EU assistance was in general terms directed towards activities related to EU environmental law approximation, mainly through strengthening the legal and institutional framework, drafting environmental strategies and management plans and project preparation.

- But from 2005 on with access to the pre-accession funds, that has started to change. While PHARE financed projects are, in a way, a continuation of what has been and still is being delivered through CARDS (i.e. activities related to the legislation approximation and Institutional capacity), the ISPA fund for the first time introduced co-financing of investments in “heavy” infrastructure (i.e. construction of WWTPs and regional landfills).

CARDS

In the environment sector, Croatia has received support from the EU CARDS programme48; from 2001 to 2004 this was the largest assistance programme running in the country. It supports 10 environment projects (total value € 10.4m) dealing with EU environmental law approximation (€ 3.3m), water related acquis (€ 2.8m) water information system (€ 0.8m), environmental assessment (€ 1.5m), waste management (€ 1.0m), and small-scale local waste management infrastructure (€ 1.8m).

Two CARDS projects have directly contributed to the development of major projects which are included in the EPOP’s indicative list of major projects:

- The CARDS 2001 project: “Municipal Environmental Management Capacity and Infrastructure” was completed in December 2005. It was an institutional development project for local and regional authorities in two Dalmatian counties (Šibenik-Knin and Zadar counties) providing assistance in waste management planning and practices with an investment component. The project contributed to the development of the Bikarac Regional Waste Management Centre by financing the construction of a new reception area and recycling yard for the Bikarac landfill and also by providing assistance to the City of Šibenik for obtaining a location permit and the preparation of the main project for the construction of the first phase of a Waste Management Centre. The first phase of the Bikarac Waste Management Centre project is financed under ISPA.

- The CARDS 2002 project: “Waste Management in Dalmatian Counties” started in December 2005 and was completed in May 2007. It provided support for strengthening waste management capacity in Dalmatia (with focus on Split-Dalmatia and Dubrovnik-Neretva Counties). The CARDS project was progressing through the collection of data, estimations of waste quantities, the selection of locations for future waste management centres in two counties, the completion of transfer station concepts, optimising of transport expenses etc. It resulted in the preparation of project documentation for an IPA application for the “Regional Waste Management Centre for the County of Split –Dalmatia” project.

48 M€ 262 allocated to 119 individual projects
The EPOP is focused on major projects; an important issue through which sustainability / environmental principles will be taken into account – is the necessity to carry out Environmental Impact Assessments for planned investments. For bringing environmental impact assessment procedures in line with EU requirements, Croatia received assistance through two CARDS projects:

- **CARDS 2003: “Environmental Impact Assessment – Guidelines and Training”** started in July 2005 and was completed in January 2007. The main outputs of the project were: Recommendations for changes to the Environmental Protection Law, the EIA Rulebook and EIA procedures; a comprehensive procedures manual aimed principally at competent authorities; a set of EIA guidelines targeted primarily at EIA practitioners. The Project brochures have been published (Croatian and English version) as well as the Technical Guidelines for drafting the Environmental Impact Assessment Study. In addition Guidelines for conducting an EIA procedure have been developed.

- **CARDS 2003 “Environmental Assessment of Development Strategies”** started in January 2006 and will last until the end of October 2007. It will help the authorities adopt the SEA Directive 2001/42/EC and strengthen their capacity for its implementation. Several activities have been carried out within the Project such as workshops for all the participants in the process (Ministries, Counties, NGO’s, developers of EIA studies/physical plans) the goal of which was to present the details of the Strategic EIA process. A SWOT analyses of the existing institutional implementation capacity has been made, the activities concerning the drafting of a Pilot Study on EIA (referring to the General Urban Plan of City of Šibenik) have started, four Strategies (Environmental protection, Energy, Tourism, Biodiversity) and two county physical plans (County of Istria and Split-Dalmatian County) will be the subject for the development of impact matrices and an analysis of the goals in the mentioned strategies during the development of physical plans; recommendations on the transposition of SEA Directive into the new Environmental Protection Act will be made.

Other projects dealing with EU environmental law approximation are: **CARDS 2002 “Strategy for EU Environmental Law Approximation”** which was completed in October 2006; **CARDS 2003 ”Approximation of Water Management Legislation with EU Water Acquis”** which started in May 2006 and will last 18 months; **CARDS 2004: “Capacity Building and Development of Guidelines for Implementing the Water Framework Directive”**. CARDS 2002 project “Strengthening Measures for the Croatian Environment Agency” included an analysis of the EU and Croatian environmental reporting legislation while its main outputs are (i) Development Strategy for Croatian Environment Agency and (ii) Environmental Information System functional design. The CARDS 2004 project “Support for Further Approximation with the Environmental Acquis” besides providing assistance for compliance with the IPPC Directive and for setting-up a greenhouse gas emission register, has a capacity building component for environmental investment projects in the waste management sector; the expected results within this component are: a training needs assessment for specified target groups in relation to the preparation of environmental investment projects; an Environmental Investment Project Preparation Manuel drafted; guidelines for investors drafted etc. The Project starts in September 2007 and it will last two years:

The CARDS 2001: ‘Project Preparation Facility – National Waste Management Strategy – Focus on Municipal Waste’ project was completed in 2003. This project produced a draft national waste management strategy for municipal waste; this has now been developed into the National Waste Management Strategy, which was adopted in September 2005.

**Phare**

The Phare programme currently supports 4 environmental projects with a total amount of € 9.372m (national co-financing € 0,934m).

The further improvement of waste management in Croatia, with a focus on hazardous waste and sites highly polluted by waste will be assisted by the Phare 2006 project “Development of hazardous waste management system including the identification and management of “hot spot” sites”. The project will establish a hazardous waste management system according to National Waste Management Strategy, particularly in relation to the identification, categorisation and, further management of “hot spot” sites and will increase the ability of relevant governmental authorities to apply and enforce the *acquis communautaire* relating to waste management. The
The project includes four main components: (i) “Hot spot” site management; (ii) the improvement and management of the existing system of hazardous waste data collection and preparation for Market studies for hazardous waste streams; (iii) The establishment of environmentally sound management for hazardous waste; (iv) training, educational seminars, study tours. The remediation of sites highly polluted by waste is one of the measures under Priority axis 1 of this EPOP.

Projects under the EPOP should not have negative effects on the natural assets of potential NATURA 2000 sites. Croatia has started with preparation of the programme NATURA 2000 within LIFE III – Third countries project and Emerald network project, which will be continued within the PHARE 2005 project: “Implementation of NATURA 2000 in Croatia (CRO-NATURA)”. The project is scheduled to be completed at the end of 2008. The overall objective of the project is the full compliance and implementation of the EU Habitats and Birds directives. The project’s purpose is to establish and further implement NATURA 2000 in Croatia and build the capacity of the State Institute for Nature Protection for the provision of biodiversity data to the European Environment Agency (EEA). The project is expected to result in:

- A complete proposal document for NATURA2000 to be submitted to the EC;
- The implementation of Article 6 (1) of the Habitats Directive;
- Management plans for potential NATURA 2000 sites;
- SINP capacity to implement Article 6 (3) and (4) of the HD;
- The assessment of plans and projects significantly affecting Nature 2000 sites;
- A Nature Protection Information System (NPIS) -according to EU requirements etc.

Another Phare project refers to the enhancement of environmental inspection for enforcement of new environmental legislation (Phare 2005); and a Phare 2006 project for the establishment and equipping of 12 stations for air quality monitoring within the national air quality monitoring network.

Croatia also participates in the Phare 2005 multi-country programme on Environment and Enlargement in 2005 which provides pre-accession assistance to four candidate/acceding countries (Bulgaria, Croatia, Romania and Turkey). The project has three sub-components, which include “Development of the capacity of environmental authorities through transfer of best practice and training to support effective use of financial resources”. This sub-component is expected to contribute to the elaboration of a national Environmental Financing Strategy and the training of national and local authorities for the effective use of EU funds.

**ISPA**

The ISPA programme is so far essential for gaining experience with co-financing investments in “heavy directives” infrastructure. The National ISPA Strategy for Environment was developed in June 2005. It sets priority waste management, water supply, sewage and wastewater treatment investment projects and is used as a planning document for use for 30M€ of ISPA support in the period 2005 and 2006. The three approved projects are:

- “Karlovac Water and Waste Water Programme”

  The main activities envisaged within this project are the following: construction of the WWTP of 100.000 p.e., investments in the water supply and sewerage systems and providing technical assistance (with equipment supply) to the Karlovac municipal company. The aim is to ensure the provision of safe drinking water in accordance with EU requirements and protection of the water environment in the Karlovac region and, in doing so, to achieve improved compliance with relevant EU directives. The project's total value is 36.0 M€, out of which 22.5 M€ (66%) is provided from ISPA funding and 13.5 M€ (34%) from national sources, including the repayment of an EBRD loan.
“Bikarac Regional Waste Management Centre (Phase I)”

The main activities envisaged within the project are the following: construction of a waste management centre for the Šibensko-kninska County - Bikarac, remediation of the Pirovac landfill, conduction of a pilot project on recycling and providing technical assistance to the municipal company. In Phase II of the project, the remaining landfills in the County will be remediated/closed and the recycling scheme will be expanded. The Financing Memorandum for the project was approved by the ISPA Management Committee in April 2006 and signed in September 2006. The total value of the project is 8.8 M€, out of which 6 M€ (68%) is being provided from ISPA funding and 2.8 M€ (32%) from national sources.

“IPA Project Pipeline Preparation (Environment)”

The main objective of the project is to provide assistance to the Croatian national authorities in the preparation of an IPA project pipeline for environmental projects (in the wastewater/water and waste sectors). The activities are targeted at projects in the municipal waste, wastewater and water supply sectors, according to the indicative list of projects (that is part of the projects application/Financing Memoranda). The Financing Memorandum for the project was approved by the ISPA Management Committee in April 2006 and signed in September 2006. The total value of the project is 1.46 M€, out of which 0.96 M€ (66%) is being provided from ISPA funding and 0.50 M€ (34%) from the State Budget.

Other programmes

Croatia takes part in, and benefits from, LIFE III – Third Countries and bi-lateral projects, but also from the CARDS financed regional initiatives, such as the Regional Environmental Reconstruction Programme (REReP), which has helped identify investment priorities in the environment sector, and the DABLAS Task Force (Danube Black Sea Task Force), which was set up in 2001 to provide a platform for cooperation, to ensure the protection of water and water–related ecosystems in the Danube and Black Sea.

Under the LIFE III – Third Countries programme, 14 projects have been approved for different beneficiaries in Croatia until 2005. Project “Guidelines Development for Starting Implementation of Waste Management Plan in the Republic of Croatia” had the objective of establishing capacity for the implementation of the National Waste Management Strategy. The project provided a series of waste management databases and prepared guidelines on site selection and technical and organisational solutions in waste management. The project was completed in November 2006. An ongoing waste management project is “Development of sustainable construction and demolition waste management system for Croatia” (being implemented by the Faculty of Construction in Zagreb). Through LIFE III – Third countries project “Building up National Ecological Network as a part of the Pan-European Ecological Network and NATURA 2000 (CRO-NEN)” and the Emerald network project, Croatia has started with the preparation of the NATURA 2000 programme. Accordingly, potential NATURA 2000 sites have been identified based on scientific data and the programme for collecting additional needed data has been prepared.

The DABLAS Task Force (Danube Black Sea Task Force) was set up in 2001 with the aim of providing a platform for cooperation to ensure the protection of water and water–related ecosystems in the Danube and Black Sea areas. This was in response to a Communication adopted by the European Commission in 2001, which highlighted priority actions required to improve the environmental situation in the region. The overall goal is to develop financing mechanisms for the implementation of investment projects for pollution reduction and the rehabilitation of ecosystems in the wider Black Sea region. Under the leadership of the DABLAS Task Force, the first project was initiated to prioritise water sector investment projects addressing nutrient reduction. 113 out of a total of 158 potential municipal sector projects were evaluated in terms of their environmental impacts, impacts on the Black Sea, potential financing and technological efficiency and compliance. The ICPDR – DABLAS database has been developed to include municipal, industrial, agro-industrial, wetland restoration, and agricultural & land use projects. The database is an interactive tool to be used for evaluating the remaining needs for investment and policy measures on a regional, national, and sector basis. The ICPDR DABLAS database is linked with the ICPDR emission inventories database.

49 REReP Priority Environmental Investment Programmeme (PEIP) contributed to investment capacity-building by identifying priorities and drafting proposals. As a result, a list of Croatia’s priority investment projects (waste, water, air) was compiled and presented at the PEIP Regional meeting in Brussels in September 2005.
In the framework of the DABLAS Task Force, the Danube Investment Support Facility (DISF) Project has been developed with the financial support of the EU, with the aim of supporting the preparation of specific projects, and agreed within DABLAS Task force as a priority project, in terms of the preparation of the relevant feasibility study. In the framework of the DISF Project, four projects were prepared, or are under preparation in Croatia: the Karlovac, Osijek, Vukovar and Slavonski Brod water and waste water projects.

3.4.3.2. International Finance Institutions (IFIs)

IFIs are already involved in certain activities related to environmental projects. IFIs represent possible sources of national co-financing for specific IPA projects, while at the same time, the programmes and plans of all IFIs have been taken into account while preparing this OP, and will continue to be reviewed when selecting individual projects for approval. Additionally, it is seen as useful to use the experience and expertise of the IFIs in the project preparation phase – for example, through existing initiatives such as DISF (Danube Investment Support Facility) and REREP (Regional Environmental Reconstruction Programme for South East Europe).

World Bank (WB) lending has focused on infrastructure, including the environment in projects such as: “Legislation Gap Analysis” (first project related to legislation harmonisation); Karst Ecosystem Conservation – KEC; The National Environmental Data Gathering Capacity (NEDGC); Coastal Cities Pollution Control Project for Croatia (value of programme first stage is approx. € 80 million to, inter alia, improve the quality of recipient waters and provide better water services in the Adriatic basins – see below) etc. The following projects are co-financed by the UNDP and the World Bank: UNDP/GEF - "Enabling Croatia to prepare its first National Communication in response to its commitments to the UNFCCC"; UNEP/GEF Project Development of the National Biosafety Framework.

As determined in the assessment strategy for Croatia in the forthcoming period, the WB will, inter alia focus on assisting the Government of Croatia in facilitating sustainable natural resource management through strengthening environmental management capacity, upgrading wastewater and water supply infrastructure and improving energy efficiency.

Within the Global Environment Facility (GEF) funded project “Determination of priority actions for the further elaboration and implementation of the Strategic Action Programme for the Mediterranean Sea”, Croatia has prepared a National Action Plan (NAP) for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources. NAP is primarily focused on determining proposals for environmental protection priority actions in the coastal areas of Croatia. The major environmental issue in the coastal area is wastewater pollution. NAP priorities herein are wastewater treatment and collection in the largest coastal cities of Split and Rijeka but also in further major coastal cities Šibenik, Dubrovnik, Pula and Zadar. Additionally, two sets of priorities were singled out for addressing pollution from industrial waste water, first including major industrial polluters with self-standing outfalls (in Rovinj, Zadar and Split), and other set of priorities which includes all other industries in the coastal area.

Solid waste management and disposal are further NAP priorities: it foresees the construction of two regional waste management centres for Split-Dalmatia and Primorje-Gorski Kotar Counties. Additionally, the NAP envisages the remediation of the largest landfills and dumpsites in the region which do not meet the provisions of the applicable regulations and pose an environmental risk. (Karepovac-Split, Sovjak and Viševac – Rijeka). Another NAP priority is hazardous waste management and disposal.

The national environmental plans, especially the programme for the protection of coastal water against pollution, and the mentioned Coastal Cities Pollution Control Project envisage the construction, upgrading, reconstruction and improvement of sewerage systems and waste water treatment systems with the aim of protecting and improving seawater quality, creating the conditions for a safe economic development in accordance with the objectives of environmental protection, protecting and improving the achieved level of environmental protection and meeting EU standards regarding the quality of the environment in local communities. Programme implementation is planned in three phases encompassing about 80 settlements in the coastal area. The first stage of the Programme started implementation in 2005 and it is planned to be finished in 2008. Construction works are being carried out in the following cities Opatija, Zadar, Rijeka and Biograd, Novigrad, Makarska, Omiš, Opuzen, Pula and the municipalities of Lovran, Matulji, Pakoštane and Sveti Filip i Jakov, Dugi Rat and
Rogoznica. 27 sub-projects (towns and municipalities), are envisaged for implementation in the second stage of Programme. Currently the technical project documentation is under preparation. This three stage programme is planned to be carried out over 15 years.

NAP’s solid waste management priorities envisage the solution of the waste management problems in the greater area of the City of Split and the greater area of the City of Rijeka. This is in line with National Waste Management Implementation Plan. The NAP’s solid waste management priorities are reflected in the EPOP’s indicative list of major projects where regional waste management centres in Split-Dalmatia and Primorje-Gorski Kotar Counties are two top priority projects. Also, the remediation of the Sovjak dumpsite is a project represented on this list. The remediation of landfills in Croatia is an ongoing activity supported by Environmental Protection and Energy Efficiency Fund co-financing, which also includes landfills in the coastal area.

In the infrastructure and environment sector, the European Bank for Reconstruction and Development (EBRD) envisages working with a number of large and medium-sized municipalities to develop their infrastructure projects for prospective EU co-financing. In addition, the Bank will continue to roll out instruments to reach small municipalities through local banks, and promoting investment in environmental infrastructure with donor support (EU and Netherlands). Some of the environmental projects in which the EBRD participated are: Zagreb’s solid waste programme and WWTP, as well as the improvement of Rijeka's sewerage system and the ISPA project “Karlovac water and waste water programme”. The EBRD has also started negotiations with the County of Istria to support the preparation and implementation of their project which is in the IPA project pipeline.

Although the transport sector will remain a priority for the European Investment Bank it is envisaged to direct more loans to both the environment sector (i.e. waste water treatment, Zagreb incinerator) and the health sector (Zagreb hospitals).

The KfW Entwicklungsbank envisages drinking water supply and sewage and waste disposal improvement as priority activities under the Social Infrastructure Operation area.

One of the five priority areas for the United Nations Development Programme in Croatia is “Environmental Governance” – with the aim of ensuring that natural resources are used in a sustainable manner and in compliance with the international obligations and agreements that the Republic of Croatia has assumed. So far activities and projects under the respective priority have been mainly related to strengthening institutional / administrative capacity under the climate change and biodiversity sectors.
### 3.5. INDICATIVE LIST OF MAJOR PROJECTS

**WASTE:**

The indicative list below represents an updated indicative ISPA project priority list with new projects for construction of county waste management centres included. Selection of all projects on the list is based upon criteria set out in Section 3.1. The first three projects (ranked according to their priority) are being proposed for IPA funding in the period 2007-2009.

<table>
<thead>
<tr>
<th>Nr</th>
<th>Project name</th>
<th>Type</th>
<th>Project preparation support</th>
<th>Estimated Total M€</th>
<th>Measure</th>
<th>Comments</th>
<th>Status</th>
</tr>
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</table>
| 1  | Regional Waste Management Centre Marišćina       | Construction          |                             | 41.78               | Measure 1.1       | The main objective of the Project is to establish integrated sustainable waste management system on a county level (305,505 inhabitants) Main activities:  
- Construction of new WMC – plateaus in operating zone, MBT, phase 1 of landfill area, wastewater and leachate treatment system, buffer zone, internal infrastructure (stage I)  
- Technical assistance in public awareness raising and supervision of works  
For IPA funding the construction of RWMC (without MBT facility) and technical assistance is being proposed | Is being prepared for funding in 2007 |
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<th>Nr</th>
<th>Project name</th>
<th>Type</th>
<th>Project preparation support</th>
<th>Estimated Total M€</th>
<th>Measure</th>
<th>Comments</th>
<th>Status</th>
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</table>
| 2  | Regional Waste Management Centre for the County of Split – Dalmatia* | Construction       | CARDS 2002                   | 55.7               | Measure 1.1 | The main objective is to establish integrated sustainable waste management system on a county level (464,000 inhabitants). Main activities:  
  - Construction of new WMC of the County of Split-Dalmatia including MBO facility (phase I)  
  - Construction of 4 transfer stations (TS) on islands and 4 TS in the mainland  
  - Optimizing of waste transport from TS to the RWMC  
  - Pilot study for separate collection of waste for town of Split  
  For IPA funding construction of WMC, transfer stations and pilot study is being proposed | Is being prepared for funding in 2007 |
| 3  | Regional Waste Management Centre for the County of Istria* | Construction       | EBRD                          | 45                 | Measure 1.1 | The main objective of the Project is to establish integrated sustainable waste management system on a county level (206,344 inhabitants)  
  Main activities:  
  - Construction of new RWMC-Kaštijun including MBO facility  
  - Construction of four Transfer Stations  
  - Vehicles for long range transport – between the transfer stations and the RWMC  
  - Technical Assistance in public awareness arising and supervision of the works  
  For IPA funding construction of new RWMC (without MBO facilities), technical assistances and vehicles for long range transport and transfer stations is being proposed | Is being prepared for funding in 2007 |
### PRIORITY AXIS 1 – Developing waste management infrastructure for establishing an integrated waste management system in Croatia

<table>
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<tr>
<th>Nr</th>
<th>Project name</th>
<th>Type</th>
<th>Project preparation support</th>
<th>Estimated Total M€</th>
<th>Measure</th>
<th>Comments</th>
<th>Status</th>
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<tbody>
<tr>
<td>4</td>
<td>Remediation and closing down of the Sovjak pit, County of Primorje-Gorski Kotar*</td>
<td>Remediation</td>
<td>IPA</td>
<td>25</td>
<td>Measure 1.2</td>
<td>The main objective is remediation and closing down of the abandoned hazardous waste landfill Sovjak, in karst region, in which had been deposited 250.000 m³ of hazardous waste (from refinery, shipyard and oil containers, etc). Main activities:&lt;br&gt;• Excavation and disposal/treatment of hazardous waste&lt;br&gt;• Stabilizing of remaining landfill against water infiltration&lt;br&gt;• Capping of the landfill area, biological recultivation of the landfill area and immediate surroundings&lt;br&gt;• Leachate control and treatment&lt;br&gt;• Reduction of adverse impact on soil, air and water in the area in conjunction with the remediation of the Visevac municipal waste landfill site&lt;br&gt;• Monitoring of environmental impacts of the closed landfill</td>
<td>In preparation</td>
</tr>
<tr>
<td>5</td>
<td>Waste Management Centre for the County of Dubrovnik-Neretva*</td>
<td>Construction</td>
<td>CARDS 2002 IPA</td>
<td>24.8</td>
<td>Measure 1.1</td>
<td>The main objective is to establish integrated sustainable waste management system on a regional (county) level (122,870 inhabitants). Main activities:&lt;br&gt;Phase I&lt;br&gt;• Construction of new RWMC including MBO facility&lt;br&gt;• Construction of 4 transfer stations (TS) on islands and 3 TS in the mainland&lt;br&gt;• Providing special vehicles for the optimizing of waste transporting from TS to the RWMC.&lt;br&gt;Phase II&lt;br&gt;• Constructing of facilities for pre-treatment of separately collected waste and sorting facility in scope of County Waste Management Zone</td>
<td>In preparation</td>
</tr>
</tbody>
</table>
### PRIORITY AXIS 1 – Developing waste management infrastructure for establishing an integrated waste management system in Croatia

<table>
<thead>
<tr>
<th>Nr</th>
<th>Project name</th>
<th>Type</th>
<th>Project preparation support</th>
<th>Estimated Total M€</th>
<th>Measure</th>
<th>Comments</th>
<th>Status</th>
</tr>
</thead>
</table>
| 6  | Regional Waste Management Centre for County of Zadar* | Construction | CARDS 2001 IPA              | 35.9               | Measure 1.1 | The main objective is to establish integrated sustainable waste management system on a county level (162,045 inhabitants). Main activities:  
- Construction of new WMC  
- Construction of transfer stations  
- Providing of the special vehicles for the optimizing of waste transporting from TS to the WMC | In preparation (estimated date for implementation – 2008) |
| 7  | Waste Management Centre for County of Virovitica-Podravina | Construction | IPA                         |                    | Measure 1.1 | The construction of waste management centre and other facilities needed for development of integrated waste management | In preparation (estimated date for implementation – 2008) |
| 8  | Waste Management Centre for North-West Croatia*   | Construction | IPA                         |                    | Measure 1.1 | The construction of waste management centre and other facilities needed for development of integrated waste management | In preparation (estimated date for implementation – 2008) |
| 9  | Waste Management Centre for East Slavonia*        | Construction | IPA                         |                    | Measure 1.1 | The construction of waste management centre and other facilities needed for development of integrated waste management | In preparation (estimated date for implementation – 2008) |
| 10 | Waste Management Centre for Karlovac County      | Construction | IPA                         |                    | Measure 1.1 | The construction of waste management centre and other facilities needed for development of integrated waste management | In preparation (estimated date for implementation – 2009) |
**PRIORITY AXIS 1 – Developing waste management infrastructure for establishing an integrated waste management system in Croatia**

<table>
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<th>Estimated Total M€</th>
<th>Measure</th>
<th>Comments</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>11</td>
<td>Waste Management Centre for County of Brodsko-Posavska</td>
<td>Construction</td>
<td>IPA</td>
<td>Measured</td>
<td>1.1</td>
<td>The construction of waste management centre and other facilities needed for development of integrated waste management</td>
<td>In preparation (estimated date for implementation – 2009)</td>
</tr>
<tr>
<td>12</td>
<td>Waste Management Centre for Sisak-Moslavina County</td>
<td>Construction</td>
<td>IPA</td>
<td>Measured</td>
<td>1.1</td>
<td>The construction of waste management centre and other facilities needed for development of integrated waste management</td>
<td>In preparation (estimated date for implementation – 2008)</td>
</tr>
</tbody>
</table>

*Projects were part of the ISPA Strategy Indicative list: W3, W1, W4, W6, W12, W11, W5 and W10*
**WATER:**
List below represent updated ISPA project priority list where also three new projects are determinate. Selection of all these below indicated projects is based upon criteria set out in Section 3.1.

<table>
<thead>
<tr>
<th>Nr</th>
<th>Project name</th>
<th>Type</th>
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<th>Estimated Total M€</th>
<th>Measure</th>
<th>Comments</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Slavonski Brod</td>
<td>Waste water treatment</td>
<td>DABLAS/DISF</td>
<td>27</td>
<td>Measure 2.1. Measure 2.2.</td>
<td>Significant preparatory work already undertaken. Interest of IFI – EIB. TA for completing IPA application assured. Investment includes construction of WWTP, sewage network and reconstruction of water supply system</td>
<td>Will be ready for funding in 2007</td>
</tr>
<tr>
<td>2</td>
<td>Knin - Drniš</td>
<td>Waste water treatment</td>
<td>EC support CARDS- ROP</td>
<td>11.7 + 4.7 = 16.4</td>
<td>Measure 2.1. Measure 2.2.</td>
<td>Support from CARDS project the significant preparatory work will be done (feasibility studies, design, &amp; tender documents).</td>
<td>Will be ready for funding in 2007</td>
</tr>
<tr>
<td>3</td>
<td>Osijek</td>
<td>Waste water treatment</td>
<td>DABLAS/DISF</td>
<td>20</td>
<td>Measure 2.2.</td>
<td>Significant preparatory work already undertaken. Interest of IFI – EIB. TA for completing IPA application assured. Project pre-appraisal from EC done in June 2005</td>
<td>Will be ready for funding in 2008</td>
</tr>
<tr>
<td>4</td>
<td>Vukovar</td>
<td>Waste water treatment</td>
<td>DABLAS/DISF</td>
<td>19</td>
<td>Measure 2.2.</td>
<td>Significant preparatory work already undertaken. Interest of IFI – EIB.</td>
<td>Will be ready for funding in 2008</td>
</tr>
<tr>
<td>5</td>
<td>Bjelovar-Bilogora*</td>
<td>Water supply</td>
<td>ISPA TA</td>
<td>55</td>
<td>Measure 2.1.</td>
<td>County with lowest level of water connections (31%) in Croatia. Amount of 55 mil EUR in accordance with TOR and estimation for ISPA TA</td>
<td>Selection of Consultants for preparation of technical project documentation is under procedure. Estimated date of</td>
</tr>
</tbody>
</table>
### PRIORITY AXIS 2 – Protecting Croatia’s water resources through improved water supply and integrated waste water management systems

<table>
<thead>
<tr>
<th>Nr</th>
<th>Project name</th>
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<th>Estimated Total M€</th>
<th>Measure</th>
<th>Comments</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>County with low level of water connections. Amount of 52 mil EUR in accordance with TOR and estimation for ISPA TA</td>
<td>Selection of Consultants for preparation of technical project documentation is under procedure. Estimated date of finalising IPA application with supporting documents is 2008.</td>
</tr>
<tr>
<td>6</td>
<td>Koprivnica-Krizevci*</td>
<td>Water supply</td>
<td>ISPA TA</td>
<td>52</td>
<td>Measure 2.1.</td>
<td></td>
<td>finalising IPA application with supporting documents is 2008.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Nova Gradiska</td>
<td>Waste water treatment</td>
<td>ISPA TA</td>
<td>13</td>
<td>Measure 2.2.</td>
<td>25,000 p.e. Amount of 13 mil EUR includes extension of network Amount of 8,55 mil EUR in accordance with TOR and estimation for ISPA TA: which includes WWTP and connecting sewer main</td>
<td>Selection of Consultants for preparation of technical project documentation is under procedure. Estimated date of finalising IPA application with supporting documents is 2008.</td>
</tr>
</tbody>
</table>
### PRIORITY AXIS 2 – Protecting Croatia’s water resources through improved water supply and integrated waste water management systems

<table>
<thead>
<tr>
<th>Nr</th>
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<th>Estimated Total M€</th>
<th>Measure</th>
<th>Comments</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Djakovo</td>
<td>Waste water treatment</td>
<td>ISPA TA</td>
<td>16,5</td>
<td>Measure 2.2.</td>
<td>21,000 inhabitants, planned capacity 30,000 p.e</td>
<td>Selection of Consultants for preparation of technical project documentation is under procedure. Estimated date of finalising IPA application with supporting documents is 2008.</td>
</tr>
<tr>
<td>9</td>
<td>Sisak</td>
<td>Waste water treatment</td>
<td>ISPA TA / EBRD</td>
<td>31</td>
<td>Measure 2.2.</td>
<td>TA for completing IPA application assured (EBRD)</td>
<td>In preparation Estimated date of finalising IPA application with supporting documents is 2008.</td>
</tr>
<tr>
<td>10</td>
<td>Vrbovec</td>
<td>Waste water treatment</td>
<td>IPA</td>
<td>6</td>
<td>Measure 2.2.</td>
<td></td>
<td>In preparation Estimated date of finalising IPA application with supporting documents is 2009</td>
</tr>
<tr>
<td>11</td>
<td>Krapina</td>
<td>Waste water</td>
<td>IPA</td>
<td>5.8</td>
<td>Measure</td>
<td></td>
<td>In preparation</td>
</tr>
</tbody>
</table>
## PRIORITY AXIS 2 – Protecting Croatia’s water resources through improved water supply and integrated waste water management systems

<table>
<thead>
<tr>
<th>Nr</th>
<th>Project name</th>
<th>Type</th>
<th>Project preparation support</th>
<th>Estimated Total M€</th>
<th>Measure</th>
<th>Comments</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Velika Gorica</td>
<td>Waste water treatment</td>
<td>IPA</td>
<td>5.5</td>
<td>Measure 2.2.</td>
<td>Estimated date of finalising IPA application with supporting documents is 2009.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Samobor</td>
<td>Waste water treatment</td>
<td>IPA</td>
<td>10</td>
<td>Measure 2.2.</td>
<td>Estimated date of finalising IPA application with supporting documents is 2009.</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Dugo Selo</td>
<td>IPA</td>
<td>14.8</td>
<td>Measure 2.2.</td>
<td>Estimated date of finalising IPA application with supporting documents is 2009.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Projects were part of the ISPA Strategy Indicative list: WS 4 and WS3
## 4. INDICATIVE FINANCIAL TABLES FOR THE ENVIRONMENT OPERATIONAL PROGRAMME

### YEARS 2007 - 2009

<table>
<thead>
<tr>
<th>Priority Axis 1: Developing waste management infrastructure for establishing an integrated waste management system in Croatia</th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
<th>Other (IFI, etc)</th>
<th>For information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring 1.1: Establishment of new waste management centres at county/regional levels</td>
<td>35,133,000</td>
<td>26,349,750</td>
<td>8,783,250</td>
<td>75%</td>
<td>0</td>
<td>(1) = (2) + (3) (Eur) (Eur) (Eur) (Eur) (4) = (2)/(1) (%) (Eur)</td>
</tr>
<tr>
<td>Measure 1.2: Remediation of sites highly polluted by waste (hot spots)</td>
<td>34,893,000</td>
<td>26,169,750</td>
<td>8,723,250</td>
<td>75%</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

### Priority Axis 2: Protecting Croatia's water resources through improved water supply and integrated wastewater management systems

<table>
<thead>
<tr>
<th></th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
<th>Other (IFI, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure 2.1: Establishment of modern water supply systems and networks</td>
<td>35,267,000</td>
<td>26,450,250</td>
<td>8,816,750</td>
<td>75%</td>
<td>0</td>
</tr>
<tr>
<td>Measure 2.2: Construction of WWTP for domestic and industrial wastewaters and upgrading of sewerage network</td>
<td>31,534,000</td>
<td>23,650,500</td>
<td>7,883,500</td>
<td>75%</td>
<td>0</td>
</tr>
</tbody>
</table>

### Technical Assistance

<table>
<thead>
<tr>
<th></th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
<th>Other (IFI, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure 3.1: OP management and capacity building</td>
<td>933,000</td>
<td>699,750</td>
<td>233,250</td>
<td>75%</td>
<td>0</td>
</tr>
</tbody>
</table>

### Total Years 2007 - 2009

<table>
<thead>
<tr>
<th></th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
<th>Other (IFI, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>71,333,000</td>
<td>53,499,750</td>
<td>17,833,250</td>
<td>75%</td>
<td>0</td>
</tr>
</tbody>
</table>

Regarding waste sub-sector, the potential national sources of financing are Environment Protection and Energy Efficiency Fund, Croatian financial institutions, counties and local budgets. With regard to IFIs, EBRD has expressed its interest to give technical assistance for a development of project documentation for the project: Regional Waste Management Centre for the County of Istria which will be followed by the loan for sub financing the implementation of the project.

Regarding water sub-sector the potential national sources of financing are State Budget, Municipality Budget, County Budget, Croatian Waters and IFI. With regard to IFIs, EIB has expressed its interest take part in financing of projects in Town Osijek and Slavonski Brod.
### YEAR 2007

<table>
<thead>
<tr>
<th>Priority Axis 1: Developing waste management infrastructure for establishing an integrated waste management system in Croatia</th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
<th>Other (IFI, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>11,133,000</td>
<td>8,349,750</td>
<td>2,783,250</td>
<td>75%</td>
<td>0</td>
</tr>
<tr>
<td>Measure 1.1: Establishment of new waste management centres at county/regional levels</td>
<td>11,059,667</td>
<td>8,294,750</td>
<td>2,764,917</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>Measure 1.2: Remediation of sites highly polluted by waste (hot spots)</td>
<td>73,333</td>
<td>55,000</td>
<td>18,333</td>
<td>75%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Priority Axis 2: Protecting Croatia’s water resources through improved water supply and integrated wastewater management systems</th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
<th>Other (IFI, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>11,200,000</td>
<td>8,400,000</td>
<td>2,800,000</td>
<td>75%</td>
<td>0</td>
</tr>
<tr>
<td>Measure 2.1: Establishment of modern water supply systems and networks</td>
<td>2,196,750</td>
<td>1,647,500</td>
<td>549,250</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>Measure 2.2: Construction of WWTP for domestic and industrial wastewaters and upgrading of sewerage network</td>
<td>9,003,250</td>
<td>6,752,500</td>
<td>2,250,750</td>
<td>75%</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Technical Assistance</th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
<th>Other (IFI, etc)</th>
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<tr>
<td>Total</td>
<td>333,000</td>
<td>249,750</td>
<td>83,250</td>
<td>75%</td>
<td>0</td>
</tr>
<tr>
<td>Measure 3.1 OP management</td>
<td>333,000</td>
<td>249,750</td>
<td>83,250</td>
<td>75%</td>
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<table>
<thead>
<tr>
<th>Total Year 2007</th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
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<th>Other (IFI, etc)</th>
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<tbody>
<tr>
<td>Total</td>
<td>22,666,000</td>
<td>16,999,500</td>
<td>5,666,500</td>
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YEAR 2008

<table>
<thead>
<tr>
<th>Priority Axis 1: Developing waste management infrastructure for establishing an integrated waste management system in Croatia</th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
<th>Other (IFI, etc)</th>
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<tr>
<td></td>
<td>(1) = (2) + (3)</td>
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<td>(3)</td>
<td>(4) = (2)/(1)</td>
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</tr>
<tr>
<td>Measure 1.1: Establishment of new waste management centres at county/ regional levels</td>
<td>11.833.000</td>
<td>8.874.750</td>
<td>2.958.250</td>
<td>75%</td>
<td>0</td>
</tr>
<tr>
<td>Measure 1.2: Remediation of sites highly polluted by waste (hot spots)</td>
<td>11.759.667</td>
<td>8.819.750</td>
<td>2.939.917</td>
<td>75%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Priority Axis 2: Protecting Croatia’s water resources through improved water supply and integrated wastewater management systems</th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
<th>Other (IFI, etc)</th>
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<td>(1) = (2) + (3)</td>
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<td>(3)</td>
<td>(4) = (2)/(1)</td>
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<tr>
<td>Measure 2.1. Establishment of modern water supply systems and networks</td>
<td>11.867.000</td>
<td>8.900.250</td>
<td>2.966.750</td>
<td>75%</td>
<td>0</td>
</tr>
<tr>
<td>Measure 2.2 Construction of WWTP for domestic and industrial wastewaters and upgrading of the sewerage network</td>
<td>11.867.000</td>
<td>8.900.250</td>
<td>2.966.750</td>
<td>75%</td>
<td>0</td>
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<table>
<thead>
<tr>
<th>Technical Assistance</th>
<th>Total Year 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure 3.1 OP management and capacity building</td>
<td>300.000</td>
</tr>
</tbody>
</table>

| Total Year 2008 | 24.000.000 | 18.000.000 | 6.000.000 | 75% | 0 |
## YEAR 2009

<table>
<thead>
<tr>
<th>Priority Axis 1: Developing waste management infrastructure for establishing an integrated waste management system in Croatia</th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
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<tr>
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<td>(2)</td>
<td>(3)</td>
<td>(4) = (2)/(1)</td>
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</tr>
<tr>
<td>(Eur)</td>
<td>(Eur)</td>
<td>(Eur)</td>
<td>(%)</td>
<td>(Eur)</td>
<td></td>
</tr>
<tr>
<td>Priority Axis 1: Developing waste management infrastructure for establishing an integrated waste management system in Croatia</td>
<td>12,167,000</td>
<td>9,125,250</td>
<td>3,041,750</td>
<td>75%</td>
<td>0</td>
</tr>
<tr>
<td>Measure 1.1: Establishment of new waste management centres at county/ regional levels</td>
<td>12,073,666</td>
<td>9,055,250</td>
<td>3,018,416</td>
<td>75%</td>
<td></td>
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<tr>
<td>Measure 1.2. Remediation of sites highly polluted by waste (hot spots)</td>
<td>93,334</td>
<td>70,000</td>
<td>23,334</td>
<td>75%</td>
<td></td>
</tr>
</tbody>
</table>

## Priority Axis 2: Protecting Croatia’s water resources through improved water supply and integrated wastewater management systems

<table>
<thead>
<tr>
<th>Priority Axis 2: Protecting Croatia’s water resources through improved water supply and integrated wastewater management systems</th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
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<td>(2)</td>
<td>(3)</td>
<td>(4) = (2)/(1)</td>
<td></td>
</tr>
<tr>
<td>(Eur)</td>
<td>(Eur)</td>
<td>(Eur)</td>
<td>(%)</td>
<td>(Eur)</td>
<td></td>
</tr>
<tr>
<td>Priority Axis 2: Protecting Croatia’s water resources through improved water supply and integrated wastewater management systems</td>
<td>12,200,000</td>
<td>9,150,000</td>
<td>3,050,000</td>
<td>75%</td>
<td>0</td>
</tr>
<tr>
<td>Measure 2.1. Establishment of modern water supply systems and networks</td>
<td>121,400</td>
<td>91,050</td>
<td>30,350</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>Measure 2.2 Construction of WWTP for domestic and industrial wastewaters and upgrading of sewerage network</td>
<td>12,078,600</td>
<td>9,058,950</td>
<td>3,019,650</td>
<td>75%</td>
<td></td>
</tr>
</tbody>
</table>

## Technical Assistance

<table>
<thead>
<tr>
<th>Technical Assistance</th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
<th>Other (IFI, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) = (2) + (3)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4) = (2)/(1)</td>
<td></td>
</tr>
<tr>
<td>(Eur)</td>
<td>(Eur)</td>
<td>(Eur)</td>
<td>(%)</td>
<td>(Eur)</td>
<td></td>
</tr>
<tr>
<td>Technical Assistance</td>
<td>300,000</td>
<td>225,000</td>
<td>75,000</td>
<td>75%</td>
<td>0</td>
</tr>
<tr>
<td>Measure 3.1 OP management and capacity building</td>
<td>300,000</td>
<td>225,000</td>
<td>75,000</td>
<td>75%</td>
<td></td>
</tr>
</tbody>
</table>

## Total Year 2009

<table>
<thead>
<tr>
<th>Total Year 2009</th>
<th>Total Public expenditure</th>
<th>Community Contrib. (IPA)</th>
<th>National Public Contrib.</th>
<th>IPA cofinancing rate</th>
<th>Other (IFI, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) = (2) + (3)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4) = (2)/(1)</td>
<td></td>
</tr>
<tr>
<td>(Eur)</td>
<td>(Eur)</td>
<td>(Eur)</td>
<td>(%)</td>
<td>(Eur)</td>
<td></td>
</tr>
<tr>
<td>Total Year 2009</td>
<td>24,667,000</td>
<td>18,500,250</td>
<td>6,166,750</td>
<td>75%</td>
<td>0</td>
</tr>
</tbody>
</table>
5. **IMPLEMENTATION PROVISIONS**

5.1. **MANAGEMENT AND CONTROL STRUCTURES**

This chapter of the Operational Programme describes the systems and arrangements in place as they are known at the time of the drafting the Operational Programme. However, a number of critical decisions regarding structures and responsibilities, as well as management and information systems, will be taken in the context of the accreditation for conferral of decentralised management, which follows a different timing from the adoption of the Operational Programme. To this end, the Framework Agreement, as well as the Financing Agreement to be signed after conferral of decentralised management, will set out the detailed provisions regarding management and control systems. The provisions in this chapter must therefore be understood as subject to latter adaptations by the applicable provisions of these agreements, where required.

CODEF will oversee the implementation of all five components of the IPA programme. The State Secretary of CODEF is appointed as the National IPA Coordinator. The role of the Strategic Co-ordinator for IPA Components III & IV will be assumed by the Deputy State Secretary of CODEF. The Strategic Coordinator will ensure that there is complementarity and coherence between the programmes implemented in the regional development and human resources development spheres, especially taking into account the limited amount of financial resources available under IPA and the need for the concentration of activities.

5.1.1. **Bodies and authorities**

Based on the IPA Implementing Regulation, the Croatian Government has adopted its own legal act/s to designate specific bodies for IPA management and implementation50.

Under the provisions of this Regulation, the following individuals/bodies have been or will be designated / established:

- National IPA Coordinator
- Strategic Coordinator for the regional development and the human resources development components
- Competent Accrediting Officer
- National Authorising Officer
- National Fund
- Audit Authority
- Operating Structure

With the exception of the Operating Structure and the role of the Strategic Coordinator, these bodies essentially perform tasks which are generally applicable to all IPA components in accordance with their functions specified in the relevant articles of the IPA Implementing Regulation.

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50 Regulation on the Scope and Contents of Responsibilities and the Authority of Bodies Responsible for Managing the Instrument For Pre-Accession Assistance (OG 18/2007); Amendments to the Regulation on the Scope and Contents of Responsibilities and the Authority of Bodies Responsible for Managing the Instrument For Pre-Accession Assistance (OG 82/2007)

Decision on the Appointment of Individuals Responsible for Managing the Instrument for Pre-Accession Assistance (IPA) (OG 18/2007); Amendment to the Decision on the Appointment of Individuals Responsible for Managing the Instrument for Pre-Accession Assistance (IPA) (OG 82/2007)
Accordingly, in line with the provisions of Article 7.3 of the afore-mentioned Regulation and as specified in
E/1368/2007], such functions will be incorporated under the Framework Agreement to be concluded
between the Commission and Croatia.

Operating Structure
This Operational Programme will be managed by the Head of the Operating Structure who will be
responsible for the following functions in compliance with Article 28.2 of the IPA Implementing Regulation:

- Drafting the annual or multi-annual programmes;
- Programme monitoring and guiding the work of the Sectoral Monitoring Committee as defined in
  Article 59, notably by providing the documents necessary for monitoring the quality of
  implementation of the programmes;
- Drawing up the sectoral annual and final implementation reports defined in Article 61(1) and, after
  their examination by the Sectoral Monitoring Committee, submitting them to the Commission, to the
  National IPA Co-ordinator and to the National Authorising Officer;
- Ensuring that operations are selected for funding and approved in accordance with the criteria and
  mechanisms applicable to the programmes, and that they comply with the relevant Community and
  national rules;
- Setting up procedures to ensure the retention of all documents required to ensure an adequate
  audit trail, in accordance with Article 20;
- Arranging for tendering procedures, grant award procedures, the ensuing contracting, and making
  payments to, and recoveries from, the final beneficiary;
- Ensuring that all bodies involved in the implementation of operations maintain a separate
  accounting system or a separate accounting codification;
- Ensuring that the National Fund and the National Authorising Officer receive all necessary
  information on the procedures and verifications carried out in relation to expenditure;
- Setting up, maintaining and updating the reporting and information system;
- Carrying out verifications to ensure that the expenditure declared has actually been incurred in
  accordance with applicable rules, the products or services have been delivered in accordance with
  the approval decision, and the payment requests by the final beneficiary are correct. These
  verifications shall cover administrative, financial, technical and physical aspects of operations, as
  appropriate;
- Ensuring internal audit of its different constituting bodies;
- Ensuring irregularity reporting;
- Ensuring compliance with the information and publicity requirements.

The Operating Structure (OS) will be composed of the following specific bodies in accordance with Article 31
of the IPA Implementing Regulation:

- The Ministry of Environment Protection, Physical Planning and Construction (MEPPPC),
- The Ministry of Agriculture, Forestry and Water Management (MAFWM),
- Croatian Waters (CW),
- The Environment Protection and Energy Efficiency Fund (EPEEF),
- The Central Finance and Contracting Agency for EU Programmes and Projects (CFCA).
The position and level of responsibility, as well as the Heads of specific bodies within the Operating Structure, are shown in the following table:

<table>
<thead>
<tr>
<th>Level of Responsibility</th>
<th>Titles of the bodies within the Operating Structure</th>
<th>Specific bodies within the Operating Structure Heads of specific bodies within the Operating Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Operational Programme level</td>
<td>Body Responsible for OP</td>
<td>The Ministry of Environment Protection, Physical Planning and Construction State Secretary for Environment Protection Ulica Republike Austrije 14, 10000 Zagreb</td>
</tr>
</tbody>
</table>
| II. Priority/Measure level | Body Responsible for Priority/Measure | **Priority Axis 1**  
The Ministry of Environment Protection, Physical Planning and Construction  
Directorate for Strategic and Integration Processes in Environmental Protection  
Assistant Minister  
Ulica Republike Austrije 14, 10000 Zagreb  
**Priority Axis 2**  
The Ministry of Agriculture, Forestry and Water Management  
Directorate for Water Policy and International Projects  
State Secretary for Water Management  
Ulica grada Vukovara 220, 10000 Zagreb  
**Priority Axis 3**  
The Ministry of Environment Protection, Physical Planning and Construction  
Directorate for Strategic and Integration Processes in Environmental Protection  
Assistant Minister  
Ulica Republike Austrije 14, 10000 Zagreb  |
| III. Project level | Implementing Body (Contracting Authority) | **The Environment Protection and Energy Efficiency Fund**  
Director  
Ksaver 208, 10000 Zagreb  
**Croatian Waters**  
Deputy Director  
Ulica grada Vukovara 220, 10000 Zagreb  
**Central Finance and Contracting Agency for EU Programmes and Projects (CFCA)**  
Head of CFCA  
Katančićeva 5, 10000 Zagreb |
The State Secretary of the Ministry of Environment Protection, Physical Planning and Construction will act as the Head of Operating Structure in the meaning of Article 167 (3) of the IPA Implementing Regulation.

Any personnel changes in the Heads of the specific bodies referred to above will be notified to the Commission, as appropriate, including any changes which affect the accreditation of the Operating Structure and the Commission's subsequent conferral of management powers.

**Distribution of functions**

The Ministry of Environment Protection, Physical Planning and Construction (as the Body Responsible for the OP) bears overall responsibility for the management of the Operational Programme and executes the following functions in relation to the Operational Programme as a whole:

- Coordination of Operational Programme preparation and adjustment;
- Coordination of programme monitoring in accordance with provisions of Article 59 of the IPA Implementing Regulation;
- Coordination of the preparation of the annual and final sectoral reports (Article 169 of the IPA Implementing Regulation);
- Setting up procedures for the retention of all documents to ensure a sufficiently detailed audit trail (Article 20 of the IPA Implementing Regulation);
- Organisation of interim evaluations during the period of programme implementation;
- Setting up, maintaining and updating a reporting and information system;
- Ensuring that all bodies involved in the implementation of operations maintain a separate accounting system or a separate accounting codification;
- Ensuring that the National Fund and the National Authorising Officer receive all necessary information on the procedures and verifications carried out in relation to expenditure;
- Ensuring internal audit of its different constituent bodies;
- Ensuring irregularity reporting;
- Ensuring risk management reporting;
- Ensuring compliance with the information and publicity requirements;

The Ministry of Environment Protection, Physical Planning and Construction (as the Body Responsible for a Priority/Measure) will specifically execute the following tasks for all measures within Priority Axis 1 – Developing Waste Management Infrastructure for Establishing and Integrated Waste Management System in Croatia and for Priority Axis 3 – Technical Assistance:

- Preparation of the sections of the Operational Programme within its sectoral area of responsibility;
- Preparation of monitoring data/reports within its sectoral area of responsibility;
- Preparation of relevant sections of sectoral annual and final reports, within their area of responsibility;
- Ensuring that all the relevant information is available to ensure at all times a sufficiently detailed audit trail;
- Identification of the intended final beneficiaries, the expected selection modalities and possible related specific selection criteria (Article 155 of IPA Implementing Regulation);
- Ensuring that operations within their sectoral area of responsibility are selected for funding and approved in accordance with the criteria applicable of the OP;
- In its capacity as a beneficiary, assistance in the technical preparation and management of the projects on the basis of formal agreements with the implementing body;
• Quality appraisal of major projects prepared by the Final Beneficiaries (where relevant) and their submission to the National IPA Coordinator;
• Submission to the National Fund of requests for payment and all supporting documents;
• Preparing and submitting all necessary information on the procedures and verifications carried out in relation to expenditure;
• Retention of all documents and ensuring that all the relevant information is available to provide for a sufficiently detailed audit trail;
• Internal audit;
• Irregularity reporting;
• Risk management reporting;
• Compliance with the information and publicity requirements.

The Ministry of Agriculture, Forestry and Water Management (as the Body Responsible for a Priority/Measure) will execute the following functions for all measures within the Priority Axis 2 – Protecting Croatia’s Water Resources through Improved Water supply and Integrated Wastewater Management System:

• Preparation of the sections of the Operational Programme within its sectoral area of responsibility;
• Preparation of monitoring data/reports within its sectoral area of responsibility;
• Preparation of relevant sections of sectoral annual and final reports, within their area of responsibility;
• Ensuring that all the relevant information is available to ensure at all times a sufficiently detailed audit trail;
• Identification of the intended final beneficiaries, the expected selection modalities and possible related specific selection criteria (Article 155 of IPA Implementing Regulation);
• Ensuring that operations within their sectoral area of responsibility are selected for funding and approved in accordance with criteria applicable to the OP;
• In its capacity as a beneficiary, assistance in the technical preparation and management of the projects on the basis of formal agreements with the implementing body;
• Quality appraisal of major projects prepared by the Final Beneficiaries (where relevant) and their submission to the National IPA Coordinator;
• Submission to the National Fund of requests for payment and all supporting documents;
• Preparation and submitting all necessary information on the procedures and verifications carried out in relation to expenditure;
• Retention of all documents and ensuring that all the relevant information is available to provide for a sufficiently detailed audit trail;
• Internal audit;
• Irregularity reporting;
• Risk management reporting;
• Compliance with the information and publicity requirements.
The Environmental Protection and Energy Efficiency Fund (as an Implementing Body) will execute the following functions for all measures within the Priority Axis 1 – Developing Waste Management Infrastructure for Establishing and Integrated Waste Management System in Croatia:

- Verification of tender documents received from beneficiary institutions and preparation of complete tender dossier;
- Arranging for tendering procedures and contract award procedures;
- Acting as the Contracting Authority;
- Contract implementation;
- Preparation and submission of payment claims to the body responsible for measure/priority;
- Making payments to, and recoveries from, the final beneficiary;
- Ensuring that the body/ies responsible for priority/measure receive(s) all necessary information on the procedures and verifications carried out in relation to expenditure;
- Carrying out verifications to ensure that the expenditure declared has actually been incurred in accordance with applicable rules, the products or services have been delivered in accordance with the approval decision, and the payment requests by the final beneficiary are correct. These verifications shall cover administrative, financial, technical and physical aspects of operations, as appropriate;
- Support in the preparation of documents for the sectoral monitoring committee on the progress made towards achieving targets of the measures;
- Support in the preparation of annual and final sectoral implementation reports;
- Maintenance of a separate accounting system or a separate accounting codification;
- Internal audit;
- Retention of all documents and ensuring that all the relevant information is available to provide for a sufficiently detailed audit trail;
- Irregularity reporting.

The Croatian Waters (as an Implementing Body) will execute the following functions for all measures within the Priority Axis 2 – Protecting Croatia’s Water Resources through Improved Water supply and Integrated Wastewater Management System:

- Verification of tender documents received from beneficiary institutions and preparation of complete tender dossier;
- Arranging for tendering procedures and contract award procedures;
- Acting as the Contracting Authority;
- Contract implementation;
- Preparation and submission of payment claims to the body responsible for measure/priority;
- Making payments to, and recoveries from, the final beneficiary;
- Ensuring that the body/ies responsible for priority/measure receive(s) all necessary information on the procedures and verifications carried out in relation to expenditure;
- Carrying out verifications to ensure that the expenditure declared has actually been incurred in accordance with applicable rules, the products or services have been delivered in accordance with the approval decision, and the payment requests by the final beneficiary are correct. These verifications shall cover administrative, financial, technical and physical aspects of operations, as appropriate;
• Support in preparation of documents for the sectoral monitoring committee on progress made towards achieving targets of the measures;
• Support in the preparation of annual and final sectoral implementation reports;
• Maintenance of a separate accounting system or a separate accounting codification;
• Internal audit;
• Retention of all documents and ensuring that all the relevant information is available to provide for a sufficiently detailed audit trail;
• Irregularity reporting.

The Central Finance and Contracting Agency for EU Programmes and Projects (CFCA) (as an Implementing Body) will execute the following functions for measure within the Priority Axis 3 - Technical Assistance:

• Verification of tender documents received from beneficiary institutions and preparation of complete tender dossier;
• Arranging for tendering procedures and contract award procedures;
• Acting as the Contracting Authority;
• Contract implementation;
• Preparation and submission of payment claims to the body responsible for measure/priority;
• Making payments to, and recoveries from, the final beneficiary;
• Ensuring that the body/ies responsible for priority/measure receive(s) all necessary information on the procedures and verifications carried out in relation to expenditure;
• Carrying out verifications to ensure that the expenditure declared has actually been incurred in accordance with applicable rules, the products or services have been delivered in accordance with the approval decision, and the payment requests by the final beneficiary are correct. These verifications shall cover administrative, financial, technical and physical aspects of operations, as appropriate;
• Support in preparation of documents for the sectoral monitoring committee on progress made towards achieving targets of the measures;
• Support in the preparation of annual and final sectoral implementation reports;
• Maintenance of a separate accounting system or a separate accounting codification;
• Internal audit;
• Retention of all documents and ensuring that all the relevant information is available to provide for a sufficiently detailed audit trail;
• Irregularity reporting.

All the bodies within the Operating Structure are ultimately accountable to the Ministry of Environment Protection, Physical Planning and Construction which bears overall responsibility for the Operational Programme management, and for the execution of their specific tasks in relation to this Operational Programme. A detailed organigramme of the Operational Programme management is provided in Annex V.

5.1.2. Separation of functions
In accordance with the Article 21.2 of the IPA Implementing Regulation, the appropriate segregation of duties will be ensured between and within the designated bodies.
Separation of functions between the bodies
The separation of functions results from a division of tasks as described above. This includes the following principles:

− on the one hand, a clear separation between verifications, controls, and evaluations to be carried out by the Operating Structure and by the National Fund; and on the other
− a clear separation between the audits carried out by the Audit Authority and the implementation and payment procedures.

Separation of functions within the bodies
The organisational structure of the bodies and their internal management and control procedures will take into account all requirements to ensure a proper separation of functions. This includes the following principles:

− before an operation is authorised, the operational and financial aspects shall be verified by members of staff other than the one responsible for initiation or implementation of the operation;
− certificates of statement of expenditure shall be drawn up by a person or department within the National Fund who is functionally independent from any services that approve claims;
− the initiation, ex-ante, and ex-post controls are separate functions, to be carried out by different persons, functionally independent from each other.

5.2. MONITORING AND EVALUATION
5.2.1. Monitoring arrangements
In order to ensure coherence and coordination in the implementation of the IPA components, programmes and operations, as well as to follow the progress in the implementation of IPA assistance, the following monitoring committees will be established:

− IPA Monitoring Committee;
− Sectoral Monitoring Committee for the Environmental Protection Operational Programme.

IPA Monitoring Committee
Croatia will establish an IPA Monitoring Committee to ensure coherence and coordination in the implementation of all five Components of IPA. The IPA Monitoring Committee shall include:

− (A) representative(s) of the European Commission;
− The National IPA Coordinator;
− The Competent Authorising Officer;
− The National Authorising Officer;
− The Strategic Coordinator for Components III and IV;
− Representatives of the IPA Operating Structures.

Sectoral Monitoring Committee
The Head of the Operating Structure will establish a Sectoral Monitoring Committee within 6 months after the entry into force of the IPA Implementing Regulation
This Committee will be co-chaired by the Head of the Operating Structure and a representative of the European Commission. Its members will include the National IPA Coordinator or his/her representative, the National Authorising Officer or his/her representative, a representative of the European Commission, the Strategic Coordinator for Components III and IV or his/her representative, the Head of the National Fund or his/her representative, representatives of all specific bodies making up the Operating Structures as well as representatives from civil society and socio-economic partners; the Committee will also include regional and/or national organisations with a relevant interest in contributing to the effective implementation of the programme to be agreed at its 1st meeting.
In order to ensure sufficient representation and membership, the composition of the Sectoral Monitoring Committee can be reviewed and extended by the Head of the Operating Structure in agreement with the European Commission.

The Sectoral Monitoring Committee will be assisted by a permanent secretariat provided by the Operating Structure for the preparation of papers for discussion by the Committee or for clearance by written procedure.

The secretariat will be established within the Ministry of Environment Protection, Physical Planning and Construction - the Directorate for Strategic and Integration Processes in Environmental Protection (Sector for EU).

The Sectoral Monitoring Committee will report to the IPA Monitoring Committee. Its tasks will include:

a. Considering and approving the general criteria for selecting the operations and approving any revision of those criteria in accordance with programming needs;

b. Reviewing at each meeting progress towards achieving the specific targets of the Operational Programme on the basis of documents submitted by the Operating Structure;

c. Examining at each meeting the results of implementation, particularly the achievement of the targets set for each priority axis and measure, as well as interim evaluations (it shall carry out this monitoring by reference to the indicators agreed). Information on the number of jobs created as a result of the implementation of individual projects should be specifically reported and monitored (this information has to be forwarded to IPA Monitoring Committee);

d. Examining the sectoral annual and final reports on implementation, including OP summary tables;

e. Being informed of the annual audit activity report or of the part of the report referring to the Operational Programme;

f. Examining any proposal to amend the financing agreement for the programme and proposals to the Operating Structure for any revision or examination of the Programme likely to make possible the attainment of the programme’s objectives, or to improve its management, including its financial management, as well as to oversee cross cutting themes and publicity measures.

The Sectoral Monitoring Committee shall confirm or make proposals to the Head of the Operating Structure, to the European Commission, the Strategic Co-ordinator and the National IPA Co-ordinator to revise the programme, where relevant, following an evaluation, including its results, as well as the output and financial indicators to be used to monitor the assistance.

The Sectoral Monitoring Committee will set up its rules of procedure in agreement with the Operating Structure and the IPA Monitoring Committee. It will meet at least twice a year and upon request by the Commission. Intermediate meetings may also be convened as required.

As a principle the Sectoral Monitoring Committee will aim to take decisions by reaching consensus.

5.2.2. Management Information System

The Head of the Operating Structure is responsible for the efficiency and correctness of management and implementation and in particular for setting up, maintaining and updating regularly a reporting and information system to gather reliable financial and statistical information on implementation, for the monitoring indicators and for evaluation and for forwarding this data in accordance with arrangements agreed between the NIPAC and the Commission.

This system will be developed into one or several computerised system(s), in a form chosen by the Operating Structure, which will enable it to:

- Monitor and manage the implementation of operations and projects, from the moment of tendering and call for proposal to the closure of the OP, in particular results whenever feasible, and outputs;
- Carry out and monitor financial transactions;
- Ensure the reporting requirements on the implementation of the OP.
The Operating Structure and all other bodies involved in the implementation of the OP shall have access to this system.

The Management Information System will be developed under the Technical Assistance component of this Operational Programme. The establishment of the Management Information System will be done under the guidance and supervision of NIPAC and Strategic Coordinator, in order to ensure consistency and complementarity across all the Operational Programmes. Until the system becomes operational, reporting and collection of data will be done manually.

5.2.3. Monitoring System and Indicators

The quantitative and qualitative progress made in implementing the programme, as well as its efficiency and effectiveness in relation to its objectives, will be measured by the use of evaluation and monitoring indicators related to the results and outputs of the individual measures.

In identifying appropriate monitoring and evaluation indicators, account has been taken of the methodologies, guidelines and lists of examples of indicators issued by the Commission, in particular the "Indicative guidelines on evaluation methods: Monitoring and evaluation indicators" (August 2006, working document No. 2 for the programming period 2007-2013).

The Head of the Operating Structure is responsible for programme monitoring. In this context, the Operating Structure will collect performance data (outputs, results and expenditure) from operations and projects. It will establish, maintain and update the reporting and information system by taking this project-level data and aggregate it to measure, priority axis and whole OP levels. Data on individuals who are the ultimate beneficiaries must be collected for each project and used for aggregation at measure and priority level. On this basis the Operating Structure will assess the progress of the OP at each level against objectives and targets, prepare reports to the Sectoral Monitoring Committee, draft the sectoral annual and final reports on implementation and launch interim evaluations if required.

In the context of monitoring and for the purpose of using indicators, the role of the Operating Structure will also be to ensure that:

a. Monitoring requirements are built into the calls for tender and proposals documents (including preparation of the major project application forms, terms of reference and tender documentation);

b. Project applications (when appraised and selected) include proposed outputs and results, as well as data on individuals, that are consistent with the OP indicators for the appropriate measure;

c. Provision of data is built into the contract with beneficiaries as an obligation, and that performance data is provided systematically and in a timely manner by beneficiaries alongside the project reimbursement claim;

An indicative breakdown by category of the programmed use of the Community contribution to this Operational Programme will be established for monitoring and information purposes while the sectoral annual and final reports on implementation will provide information on the use of expenditure in accordance with such categories.

5.2.4. Selection of operations

All operations which are not major projects, and which are implemented by final beneficiaries other than national public bodies, shall be selected through calls for proposals.

The Operating Structure will set up a Selection Committee for each call for proposals launched for the selection of operations financed under a specific measure. The Selection Committee will have an odd number of members and it will be composed of the most appropriate officials and experts with technical competence to undertake a qualitative appraisal of project applications. These members will be nominated by the institutions in which where they are employed at the invitation of the body in charge of implementation and they will have voting rights in the selection process. A member of the Operating Structure who prepared the guidelines for applicants will also participate in the Selection Committee’s work. The Committee will be chaired by a member of the Implementing Body without a voting right. The Selection Committee will appraise project applications in compliance with the selection criteria and methodologies agreed by the Sectoral Monitoring Committee. The applications will first be screened for their compliance with the eligibility and administrative criteria meeting the relevant eligibility requirements set out in the relevant measures (completeness, accuracy, etc) and thereafter will be evaluated.
according to their quality. The Selection Committee will then make recommendations to the Operating Structure, in compliance with Article 158 of the IPA Implementing Regulation.

Procurement (including the award of any major projects) will follow contract award procedures contained in of the “Practical Guide to Contract Procedures for EC External Actions” (PRAG). Tender Selection Committees will be established for the evaluation of service, works and supply tenders, while their composition and decision making procedures will be in accordance with the principles set out in the relevant rules of the PRAG. All beneficiaries (whether public or private) will also comply with the principles established under the relevant PRAG rules.

5.2.5. Sectoral annual and final reports on implementation

Annual and final sectoral implementation reports will be prepared by the Operating Structure in accordance with Article 169 of the IPA Implementing Regulation. These reports will assess the implementation progress covering the attainment of set objectives, the problems encountered in managing the programme and the measures taken, financial execution, as well as the monitoring and evaluation activities carried out. This will include specific progress reports on each major project, in accordance with the format to be agreed with the Commission.

5.2.6. Evaluation arrangements

Evaluations are a tool for assessing the relevance, efficiency and effectiveness of the financial assistance as well as the impact and sustainability of the expected results. As a minimum, an ex-ante evaluation and interim evaluations will be carried out under the responsibility of the Head of the Operating Structure in accordance with the principles laid down in the IPA Implementing Regulation and guidance provided by the Commission.

The evaluation arrangements and activities of each programme will fully respect the principle of proportionality.

Ex ante evaluation

Under the responsibility of the Operating Structure, an ex ante evaluation of the Environment Protection Operational Programme has been carried out by the European Policy Research Centre at the University of Strathclyde in Glasgow and is annexed to the programme. A summary of the results of the ex-ante evaluation and the way the evaluation was conducted is set out in section 1.4.

Interim evaluation

During the implementation of the programme, interim evaluations complementing the monitoring of the Environmental Protection Operational Programme will be carried out, in particular where this monitoring reveals a significant departure from the goals initially set or where proposals are made for the revision of the programme. At any rate, evaluations are planned to provide data on indicators agreed upon in the OP that cannot be obtained through the monitoring system. In addition, strategic evaluations or thematic evaluations can be carried out under the responsibility of the Operating Structure and/or CODEF. The results will be sent to the ad-hoc committee on evaluations, to the Sectoral Monitoring Committee and to the Commission.

Evaluation function

The Head of the Operating Structure is responsible for ensuring that adequate evaluations of the Operational Programme are carried out. The evaluations will be carried out by external experts, functionally independent from the management and control system. The evaluations will be managed by a designated IPA staff member within the Ministry of Environmental Protection, Physical Planning and Construction, who will be responsible for preparing the documents for tendering and contracting these experts under Priority Axis 3, reviewing the draft evaluation reports, acting as secretariat to the ad hoc Evaluation Committee, and liaising, as appropriate, between the selected experts and the said Committee.

Evaluation committee

The Sectoral Monitoring Committee will designate an ad-hoc committee to assist the Operating Structure in its evaluation activities. The Committee will adhere to the ‘partnership principle’ and will include members (and invitees where relevant) who are experts in evaluation. Moreover, the assistance of the Committee will be availed of at all stages of the process (including guidance, planning, implementation and communication of results) in order to ensure the overall quality of the evaluations undertaken. At the same time, all relevant stakeholders and institutions/organisations will be invited to contribute where appropriate.
The designation and establishment of this ad-hoc Committee will be made in accordance with the Sectoral Monitoring Committee’s rules and procedures adopted in accordance with Article 167.2 of the IPA Implementing Regulation.

Evaluation activities and timing
Given that this programme covers the 2007-09 period, but involves operational activity up to 31 December 2012 under the N+3 rule, it is proposed that only one interim evaluation is carried out, and that this will commence in October 2009. As no major projects will have been completed at this stage, this would be effectively a process evaluation examining the efficiency and effectiveness of programme and project implementation, but within the context of the progress made with implementation, including the performance against indicators at the project level (physical and financial objects) and at the measure level (outputs). This will also include a review of performance on the horizontal themes of the OP.

5.3. INFORMATION AND PUBLICITY

5.3.1. Introduction
Information and publicity are important aspects of pre-accession assistance and in particular to the successful design and delivery of the Operational Programmes, given the partnership basis on which they are undertaken. Communicating for the successful management and implementation of the Operational Programmes is broken down into a series of information and publicity activities.

To this end, Article 62 of the IPA Implementing Regulation sets out certain requirements regarding the information to be provided and publicity of programmes and operations financed by the Community, addressed to citizens and beneficiaries with the aim of highlighting the role of Community funding and ensuring transparency.

Accordingly, the information to be provided by the Operating Structure should include inter alia the publication of the list of final beneficiaries, the names of the operations and the amount of Community funding allocated to operations. The Commission must also ensure the publication of the relevant information on tenders and contracts in the Official Journal of the European Union and other relevant media and websites.

Moreover, Article 63 of the IPA Implementing Regulation provides further that the Commission and the relevant authorities of the beneficiary country shall agree on a coherent set of activities, to be funded from the Technical Assistance priority of the Operational Programme, in order to make available and publicise information about IPA assistance.

In accordance with the above-mentioned provisions the Ministry of Environment Protection, Physical Planning and Construction (the Directorate for Strategic and Integration Processes in Environmental Protection) shall be responsible for the information and publicity activities under the Programme. For all information and publicity activities related to the water management component, the Ministry of Environment Protection, Physical Planning and Construction will closely cooperate with and obtain its information from the Ministry of Agriculture, Forestry and Water Management. The information shall be addressed to the citizens of Croatia and to the European citizens in general, and to the (potential) beneficiaries. It shall aim to highlight the role of the Community and ensure that IPA assistance is transparent.

5.3.2. Requirements
In compliance with Article 63 of the IPA Implementing Regulation the Ministry of Environmental Protection, Physical Planning and Construction (the Directorate for Strategic and Integration Processes in Environmental Protection) in cooperation with the Ministry of Agriculture, Forestry and Water Management will formulate a coherent set of strategic activities, a Communication Action Plan (CAP), to provide strategic coherence to the set of activities to publicise information about IPA assistance. The CAP shall be consistent with the information and publicity strategy issued by NIPAC. The CAP shall cover the period 2008-2012. The Ministry of Environmental Protection, Physical Planning and Construction (the Directorate for Strategic and Integration Processes in Environmental Protection) will submit a draft of the CAP to the NIPAC and the Commission within four months of the date of signature of the Financing Agreement covering the Operational Programme. As a minimum the CAP shall include the following points:

- The aims and target groups;
• The strategy and content;
• The indicative budget;
• The administrative departments;
• The criteria used for evaluation of project proposals.

5.3.3. Activities
The Ministry of Environmental Protection, Physical Planning and Construction (the Directorate for Strategic and Integration Processes in Environmental Protection) shall ensure that the information and publicity measures are implemented in accordance with the CAP aiming at the broadest possible media coverage using all suitable forms and methods of communication at the appropriate territorial level. The Ministry of Environmental Protection, Physical Planning and Construction (the Directorate for Strategic and Integration Processes in Environmental Protection) will be also responsible for organising at least the following information and publicity measures in cooperation with the Ministry of Agriculture, Forestry and Water Management:

• A major information activity publicising the launch of an Operational Programme, even in the absence of the final version of the CAP;
• At least one major information activity a year, as set out in the CAP, presenting the achievements under the Operational Programme (including major projects where appropriate);
• The publication (electronically or otherwise) of the list of beneficiaries, the names of the operations and the amount of Community and national funding allocated to the operations

The Ministry of Environmental Protection, Physical Planning and Construction (the Directorate for Strategic and Integration Processes in Environmental Protection) and the Ministry of Agriculture, Forestry and Water Management shall provide potential beneficiaries with clear and detailed information on at least the following:

• The possibility of financing opportunities offered jointly by the Community and the beneficiary country through the OP;
• The conditions of eligibility to be met in order to qualify for financing under the Operational Programme;
• A description of the procedures for examining applications for funding and of the time periods involved;
• The criteria for selecting the operations to be financed; and
• The contacts at national, regional or local level that can provide information on the Operational Programme.

5.3.4. Indicative budget
The indicative budget for the CAP under this Operational Programme for the period 2007-2009 will be set at an appropriate level in order to provide adequate cover for the costs of the publicity and information measures. The budget allocation per year, as well as the indicative amounts necessary for the period 2010-2013 will also be presented in the CAP.

5.3.5. Management and implementation
Within the Ministry of Environmental Protection, Physical Planning and Construction, information and communications will be assigned to the Directorate for Strategic and Integration Processes in Environmental Protection. The information and publicity team will be composed of 2 IPA staff members whose tasks will involve supporting the Head of the Operating Structure in the performance of the following functions and responsibilities:

• Discussing the CAP with the NIPAC and the Commission;
• Coordinating the information and publicity activities under other IPA funded programmes;
• Communication with the media;
• Elaboration, implementation and assessment of the programme's CAP;
• Representing the programme in the relevant national and Commission information networks;
• Handling enquiries from beneficiaries;
• Monitoring and control on the fulfilment of the P&I requirements from the beneficiaries;
• Development, production and distribution of information materials; preparation and implementation of public events;
• Development and maintenance of the contents of the Programme website;
• Liaising with IT regarding technical maintenance;
• Management of out-sourced services;
• Elaboration and monitoring the annual CAP and coordination of internal events and training.

Given that some of the information and publicity measures will require out-sourcing for professional services (such as design and pre-print, web page, printing, advertising, photography and opinion pools). It will be the responsibility of the information and publicity team to manage such services and ensure that the contract is concluded in accordance with public procurement rules.

5.3.6. Monitoring, evaluation and reporting

Monitoring, evaluation and reporting are a compulsory requirement for the implementation of the publicity measures included in the CAP of the programme.

The progress made in the implementation of the CAP shall be reported during the meetings of the Sectoral Monitoring Committee. Moreover, the Head of the Operating Structure shall inform the Sectoral Monitoring Committee of the information and communication measures carried out and the means of communication used. The Head of the Operating Structure will also provide the Sectoral Monitoring Committee with examples of communication measures carried out.

The annual and final reports on implementation of the Operational Programme will include the following information:

• Examples of information and communication measures for the Operational Programme undertaken in implementation of the CAP;
• The arrangements for the information and publicity measures concerning the publication, electronically or otherwise, of the list of beneficiaries, the names of the operations and the amount of public funding allocated to the operations;
• The content of major amendments to the CAP;
• The set of indicators for evaluation of the publicity measures which have been included in the CAP to assess the efficiency and effectiveness of the implemented publicity activities;
• The yearly results of the qualitative and quantitative analysis which have been used for the elaboration of the annual CAP and any modifications thereof.

5.3.7. Partnership and networking

Bodies that can act as relays for the programme and disseminate the information concerning the general public are the following:

• Professional and trade associations and organizations;
• Economic and social partners;
• Non-governmental organisations;
• Educational institutions;
• Organisations representing business;
• Operators;
• Information centres in Europe and Commission representations, in particular the EC Delegation;
• Other main stakeholders under each priority axis.

The Operating Structure will work in close cooperation with the above-mentioned bodies for the dissemination of information regarding the programme and in particular the IPA pre-accession assistance strategy for component IV.

5.3.8. Internet
The website of the programme will be linked to the CODEF, MFIN, ECD, DG ELARG, DG EMPL and DG REGIO websites and with the websites of the other programmes. It will be created according to the following principles:

• Accessibility to as many users as possible – ensuring the site has a simple address; registering it on main search engines so it can be found easily; designing it to be viewable with low specification screens and software; ensuring it is quick to download;

• Prioritising fast access to rich information – the site should be clearly organised so users can find what they are looking for quickly and easily; the information should be available as downloadable pdf documents, where possible;

• Visual appeal – strong visual identity through logos, use of colours etc. without limiting the clarity, speed and simplicity;

• Developing as an ongoing resource;

• Interactive content, exploiting the unique strengths of websites.
ANNEXES

ANNEX I: MEMBERSHIP OF INTER-MINISTERIAL WORKING GROUP (IWG)

(Note: * indicates designated lead ministry for managing the OP)

Central Office for Development Strategy and Coordination of EU Funds (CODEF)
- Ms Nataša Mikuš, Deputy State Secretary (Chair, IWG)
- Ms Ivana Vlašić, Head of Department,
- Mr Damir Tomasović, Head of Section

Ministry of Environmental Protection, Physical Planning and Construction (MEPPPC)*
- Mr Daniel R. Schneider, Assistant Minister
- Ms Mirjana Papafava, Head of Department

Ministry of Agriculture, Forestry and Water Management (MAFWM)
- Ms Karmen Cerar, Head of Department

Ministry of Foreign Affairs and European Integration (MFAEI)
- Ms Maja Kušt

Central Bureau of Statistics
- Ms Vesna Koletić, Senior Expert Advisor

CARDS 2003: Support to National Development Planning
- Mr Conor Kearney
ANNEX II: MONITORING INDICATORS

Monitoring indicators
Result indicator for each Priority axes and output indicators for each measure are provided. Final target i.e. achievements under most of the priorities/measure are set on the basis of the projects envisaged to be carried in the programming period covered by this Operational programme. Targets will be possible to assess at the end of the programme due to the nature of project envisaged in the EPOP (large scale infrastructure projects that require certain time to be conducted).

Having in mind limited scale and likely influence of the programme it is unlikely to assess the consequences of the programme beyond the immediate effects and that is why no impact indicators (environmental impact at programme level) are provided.

The main source for data gathering will be monitoring reports (project ones but also annual and final reports on implementation).

<table>
<thead>
<tr>
<th>Priority axis 1- Developing waste management infrastructure for establishing an integrated waste management system in Croatia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
</tbody>
</table>

Measure 1.1. Establishment of new waste management centres at county / regional levels

<table>
<thead>
<tr>
<th>Measure 1.1 – Remediation of sites highly polluted with waste (hot spots)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
</tbody>
</table>

Priority axis 2 - Protecting Croatia's water resources through improved water supply and integrated wastewater management system

<table>
<thead>
<tr>
<th>Priority axis 2 - Protecting Croatia's water resources through improved water supply and integrated wastewater management system</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

Monitoring Indicators for all Priority axes and Measures are brought together into one section following recommendation from Ex-ante Evaluation report (Chapter 7)

For that reason 2007 is taken as a baseline year and majority of baseline values are zero. On the other hand the final targets present what is expected to be achieved during the given period (2007-2009), but those could be even exceeded.
<table>
<thead>
<tr>
<th>Measure</th>
<th>Definition</th>
<th>Type</th>
<th>Measurement unit</th>
<th>Baseline data (year)</th>
<th>Frequency of reviewing</th>
<th>Final target</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Population connected to new/rehabilitated sewerage network</td>
<td>Result</td>
<td>Nr</td>
<td>0 (2007)</td>
<td>3-years period*</td>
<td>105,000 PE</td>
<td>MAFWM</td>
</tr>
<tr>
<td>3</td>
<td>Population served by the new WWTP</td>
<td>Result</td>
<td>Nr</td>
<td>0 (2007)</td>
<td>3-years period*</td>
<td>105,000 PE</td>
<td>MAFWM</td>
</tr>
</tbody>
</table>

**Measure 2.1. Establishment of modern water supply systems and networks**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Type</th>
<th>Measurement unit</th>
<th>Baseline data (year)</th>
<th>Frequency of reviewing</th>
<th>Final target</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>New water supply network</td>
<td>Output</td>
<td>km</td>
<td>0 (2007)</td>
<td>annually</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>Rehabilitated / replaced water supply network</td>
<td>Output</td>
<td>km</td>
<td>0 (2007)</td>
<td>annually</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Water Supply project applications with full documentation</td>
<td>Output</td>
<td>Nr</td>
<td>0 (2006)</td>
<td>annually</td>
<td>2</td>
</tr>
</tbody>
</table>

**Measure 2.2. Construction of WWTP for domestic and industrial wastewaters and upgrading of sewerage network**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Type</th>
<th>Measurement unit</th>
<th>Baseline data (year)</th>
<th>Frequency of reviewing</th>
<th>Final target</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>New/rehabilitated WWTP compliant with EU aquis</td>
<td>Output</td>
<td>Nr</td>
<td>0 (2007)</td>
<td>annually</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Sewerage network construction / refurbishment</td>
<td>Output</td>
<td>km</td>
<td>0 (2007)</td>
<td>annually</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Waste Water project applications with full documentation</td>
<td>Output</td>
<td>Nr</td>
<td>0 (2006)</td>
<td>annually</td>
<td>4</td>
</tr>
</tbody>
</table>

**Priority axis 3 - Technical assistance**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Type</th>
<th>Measurement unit</th>
<th>Baseline data (year)</th>
<th>Frequency of reviewing</th>
<th>Final target</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Staff in the national bodies capable of independently identifying, preparing and assessing project applications</td>
<td>Result</td>
<td>Nr</td>
<td>0 (2007)</td>
<td>3-years period*</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>OP funds absorbed</td>
<td>Result</td>
<td>%</td>
<td>0 (2007)</td>
<td>3-years period.*</td>
<td>100</td>
</tr>
<tr>
<td>Measure</td>
<td>Definition</td>
<td>Type</td>
<td>Measurement unit</td>
<td>Baseline data (year)</td>
<td>Frequency of reviewing</td>
<td>Final target*</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------------------------------------------------</td>
<td>-------</td>
<td>------------------</td>
<td>----------------------</td>
<td>------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>1</td>
<td>Trainings provided for the public bodies for the implementation of PA 1 and PA 2 including trainings in preparation and assessment of project applications</td>
<td>Output</td>
<td>Nr</td>
<td>0 (2007)</td>
<td>annually</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Waste project applications assessed and submitted by Operating Structure</td>
<td>Output</td>
<td>Nr</td>
<td>0 (2006)</td>
<td>annually</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Water project applications assessed and submitted by Operating Structure</td>
<td>Output</td>
<td>Nr</td>
<td>0 (2006)</td>
<td>annually</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Monitoring Committee meetings</td>
<td>Output</td>
<td>Nr</td>
<td>0 (2007)</td>
<td>annually</td>
<td>4</td>
</tr>
</tbody>
</table>

* Envisaged date for measuring final target is set at the end of programme, i.e. end of 2012. That is due to the time coverage of the OP but also due to the nature of envisaged projects and "n+3" rule
ANNEX III:  INDICATIVE LIST OF PROJECTS AND THEIR IDENTIFICATION CARDS

<table>
<thead>
<tr>
<th>Priority axis</th>
<th>Project name</th>
<th>Measure</th>
<th>Project preparation support</th>
<th>Estimated value of projects M€</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regional Waste Management Centre Marišćina  (The County of Primorje and Gorski Kotar)</td>
<td>Measure 1.1</td>
<td></td>
<td>41.78</td>
</tr>
<tr>
<td></td>
<td>Regional Waste Management Centre for the County of Split –Dalmatia</td>
<td>Measure 1.1</td>
<td>CARDS 2002</td>
<td>55.7</td>
</tr>
<tr>
<td></td>
<td>Regional Waste Management Centre for the County of Istra</td>
<td>Measure 1.1</td>
<td>EBRD</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Remediation and closing down of the Sovjak pit, County of Primorje-Gorski Kotar</td>
<td>Measure 1.2</td>
<td>IPA</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Waste Management Centre for the County of Dubrovnik-Neretva</td>
<td>Measure 1.1</td>
<td>CARDS 2002 IPA</td>
<td>24.8</td>
</tr>
<tr>
<td></td>
<td>Regional Waste Management Centre for County of Zadar</td>
<td>Measure 1.1</td>
<td>IPA</td>
<td>35.9</td>
</tr>
<tr>
<td></td>
<td>Waste Management Centre for County of Virovitica-Podravina</td>
<td>Measure 1.1</td>
<td>IPA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Waste Management Centre for North-West Croatia</td>
<td>Measure 1.1</td>
<td>IPA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Waste Management Centre for East Slavonia</td>
<td>Measure 1.1</td>
<td>IPA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Waste Management Centre for Karlovac County</td>
<td>Measure 1.1</td>
<td>IPA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Waste Management Centre for Brodsko-Posavska County</td>
<td>Measure 1.1</td>
<td>IPA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Waste Management Centre for Sisak-Moslavina County</td>
<td>Measure 1.1</td>
<td>IPA</td>
<td></td>
</tr>
<tr>
<td>Project No: 1</td>
<td><strong>Priority Axis 1</strong> - Developing waste management infrastructure for establishing an integrated waste management system in Croatia</td>
<td>Measure No.: 1.1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project location:</strong></td>
<td>The County of Primorje and Gorski Kotar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1. Project name</strong></td>
<td>Regional Waste Management Centre Marišćina</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Investment value (estimated)</strong></td>
<td>54.026.732 EUR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Description of main project components and/or activities</strong></td>
<td>Establishment of the RWMC “Marišćina” (Stage I) – Weighing bridge and waste registration at the Centre’s entrance, and car-tyre wash – Plateaus in the operating zone – Mechanical and biological treatment plant (MBT) – Phase 1 of the landfill area, including the collection and flare-burning of landfill gas – Wastewater and leachate treatment system – Buffer zone surrounding the operating zone and Phase 1 of the landfill – The Centre’s internal infrastructure (roads, parking lots, water supply, drainage, electrical installations) Technical Assistance in public awareness rising and supervision of the works. For IPA funding construction of new RWMC (without MBT facilities) and technical assistances is being proposed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Description of main project objectives and expected results</strong></td>
<td>Main project objectives and expected results include: – Adopting modern methods of treating unsorted municipal waste allowing for treatment in available thermal processing units (RDF for cement plants) – Creating optimal transportation routes between the “Marišćina” and the system’s external facilities – Developing the infrastructure (set up the facilities for collection, transportation, receiving and treating of the all type of wastes with exception of the treatment of industrial non-hazardous waste – to be treated within the frame of industrial producers of such a waste kind) – Implementing the AED concept and reducing the quantity of waste to be landfilled – Setting up an integrated waste management system in the County of Primorje and Gorski Kotar (with no landfills on the islands)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. Month and year of start of project implementation</strong></td>
<td>2008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6. Month and year of end of project implementation</strong></td>
<td>2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>7. Project duration (months)</strong></td>
<td>up to 3 years (for each phase)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>8. Readiness of basic project documentation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Document type</td>
<td>Regional Waste Management Centre</td>
<td>Integrated waste management centre within the County: -Landfill’s closure -Transfer stations -Recycling yards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>status (tick box)</td>
<td>status description</td>
<td>completion date</td>
<td>status (tick box)</td>
<td>status description</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Pre-feasibility study</td>
<td></td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feasibility study (with cost-benefit analyses which include economic and financial analysis)</td>
<td></td>
<td>2005</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


9. Status of project design documentation and permits

<table>
<thead>
<tr>
<th>Documentation type</th>
<th>Status (tick box)</th>
<th>status description (none/in progress/completed)</th>
<th>completion date</th>
<th>Status (tick box)</th>
<th>Status description (none/in progress/completed)</th>
<th>Completion date</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual design</td>
<td>☒</td>
<td>completed</td>
<td>2004</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preliminary design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main design</td>
<td>☒</td>
<td>completed</td>
<td>2006</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location Permit</td>
<td>☒</td>
<td>completed</td>
<td>2004</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Permit</td>
<td></td>
<td>completed</td>
<td>2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Description of the land ownership status: Solved

11. Describe current project status

Final activities on the preparation of Centre's infrastructure construction.

12. Name of final beneficiary

EKOPLUS Ltd. Rijeka

13. Name of Operator

EKOPLUS Ltd. Rijeka

14. Sources of financing:

<table>
<thead>
<tr>
<th>National component (including final beneficiary)</th>
<th>IFI: Other donors: MBT plant - PPP model</th>
<th>Proposed IPA grant:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croatian Financial Institutions, Environmental protection and Energy Efficiency Fund, Local self-government units</td>
<td>MBT plant - PPP model</td>
<td>Proposed IPA grant:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFI: Proposed IPA grant</td>
<td>11.425.280 EUR</td>
</tr>
<tr>
<td>National component (including final beneficiary)</td>
<td>14.247.130 EUR</td>
</tr>
<tr>
<td>Other component (including final beneficiary)</td>
<td>15.000.000 EUR</td>
</tr>
</tbody>
</table>

15. Additional comments:

- National Environmental Strategy - 2002
- Waste Management Strategy of the Republic of Croatia - 2005
- Spatial Plan of the County of the Primorje and Gorski Kotar (CPG) – 2000
- Waste Management Strategy of the CPG – 2001
- Strategic development guidelines 2005 – 2009 for the CPG – 2005
- Waste Management in the Region of Kvarner and Istria – 1996
- Final Study of the Environmental Impact of Facilities for Storing, Treating and Disposing of Municipal and Non – hazardous Industrial Waste in CPG
### Project No: 2

<table>
<thead>
<tr>
<th><strong>Priority Axis 1</strong> - Developing waste management infrastructure for establishing an integrated waste management system in Croatia</th>
<th><strong>Measure No.: 1.1.</strong></th>
</tr>
</thead>
</table>

**Project location:** County of Split-Dalmatia

1. **Project name**
   - Regional Waste Management Centre for the County of Split-Dalmatia

2. **Investment value (estimated)**
   - 55.7 M EUR (approximately 34.0 M EUR first phase – to be calculated)

3. **Description of main project components and/or activities**
   - Construction of an integral centre in which municipal and non-hazardous industrial waste from the territory of the entire county, including islands, shall be treated and then disposed.

4. **Description of main project objectives and expected results**
   - The main objective is to establish integrated sustainable waste management system on county level (464,000 inhabitants).
     - Construction of new WMC of the County of Split-Dalmatia including MBT facility-I phase
     - Construction of 4 transfer stations (TS) on islands and 4 TS in the mainland
     - Optimizing of waste transport from TS to the RWMC
     - Pilot study for separate collection of waste for town Split

For IPA funding the construction of WMC, transfer stations and pilot study is being proposed.

5. **Month and year of start of project implementation**
   - July 2008

6. **Month and year of end of project implementation**
   - July 2011

7. **Project duration (months)**
   - 36

8. **Readiness of basic project documentation**

<table>
<thead>
<tr>
<th>Document type</th>
<th>Status (tick box)</th>
<th>status description</th>
<th>completion date</th>
<th>comment</th>
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</thead>
<tbody>
<tr>
<td>Pre-feasibility study</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Feasibility study (with cost-benefit analyses which include economic and financial analysis)</td>
<td>☒</td>
<td>completed</td>
<td>2007</td>
<td>Under revision according to the National Waste Management Implementation Plan</td>
</tr>
<tr>
<td>EIA study</td>
<td>☒</td>
<td>completed</td>
<td>2006</td>
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</tr>
<tr>
<td>Tender documents</td>
<td></td>
<td></td>
<td></td>
<td>To be tendered in 2007 and completed in 2008</td>
</tr>
<tr>
<td>Other</td>
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9. **Status of project design documentation and permits**

<table>
<thead>
<tr>
<th>Design type</th>
<th>status (tick box)</th>
<th>status description (none/in progress/completed)</th>
<th>completion date</th>
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</thead>
<tbody>
<tr>
<td>Conceptual design</td>
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<tr>
<td>Preliminary design</td>
<td>☒</td>
<td>completed</td>
<td>2007</td>
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<tr>
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<td>----</td>
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<td>------</td>
<td></td>
</tr>
<tr>
<td>Main design</td>
<td>☐</td>
<td>none</td>
<td>2008</td>
<td>To be tendered in first quarter of 2008</td>
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<tr>
<td>Final design</td>
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<td>Location Permit</td>
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<td>Building Permit</td>
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<td>2008</td>
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<tr>
<td>Other</td>
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</tbody>
</table>

10. Description of the land ownership status: in procedure

11. Describe current project status

12. Name of final beneficiary | Regionalni centar čistog okoliša Ltd. |

13. Name of Operator | Regionalni centar čistog okoliša Ltd. |

14. Sources of financing:

| National component (including final beneficiary) | IFI: Environmental protection and Energy Efficiency Fund, Local self-government units special municipal charges | Other donors: PPP model of financing of MBT | Proposed IPA grant |
| Aprox. 4.0 MEUR | EUR | Aprox. 15.0 MEUR | Aprox. 15.0 MEUR |

15. Additional Comment:
- TA support CARDS 2002
- Waste management strategy of the Republic of Croatia 2005
- National Waste Management Implementation Plan 2007
- Environmental protection programme of Split-Dalmatia County, 2000
- Waste management programme of Split-Dalmatia County, 2000
- Regional Operational Programme of Split-Dalmatia County

---

<table>
<thead>
<tr>
<th>Project No: 3</th>
<th>Priority Axis 1 - Developing waste management infrastructure for establishing an integrated waste management system in Croatia</th>
<th>Measure No.: 1.1.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project location: County of Istria</td>
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<tr>
<td>1. Project name</td>
<td>Regional Waste Management Centre for the County of Istria</td>
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<tr>
<td>2. Investment value (estimated)</td>
<td>45 M EUR</td>
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<tr>
<td>3. Description of main project components and/or activities</td>
<td>Construction of new RWMC-Kaštijun including MBT facility</td>
<td></td>
</tr>
<tr>
<td>4. Description of main project objectives and expected results</td>
<td>The main objective is to establish integrated sustainable waste management system on a county level (206,344 inhabitants) Main activities: • Construction of new RWMC-Kaštijun including MBT facility</td>
<td></td>
</tr>
</tbody>
</table>
Waste reception area with weighbridge, office and staff buildings, maintenance workshop, parking area, wheel wash facility, fence, gate etc. Area reserved for recycling yard, Area reserved for C&D waste treatment, Area reserved for transport centre, MBT plant, Internal roads within the centre and within the disposal area, Disposal units complete with bottom liner, leachate drainage layer, drains and wells for leachate collection, Leachate and gas treatment plants, Mobile and stationary equipment etc.

- Construction of four Transfer Stations
- Vehicles for long range transport – between the transfer stations and the RWMC
- Technical Assistance in public awareness arising and supervision of the works

For IPA funding construction of new RWMC (without MBT facilities), technical assistances and vehicles for long range transport and transfer stations is being proposed.

<table>
<thead>
<tr>
<th>5. Month and year of start of project implementation</th>
<th>2008</th>
<th>6. Month and year of end of project implementation</th>
<th>2011</th>
<th>7. Project duration (months)</th>
<th>up to 3 years</th>
</tr>
</thead>
</table>

8. Readiness of basic project documentation – The County of Istria has started activities supported by the EBRD on developing of project documentation

<table>
<thead>
<tr>
<th>Document type</th>
<th>Status (tick box)</th>
<th>status description</th>
<th>completion date</th>
<th>comment</th>
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</thead>
<tbody>
<tr>
<td>Pre-feasibility study</td>
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<td></td>
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<tr>
<td>Feasibility study (with cost-benefit analyses which include economic and financial analysis)</td>
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<tr>
<td>EIA study</td>
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<tr>
<td>Tender documents</td>
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<td>Under development</td>
<td>First half of 2008</td>
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<td>Other (specify)</td>
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9. Status of project design documentation and permits

<table>
<thead>
<tr>
<th>Documentation type</th>
<th>Status (tick box)</th>
<th>status description (none/in progress/completed)</th>
<th>completion date</th>
<th>comment</th>
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<tbody>
<tr>
<td>Conceptual design</td>
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<tr>
<td>Preliminary design</td>
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<tr>
<td>Final design</td>
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<tr>
<td>Location Permit</td>
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<td>Building Permit</td>
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<td></td>
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<tr>
<td>Other</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

10. Description of the land ownership status: Solved; permitted the construction of Centre for 30 years

11. Describe current project status

For RWMC - Kaštijun is necessary to do:
- complete basic design in phases in such a way that each phase forms one complete entity;
- complete a feasibility study taking the phases of the project into consideration;
- complete a cost-benefit analysis for the whole project;
- complete an Environmental Impact Study;
- complete the process to estimate the effect on the environment in accordance
with the ordinances in national laws, which includes public insight;
- apply for and receive a location permit for the entire project;
- complete the main and implementation projects according to phases;
- apply for and receive a construction permit for the realisation of the individual phases of the Project;
- complete tender documentation for construction.

<table>
<thead>
<tr>
<th>12. Name of final beneficiary</th>
<th>RWMC – Kaštijun, as a recycling and transfer station in the Region of Istria, will be managed by a company formed through the cooperation of the City of Pula and the Region of Istria with possibility to join all towns and municipalities in Region of Istria (39). The registration of this firm is currently underway.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Name of Operator</td>
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14. Sources of financing:

<table>
<thead>
<tr>
<th>National component (including final beneficiary) loans from Croatian Financial Institutions, Environmental protection and Energy Efficiency Fund, Budget of County of Istria, local self-government units</th>
<th>IPI: EBRD</th>
<th>Other donors: MBT plant - PPP model</th>
<th>Proposed IPA grant</th>
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<tbody>
<tr>
<td>6.675 MEUR</td>
<td>4.500 MEUR</td>
<td>14.700 MEUR</td>
<td>19.125 MEUR</td>
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</table>

15. Additional Comment: Technical Assistance Strategic documents (plans, programmes, etc)
- EBRD Technical Assistance for preparation of project documentation
- Waste management strategy of the Republic of Croatia - 2005
- National Waste management implementation plan – 2007
- Waste management plan of the County of Istria (drafted)
- Final report-The waste management study in the Kvarner and Istrian regions, 1996
- Physical plan of the County of Istria
- Regional solid waste management plan, March 2006
- Regional Operational Programme (ROP), June 2006
<table>
<thead>
<tr>
<th>Priority axis</th>
<th>Project name</th>
<th>Measure</th>
<th>Project preparation support</th>
<th>Total M€</th>
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<tbody>
<tr>
<td></td>
<td>Slavonski Brod</td>
<td>Measure 2.1. Measure 2.2.</td>
<td>DABLAS /DISF – Feasibility study with cost benefit analyses</td>
<td>27</td>
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<td></td>
<td>Knin - Drniš</td>
<td>Measure 2.2.</td>
<td>EC support CARDS - ROP Feasibility study with cost benefit analyses</td>
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<td>DABLAS/DISF Feasibility study with cost benefit analyses</td>
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<td>Koprivnica-Krizevci</td>
<td>Measure 2.1.</td>
<td>ISPA TA</td>
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<td>Nova Gradiska</td>
<td>Measure 2.2.</td>
<td>ISPA TA</td>
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<td>Djakovo</td>
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<td>ISPA TA</td>
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<td>Sisak</td>
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<td>ISPA TA / EBRD</td>
<td>31</td>
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<td>Vrbovec</td>
<td>Measure 2.2.</td>
<td>IPA TA</td>
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<td>Krapina</td>
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<td>IPA TA</td>
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<td>Velika Gorica</td>
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<td>Samobor</td>
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<td>IPA</td>
<td>10</td>
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<td>Dugo Selo</td>
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<td>IPA</td>
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<td>Project No: 1</td>
<td><strong>Priority axes 2 – Protecting Croatia Water resources through improved water supply and integrated waste water system</strong></td>
<td>Measure No: 2.1., 2.2.</td>
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</tbody>
</table>

**Project location: SLAVONSKI BROD**

1. **Project name**
   Water Infrastructure Improvement in town Slavonski Brod

2. **Investment value (estimated)**
   27.000.000 EUR

3. **Description of main project components and/or activities**
   Construction of central waste water treatment plant for 80.000 PE, mechanical and biological treatment technology units and solution for the sludge disposal for the municipal wastewaters. Extension of the sewerage network and construction of new mains (L=45 km, φ 400-1400 mm, 5 Pumping station, 17 Relief structures). Construction of the water supply network (L=14 km, φ 300-400 mm, 1 Water reservoir)

4. **Description of main project objectives and expected results**
   Protection of water supply zone. Protects of the river Sava water quality, as local recipients. Solution for disposition of the waste waters of Town Slavonski Brod and surrounding settlements.

5. **Month and year of start of project implementation**
   2007

6. **Month and year of end of project implementation**
   2010

7. **Project duration (years)**
   3

8. **Readiness of basic project documentation**

<table>
<thead>
<tr>
<th>Document type</th>
<th>status</th>
<th>status description</th>
<th>completion date</th>
<th>comment</th>
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<td>Pre-feasibility study</td>
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<td>Tender documents</td>
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9. **Status of project design and permits**

<table>
<thead>
<tr>
<th>Documentation type</th>
<th>Status (tick box)</th>
<th>status description (none/in progress/completed)</th>
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<tr>
<td>Project part 1 – Sewerage –network</td>
<td></td>
<td></td>
<td></td>
<td>Explanation in point 11</td>
</tr>
<tr>
<td>Conceptual design</td>
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<td></td>
</tr>
<tr>
<td>Preliminary design</td>
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<tr>
<td>Main design</td>
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<tr>
<td>Final design</td>
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<tr>
<td>Location Permit</td>
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<tr>
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<td>Other (specify):</td>
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</tbody>
</table>

| Project part 1 – Sewerage –WWTP | | | | Explanation in point 11 |
| Conceptual design | | | | |
| Preliminary design | | | | |
| Main design | | | | |
| Final design | | | | |
| Location Permit | ☐ |
| Building Permit | ☐ |
| Other (specify): | |

### Project part 2 – Water supply

| Conceptual design | ☒ | Explanation in point 11 |
| Preliminary design | ☒ |
| Main design | ☒ |
| Final design | ☒ |
| Location Permit | ☒ |
| Building Permit | ☒ |
| Other (specify): | |

10. Description of the land ownership status: property of "Vodovod i kanalizacija" Slavonski Brod

### Project part 1 Sewerage

**For the mains and network:**
Readiness of project design varies in catchment's areas. Some parts of sewerage and water supply network are already built or Building Permit is in progress, and for some parts the preparation of Preliminary design is in progress. Below is description of nowadays sewerage network status according to Conceptual design solution for the whole sewerage system. In this nomination all mains and network which are in phase of issuing Building permit or designing are included in this nomination.

**Existing status of Sewerage mains and network**: out of 100% of catchments area

**Catchment area A**
- 10% built
- 90% Building Permit finished – included in investment

**Catchment area B**
- B1, B2, B3 50% built, 50% Building Permit finished
- B4, B5, B.8.3. Conceptual design in progress

**Catchment area C** – built

**Catchment area D**
- 20% built
- 80% Conceptual design in progress

**Catchment area E**
- 30% Conceptual design in progress
- 70% Building Permit in progress

**Catchment area F**
- 10% built
- 90% Building Permit in progress

**Catchment area G**
- 30% built
- 50% Building Permit in progress
- 20% not planed for construction

**For WWTP it is needed to:**
- design Conceptual and Preliminary Design
- prepare EIA Study
- obtain Location Construction Permit
- design Detail designs and
- obtain Construction Permit

### Project part 2 Water supply (generally):
Construction of major and main pipelines, additional water reservoir and reconstruction of main nodes
- 25% has a Building Permit, 7% has a Location Permit, 50% has no project design documentation, 18% does not require any project documentation.
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>14. Sources of financing</td>
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</tr>
<tr>
<td>National component (including final beneficiary)</td>
<td>IFI (specify)</td>
<td>Other Donor (specify)</td>
<td>Proposed IPA grant</td>
</tr>
<tr>
<td>Local and State Budget, CW</td>
<td>EIB</td>
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<tr>
<td>15. Additional Comment:</td>
<td>DISF Consultants prepare Application for IPA (mid. 2007)</td>
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<td>Priority axes 2 – Protecting Croatia Water resources through improved water supply and integrated waste water system</td>
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</table>

**Project location: KNIN DRNIŠ**

1. Project name  
Water Infrastructure Improvement in Knin and Drniš

2. Investment value (estimated)  
Knin 11,700,000 EUR, Drnis 4,700,000 EUR - Total 16.400.000 EUR

3. Description of main project components and/or activities  
Improvement and rehabilitation of sewer network and water supply  
Construction of waste water treatment plant in Knin for 20.000 PE and Drniš for 5.000 PE

4. Description of main project objectives and expected results  
Leak reduction in water supply system  
Reduction of environmental impact on Krka River and downstream functions

5. Month and year of start of project implementation  
2007

6. Month and year of end of project implementation  
2009

7. Project duration (years)  
2

8. Readiness of basic project documentation

<table>
<thead>
<tr>
<th>Document type</th>
<th>status</th>
<th>status description</th>
<th>completion date</th>
<th>comment</th>
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<tbody>
<tr>
<td>Pre-feasibility study</td>
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<td>2002</td>
<td>Sogreah framework Krka River Basin study</td>
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<td>EIA study</td>
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<td>Tebodin</td>
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<tr>
<td>Tender documents</td>
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</table>

9. Status of project design documentation and permits

<table>
<thead>
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<th>status</th>
<th>status description</th>
<th>completion date</th>
<th>comment</th>
</tr>
</thead>
<tbody>
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<td>Project part 1: Knin</td>
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<tr>
<td>Conceptual design</td>
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<td>1998/2002</td>
<td>various revisions</td>
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<td>Preliminary design</td>
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<td>finished</td>
<td>2006</td>
<td>for sewers, water and WWTP</td>
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<tr>
<td>Main design</td>
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<td>during project implementation</td>
</tr>
<tr>
<td>Final design</td>
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</tr>
<tr>
<td>Location Permit</td>
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<td>just started</td>
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<tr>
<td>Building Permit</td>
<td></td>
<td>not started</td>
<td></td>
<td>By Contractor</td>
</tr>
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</table>

| Other (specify): | | | | |
| Project part 2: Drnis | | | | |
| Conceptual design | ✔ | finished | | |
| Preliminary design | ✔ | finished | 2004-2007 | for sewers and WWTP |
| Main design | ✔ | finished | Jan 2007 | |
| Final design | | | | |
| Location Permit | | approved (WWTP) in progress (sewer) | June 2007 | only some small parts for sewer |
| Building Permit | | | | By Contractor |

10. Description of the land ownership status: Drnis: ready, Knin: started

11. Describe current project status  
TA carried out in framework Cards 2006. Consultant undertakes activities and they in the progress as described above.
<table>
<thead>
<tr>
<th>12. Final beneficiary</th>
<th>Knin Municipality and communal Company, Drniš Municipality and communal company</th>
<th>13. Name of the operator</th>
<th>Knin Municipality and communal Company, Drniš Municipality and communal company</th>
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14. Sources of financing

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<tr>
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<tbody>
<tr>
<td>Local and State Budget, CW</td>
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</table>

15. Additional Comment:
- Technical Assistance
- Strategic documents (plans, programmes, etc)

TA carried out in framework Cards 2006 (Dec 2005 – March 2007)

Project No: 3

Project location: OSIJEK

1. Project name Waste Water Treatment Plant of town Osijek
2. Investment value (estimated) **20.000.000 EUR**
3. Description of main project components and/or activities
   Construction of central waste water treatment plant for up to 250.000 PE, mechanical and biological treatment technology units and solution for the sludge disposal for the municipal wastewaters.
4. Description of main project objectives and expected results
   Protection of the river Drava and river Danube water quality.
   Improvement of the sanitary and hygienic conditions and solution for disposition of the waste waters of City of Osijek and the surrounding settlements Antunovac, Cepin and South Baranja region with totally 150.000 citizens.
   Contribution to approximation of international conventions, and national and EU legislation (especially Urban Wastewater Treatment Directive 91/271/EEC)
5. Month and year of start of project implementation **2008**
6. Month and year of end of project implementation **2011**
7. Project duration (years) **4**
8. Readiness of basic project documentation

<table>
<thead>
<tr>
<th>Document type</th>
<th>status</th>
<th>status description</th>
<th>completion date</th>
<th>Comment</th>
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<td>2004.</td>
<td>Feasibility study was done by BCEOM/JacobsGIBB in period 2004-2006 under the project Danube investment Support facility (ID number Europeaid /116044/C/SV/MULTI). FS prepared in 2004. will be updated till April 2007.</td>
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<tr>
<td>EIA study</td>
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9. Status of project design documentation and permits

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### Project part 1: WWTP

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<tr>
<td>Other (specify):</td>
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</tbody>
</table>

10. Description of the land ownership status: Elaborate with detection of WWTP site land ownership status is finished and issued by Vodovod Osijek d.o.o. Osijek on the location of the WWTP is finished by the document issued by Vodovod-Osijek d.o.o. Osijek in 2005. The estimate of the land value is done in 2006.

11. Describe current project status

   For WWTP it is needed to:
   - Obtain Location Construction Permit, Location of the WWTP is known
   - Design detail designs and
   - Obtain Construction Permit

12. Final beneficiary

   Vodovod-Osijek d.o.o.

13. Name of the operator

   Vodovod-Osijek d.o.o.

14. Sources of financing

   | National component (including final beneficiary) | IFI (specify) | Other donor (specify) | Proposed IPA grant |
   | Local and State Budget, CW                     | EIB           |                        |                   |

15. Additional Comment:

   - Technical Assistance
   - Strategic documents (plans, programmes, etc)

   DISF Consultants prepare Application for IPA (mid. 2007)

---

### Project No: 4

**Priority axes 2** – Protecting Croatia Water resources through improved water supply and integrated waste water system

**Measure No: 2.2.**

**Project location: VUKOVAR**

1. Project name

   Main collectors and Waste Water Treatment Plant of town Vukovar

2. Investment value (estimated)

   **19.000.000 EUR**

3. Description of main project components and/or activities

   Construction of central waste water treatment plant for 84,000 PE, mechanical and biological treatment technology units and solution for the sludge disposal for the municipal wastewaters.
   Construction of the connecting collector to WWTP (L=12,5 km, Gravity pipeline $\phi$ 800-1500 mm, Pressure pipeline $\phi$ 450 mm, 3 Pumping stations, Siphon under river Vuka).

4. Description of main project objectives and expected results

   Protection of the river Danube water quality
   Improvement of the sanitary and hygienic conditions and solution for disposition of the waste waters of City Vukovar, Borovo naselje and the surrounding settlements.
   Contribution to the approximation of international conventions and national and EU legislation.

5. Month and year of start of project implementation

   2009

6. Month and year of end of project implementation

   2012

7. Project duration (years)

   3

8. Readiness of basic project documentation

125
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### 9. Status of project design documentation and permits

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<td>Other (specify)</td>
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### 10. Description of the land ownership status:

11. Describe the current project status

For the connecting collector it is needed to:
- Finish preliminary and main designs
- Obtain Location and Construction Permit

For WWTP it is needed to:
- prepare EIA study, Obtain Location Construction Permit
- Design detail designs and
- Obtain Construction Permit

12. Final beneficiary **Vodovod grada Vukovara d.o.o.**

13. Name of the operator **Vodovod grada Vukovara d.o.o**

14. Sources of financing

<table>
<thead>
<tr>
<th>National component (including final beneficiary)</th>
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15. Additional Comment:
- Technical Assistance
- Strategic documents (plans, programmes, etc).

**DISF Consultants prepare Application for IPA (mid. 2007)**

### Project No: 5

**Priority axes 2 – Protecting Croatia Water resources through improved water supply and integrated waste water system**

**Measure No: 2.1.**

**Project location: COUNTY OF BJELOVAR - BILOGORA**

1. Project name **Construction of the County of Bjelovar-Bilogora regional water supply system**

2. Investment value (estimated) **55,000,000 EUR**
3. Description of main project components and/or activities
Construction of the regional water supply facilities (pipelines, storage tanks, pumping stations…)

4. Description of main project objectives and expected results
Increase of water supply degree
Protection of the wellfield zone
Improvement of drinking water quality

5. Month and year of start of project implementation
2008
6. Month and year of end of project implementation
2013
7. Project duration (years)
5

8. Readiness of basic project documentation

<table>
<thead>
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Other (specify):

9. Status of project design documentation and permits

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<th>status</th>
<th>status description</th>
<th>completion date</th>
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<tbody>
<tr>
<td>Project part 1:</td>
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<td></td>
</tr>
<tr>
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<td>finished</td>
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</tr>
<tr>
<td>Preliminary design</td>
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<td>in progress</td>
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</tr>
<tr>
<td>Location Permit</td>
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<td>in progress</td>
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<td>Building Permit</td>
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<td>in progress</td>
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<td></td>
</tr>
<tr>
<td>Other (specify)</td>
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<td></td>
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<td></td>
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</tbody>
</table>

10. Description of the land ownership status:

11. Describe the current project status
It is necessary to:
- develop the preliminary design;
- obtain a location permit;
- develop the final design; and
- obtain a construction permit.

12. Final beneficiary
County of Bjelovar – Bilogora

13. Name of the operator
County of Bjelovar – Bilogora

14. Sources of financing

<table>
<thead>
<tr>
<th>National component (including final beneficiary)</th>
<th>IFI (specify)</th>
<th>Other donor (specify)</th>
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<tbody>
<tr>
<td>Local and State Budget, CW</td>
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</table>

15. Additional Comment:
- Technical Assistance
- Strategic documents (plans, programmes,
Project is nominated for ISPA TA
**Project No:** 6  **Priority axes 2** – Protecting Croatia Water resources through improved water supply and integrated waste water system  **Measure No:** 2.1.

**Project location:** COUNTY OF KOPRIVNICA - KRIŽEVCI

<table>
<thead>
<tr>
<th>1. Project name</th>
<th>Construction of the County of Koprivnica-Križevci regional water supply system</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Investment value (estimated)</td>
<td>52,000,000 EUR</td>
</tr>
<tr>
<td>3. Description of main project components and/or activities</td>
<td>Construction of the regional water supply facilities (pipelines, storage tanks, pumping stations…)</td>
</tr>
<tr>
<td>4. Description of main project objectives and expected results</td>
<td>Increase of water supply degree, Protection of the wellfield zone, Improvement of drinking water quality</td>
</tr>
<tr>
<td>5. Month and year of start of project implementation</td>
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<tr>
<td>6. Month and year of end of project implementation</td>
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<td>7. Project duration (years)</td>
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**8. Readiness of basic project documentation**

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<td>Feasibility study (with cost-benefit analyses which include economic and financial analysis)</td>
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**9. Status of project design documentation and permits**

<table>
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<th>completion date</th>
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<td>Building Permit</td>
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</table>

**10. Description of the land ownership status:**
11. Describe the current project status
It is necessary to:
• develop the preliminary design;
• obtain a location permit;
• develop the final design; and
• obtain a construction permit.

12. Final beneficiary
County of Koprivnica – Križevci

13. Name of the operator
County of Koprivnica – Križevci

14. Sources of financing

<table>
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<th>Component</th>
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15. Additional Comment:
- Technical Assistance
- Strategic documents (plans, programmes, etc)

Project is nominated for ISPA TA

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**Project No: 7**

**Priority axes 2 – Protecting Croatia Water resources through improved water supply and integrated waste water system**

**Measure No: 2.2.**

**Project location: NOVA GRADIŠKA**

1. Project name
Waste Water Disposal System and Treatment Plant of town Nova Gradiska

2. Investment value (estimated)
13.000.000 EUR

3. Description of main project components and/or activities
Construction of central waste water treatment plant for 26.000 PE, mechanical and biological treatment technology units and solution for the sludge disposal for the municipal wastewaters. Extension of the sewerage network and construction of new mains (collector K1 L=2 km, \( \phi \) 600 – 1200 mm, Relieve structures).

4. Description of main project objectives and expected results
Protection of water supply zone. Protects of the river Sumetlica water quality, as local recipients. Solution for disposition of the waste waters of Town Nova Gradiska and surrounding settlements.

5. Month and year of start of project implementation
2009

6. Month and year of end of project implementation
2012

7. Project duration (years)
3

8. Readiness of basic project documentation

<table>
<thead>
<tr>
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9. Status of project design documentation and permits

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<th>comment</th>
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</table>
10. Description of the land ownership status: property of "Slavca" Nova Gradiska

11. Describe the current project status

| For the mains and network: Mains and network are ready for construction. For WWTP it is needed to: | • design Main and Detail Designs | • prepare EIA Study | • obtain Location Permit and Construction Permit Elaborate for bio-chemical waste water load is finished |

12. Final beneficiary | “Slavca” Nova Gradiska |

13. Name of the operator | “Slavca” Nova Gradiska |

14. Sources of financing

| National component (including final beneficiary) | IFI (specify) | Other donor (specify) | Proposed IPA grant |
| Local and State Budget, CW |

15. Additional Comment:
- Technical Assistance
- Strategic documents (plans, programmes, etc)

Project is nominated for ISPA TA
### Project No: 8

#### Priority axes 2 – Protecting Croatia Water resources through improved water supply and integrated waste water system

#### Measure No: 2.2.

**Project location: DJAKOVO**

1. **Project name**: Waste Water Disposal System and Treatment Plant of town Djakovo

2. **Investment value (estimated)**: 16.500.000 EUR

3. **Description of main project components and/or activities**

   Construction of central waste water treatment plant for 20,000 PE; mechanical and biological treatment technology units and solution for the sludge disposal for the municipal wastewaters. Extension of the sewerage network and construction of new mains (industrial zone collectors L=0,5 km φ 800 mm, main collector 1 L=3 km, φ 1000 mm, sewerage network in Đakovačka Satnica L= 16 km, φ 300 mm).

4. **Description of main project objectives and expected results**

   Protection of water supply zone. Protects of the river Sava water quality, as local recipients. Solution for disposition of the waste waters of Town Đakovo and surrounding settlements.

5. **Month and year of start of project implementation**: 2009

6. **Month and year of end of project implementation**: 2010

7. **Project duration (years)**: 2

8. **Readiness of basic project documentation**

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9. **Status of project design documentation and permits**

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10. **Description of the land ownership status: property of «Komunalno poduzece» Đakovo**

11. **Describe the current project status**

   *For the mains and network:*
   - Mains and network are ready for construction. 
   *For WWTP it is needed to:*
   - design EIA Study
   - obtain Location and Construction Permit
   - design Detail Designs and

12. **Final beneficiary**: «Komunalno poduzece» Đakovo

13. **Name of the operator**: «Komunalno poduzece» Đakovo
### 14. Sources of financing

<table>
<thead>
<tr>
<th>National component (including final beneficiary)</th>
<th>IFI (specify)</th>
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### 15. Additional Comment:
- Technical Assistance
- Strategic documents (plans, programmes, etc)

- Project is nominated for ISPA TA

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### Project No: 9

**Priority axes 2 – Protecting Croatia Water resources through improved water supply and integrated waste water system**

**Measure No: 2.2.**

**Project location: SISAK**

1. **Project name**: Waste Water Disposal System and Treatment Plant of town Sisak

2. **Investment value (estimated)**: 31,000,000 EUR

3. **Description of main project components and/or activities**
   - Construction of central waste water treatment plant for 74,000 PE, mechanical and biological treatment technology units and solution for the sludge disposal for the municipal wastewaters.
   - Extension of the sewerage network and construction of new mains (many transporting collectors).

4. **Description of main project objectives and expected results**
   - Protection of water supply zone.
   - Protects the river Sava water quality, as local recipients.
   - Solution for disposition of the waste waters of Town Sisak and surrounding settlements.

5. **Month and year of start of project implementation**: 2009

6. **Month and year of end of project implementation**: 2012

7. **Project duration (years)**: 3

8. **Readiness of basic project documentation**

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</table>
11. Describe the current project status

For the mains and network:
- design Main and Detail design
- obtain Location and Construction Permit

For WWTP it is needed to:
- obtain Location and Construction Permit
- design EIA Study
- design detail designs and

12. Final beneficiary

"Sisacki vodovod" Sisak

13. Name of the operator

"Sisacki vodovod" Sisak

14. Sources of financing

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15. Additional Comment:
- Technical Assistance
- Strategic documents (plans, programmes, etc)

TA supported under EBRD

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Project No: 10

Priority axes 2 – Protecting Croatia Water resources through improved water supply and integrated waste water system

Measure No: 2.2.

Project location: VRBOVEC

1. Project name

Waste Water Disposal System and Treatment Plant of town Vrbovec

2. Investment value (estimated)

6.000.000 EUR

3. Description of main project components and/or activities

Construction of central waste water treatment plant for 20,400 PE, mechanical and biological treatment technology units and solution for the sludge disposal for the municipal wastewaters. Construction of the connecting collector to WWTP (L=3.4 km, φ 500-800 mm, Relief structures)

4. Description of main project objectives and expected results

Protection of water supply zone. Protects the river Sava water quality, as local recipients. Solution for disposition of the waste waters of Town Vrbovec.

5. Month and year of start of project implementation

2009

6. Month and year of end of project implementation

2011

7. Project duration (years)

2

8. Readiness of basic project documentation

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### 10. Description of the land ownership status: property of “Komunalno poduzece” Vrbovec

11. Describe the current project status

For the connecting collector:
Location Permit is obtained and Construction Permit is in progress
For WWTP it is needed to:
- Design EIA Study
- Reserve Location of the WWTP
- Obtain Location Construction Permit
- Design detail designs and
- Obtain Construction Permit

12. Final beneficiary “Komunalno poduzece” Vrbovec

13. Name of the operator “Komunalno poduzece” Vrbovec

14. Sources of financing

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15. Additional Comment:
- Technical Assistance
- Strategic documents (plans, programmes, etc)

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**Project No: 11**

**Priority axes 2** – Protecting Croatia Water resources through improved water supply and integrated waste water system

**Project location: KRAPINA**

1. Project name

Waste Water Disposal System and Treatment Plant of town Krapina

2. Investment value (estimated)

5.800.000 EUR

3. Description of main project components and/or activities

Construction of central waste water treatment plant for 20,000 PE, mechanical and biological treatment technology units and solution for the sludge disposal for the municipal wastewaters.
Extension of the sewerage network and construction of new mains (L=4 km, φ 800mm)

4. Description of main project objectives and expected results

Protection of water supply zone.
Protects of the river Krapina water quality, as local recipients.
Solution for disposition of the waste waters of Town Krapina and surrounding
settlements.

5. Month and year of start of project implementation | 2009 | 6. Month and year of end of project implementation | 2012 | 7. Project duration (years) | 3

8. Readiness of basic project documentation

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10. Description of the land ownership status: property of Komunalno poduzeće Krapina

11. Describe the current project status

- For the mains and network:
  - Design detail designs and
  - Location Permit and Construction Permit are obtained
- For WWTP it is needed to:
  - Obtain Location Permit
  - Design detail designs and
  - Obtain Construction Permit

12. Final beneficiary: Komunalno poduzeće Krapina

13. Name of the operator: Komunalno poduzeće Krapina

14. Sources of financing

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15. Additional Comment:
- Technical Assistance
- Strategic documents (plans, programmes, etc)
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<th>Measure No: 2.2.</th>
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<tr>
<td><strong>Project location: VELIKA GORICA</strong></td>
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<tr>
<td>1. Project name</td>
<td>Wastewater Treatment Plant of town <em>Velika Gorica</em></td>
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<td>2. Investment value (estimated)</td>
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<td>3. Description of main project components and/or activities</td>
<td>Reconstruction and upgrade of existing wastewater treatment plant in order to complete capacity of 70,000 PE (mechanical and biological treatment technology and sludge solution included).</td>
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<td>4. Description of main project objectives and expected results</td>
<td>Protection of water supply zone and lake Novo Čiće. Protection of Želin stream (recipient of I category) from untreated wastewaters’ discharge. Improvement of water quality (Sava river, Novo Čiće lake, Želin stream and Odra river). Solution for disposition of surplus wastewaters of Velika Gorica town and surrounding settlements.</td>
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<tr>
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<tr>
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<td>For the WWTP it is needed to: - Make EIA Study - Make: Preliminary, Main and Final Design - Obtain: Location and Building Permit</td>
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15. Additional Comment:
- Technical Assistance
- Strategic documents (plans, programmes, etc)

On a DABLAS priority list

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<table>
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<tr>
<th>Project No: 13</th>
<th>Priority axes 2 – Protecting Croatia Water resources through improved water supply and integrated waste water system</th>
<th>Measure No: 2.2.</th>
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</table>

**Project location: SAMOBOR**

1. Project name

Wastewater Infrastructure Improvement in town **Samobor**

2. Investment value (estimated)

**10.000.000 EUR**

3. Description of main project components and/or activities

Construction of central wastewater treatment plant for 40,000 PE with mechanical and biological treatment technology and solution for the sludge disposal for the municipal wastewaters. Construction also includes third degree water treatment. Sanation of sewage system.

4. Description of main project objectives and expected results

Protection of water supply wellfield Strmec and protection of groundwater. Protection of Rakovica stream and Sava river. Improvement of water quality (Sava river and Rakovica stream).

5. Month and year of start of project implementation

6. Month and year of end of project implementation

7. Project duration (years)

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8. Readiness of basic project documentation

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Other: Sanation of sewage system Study (2000.), Investment study (2006.)

9. Status of project design documentation and permits

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10. Description of the land ownership status: one part of the land for the plant must be bought.

11. Describe the current project status:
Documentation for the sewage system sanitation needs to be made. For the WWTP it is needed to:
- solve property of one part of the land
- design Main Design
- obtain a Building Permit

12. Final beneficiary: “KOMUNALAC” d.o.o. Samobor
13. Name of the operator: “KOMUNALAC” d.o.o. Samobor

14. Sources of financing:

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15. Additional Comment:
- Technical Assistance
- Strategic documents (plans, programmes, etc)

On a DABLAS priority list

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**Project No: 14**

**Priority axes 2 – Protecting Croatia Water resources through improved water supply and integrated waste water system**

**Measure No: 2.2.**

**Project location: DUGO SELO**

1. Project name: Wastewater Treatment Plant of town Dugo Selo

2. Investment value (estimated): **14,800,000 EUR**

3. Description of main project components and/or activities:
Construction of central wastewater treatment plant for 50,000 PE, with mechanical and biological treatment technology and solution for the sludge disposal for the municipal wastewaters. Extension of the sewerage network and construction of new mains.

4. Description of main project objectives and expected results:
Protection of Nature park Lonjsko polje. Improvement water quality and protection of Črnc stream.

5. Month and year of start of project implementation: 2009

6. Month and year of end of project implementation: 2012

7. Project duration (years): 3

8. Readiness of basic project documentation:

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<tr>
<td>Pre-feasibility study</td>
<td>[ ]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feasibility study (with cost-benefit analyses which include economic and financial analysis)</td>
<td>[ ]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tender documentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 9. Status of project design documentation and permits

<table>
<thead>
<tr>
<th>Design type</th>
<th>status</th>
<th>status description</th>
<th>completion date</th>
<th>comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual design</td>
<td>☑</td>
<td>finished</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preliminary design</td>
<td>☑</td>
<td>in progress</td>
<td>2007.</td>
<td></td>
</tr>
<tr>
<td>Main design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location Permit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Permit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 10. Description of the land ownership status: Not solved.

### 11. Describe the current project status

For the main parts of sewerage system it is needed to:
- obtain Location and Construction Permit
- design Main Design

For WWTP it is needed to:
- solve property of land
- design Main Design
- obtain Location and Construction Permit

### 12. Final beneficiary

**"DUKOM" d.o.o. DUGO SELO**

### 13. Name of the operator

**"DUKOM" d.o.o. DUGO SELO**

### 14. Sources of financing

<table>
<thead>
<tr>
<th>National component (including final beneficiary)</th>
<th>IFI (specify)</th>
<th>Other donor (specify)</th>
<th>Proposed IPA grant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 15. Additional Comment:
- Technical Assistance
- Strategic documents (plans, programmes, etc)
ANNEX IV: DETAILS ON PARTNERSHIP CONSULTATION

MINUTES OF MEETING HELD ON 21 MARCH 2007
CONSULTATIONS WITH PARTNERS
PRESENTATION OF OPERATIONAL PROGRAMME FOR THE EU PRE-ACCESSION FUND IPA

Based on the activities initiated within the previous EU pre-accession programmes, CARDS, DABLAS and ISPA, and the preparation of the Operational Programme for the IPA pre-accession fund, the Partners in the implementation of these programmes have been recognized, i.e. potential fund beneficiaries: Croatian County Association, Union of Town Association and Municipality Association of the Republic of Croatia; economic associations: Croatian Chamber of Commerce, Croatian Water and Wastewater Group, civil societies (non-governmental institutions) Zelena akcija, Sunce, Zeleni Osijek, and the implementation body of the IPA projects for the water sector within the Operational Programme for the Environment of the Republic of Croatia.

The Ministry of Agriculture, Forestry and Water Management organized a presentation of the Operational Programme on 21 March 2007 at 10 a.m. at the head offices of Croatian Water, Ulica grada Vukovara 220, Zagreb.

Present at the Meeting were:
Representative of Zelena akcija, Irma Popović
Representatives of the MAFWM
Representative of the Sava Cards
Representative of the Croatian Chamber of Commerce
Representative of Croatian County Associations
Signed Participant List is attached to these Minutes of Meeting

Absent at the meeting were the representatives of the Croatian Water and Wastewater Group, who apologized for the absence of their representatives in writing, and requested that the presentation of the Operational Programme for Environment related to water be separately held for all members of the Croatian Water and Wastewater Group.

Following the introductory words by Ms. Karmen Cerar on behalf of the MAFWM, who introduced the topic of the Meeting, i.e. the presentation of the Operational Programme for Environment within the EU pre-accession fund IPA, in particular its segment related to the water sector, and announced that the presentation would be organized in two parts.

The first part of the presentation was held by Mr. Damir Tomasović, a representative of the CODEF, Central Office for Development Strategy and Coordination of the EU Funds, and also member of the MRS, Inter-ministerial Working Group, which prepared the Operational Programme.

In this part of the presentation, the participants were acquainted with the EU pre-accession assistance funds, and the future support programmes intended for the EU member states, i.e. structural and cohesion funds. This was followed by the explanation of the structure of the IPA programme, consisting of five components, and it was explained that this Operational Programme was carried out within the IPA Component III. Also presented was the scheme of the IPA Programming Framework, which is conducted at several levels, starting from the Enlargement package, which is comprised of the annual EC Report on the progress of an individual candidate country in the EU pre-accession process. The second level is the Multi-annual Indicative Programming Document, MIPD, also prepared by the EC, but in collaboration with the beneficiary country. It identifies the priority investment fields for each component of the IPA programme as well as the indicative financial allocations for the main intervention areas. The implementation documents for the IPA programme are the so called Operational Programmes, or OP’s. These documents identify specific activities for which the IPA funds can be obtained. The OP’s are developed by beneficiary countries, i.e. relevant sectoral body, in collaboration with other relevant bodies and partners. An OP is subject to adoption by the EC, which must approve it after it has established its harmonisation with the MIPD, MIFF, relevant national strategies and relevant EU aquis. The IPA funds are allocated to the beneficiary country on the basis of the OP, thus the OP’s are legally binding and attached to the Financial Agreement. The preparation sequence of the stated documents was also elaborated.

The second part of the presentation was held by Ms. Karmen Cerar on behalf of the MAFWM as a member of the IWG, Inter-ministerial Working Group, who presented the Operational Programme for Environment, and emphasized that two
ministries participated in the preparation of this document, the Ministry of Environmental Protection, Physical Planning and Construction (MEPPPC) and the Ministry of Agriculture, Forestry and Water Management (MAFWM). The MEPPPC prepared the part of the Programme for the solid waste sector, while the MAFWM developed the part of the Programme for the water sector. With coordination and consultations with the SDURFOM and other members of the Inter-ministerial Working Group, they prepared the First Draft of the Document, which was further elaborated on the basis of the review and comments of the EC representative, and has just been prepared as the Second Draft for repeated reading by the EC. This Second Draft of the Operational Programme was being presented.

This was followed by the elaboration of the legal basis for the preparation of the document, with considerations of the national policy and socio-economic context as well as the determination of the Community's strategic framework. The assessment analysis of mid-term needs, goals and strategic priorities was elaborated, and also the priority axes and measures for their implementation within this programme. Additionally, the criteria for project selections were explained, based on which the indicative list of projects with investment estimates was prepared. Also presented was the form of identification card for each individual project. The Financial Plan for fund withdrawal per year was presented to the participants as well.

Following the presentations, the participants expressed their satisfaction with the received information, and posed the following questions:
1. The representative of Zelena akcija asked: "Why watercourse protection and restoration projects have not been included in this programme?"
   It was answered that this type of projects can be financed through other EU pre-accession funds, e.g. CARDS, etc.

2. The representative of the Croatian Chamber of Commerce remarked on the impossibility of preparation for this Meeting due to the fact that prior to it he was not given the insight into the document, and asked that it be subsequently submitted.

It was answered that this presentation covered only the part of the IPA Operational Programme for environmental protection related to the water sector, and that the MAFWM is ready to submit the document for insight to all identified implementation partners. However, since the Operational Programme is prepared for the whole environmental protection, in cooperation with the MEPPPC, for which the MEPPPC prepared the segment related to the waste sector, a prior approval must be obtained from the MEPPPC and the competent person for management and implementation of the III. Component of the IPA Regional Development – Environmental Protection in order to give insight into this document. The MAFWM shall undertake activities to enable insight into the presented document to the implementation partners of the IPA Operational Programme for environmental protection.

The Meeting ended on 21 March 2007 at 12 a.m.
MINUTES OF THE MEETING HELD ON 31 MAY 2007
CONSULTATIONS WITH PARTNER – THE CROATIAN WATER AND WASTEWATER ASSOCIATION
PRESENTATION OF THE EU IPA OPERATIONAL PROGRAMME

As part of the activities on the preparation of a programme for the EU Instrument for Pre-Accession Assistance (IPA), the Ministry of Agriculture, Forestry and Water Management (MAFWM), the Directorate for Water Policy and International Projects organized on 21 March 2007 a presentation of the IPA Environmental Operational Programme for its identified partners in the implementation of EU pre-accession assistance programmes. The identified partners in the programme’s implementation are potential users of funds, i.e. the Croatian County Association, the Alliance of the Association of Towns and Association of Municipalities of the Republic of Croatia, economic associations: the Croatian Chamber of Economy, the Croatian Water and Wastewater Association, non-governmental organizations: the Green Action (Zelena akcija), Sunce, Zeleni Osijek (the Green Osijek ecologic society), and Hrvatske vode, implementing body of IPA projects in the water sector within the Environmental Operational Programme.

The presentation of the IPA Operational Programme held on 21 March 2007 on the premises of Hrvatske vode, Zagreb was not attended by the representatives of the Croatian Water and Wastewater Association, who had asked that the presentation of the Environmental Operational Programme covering the water sector be held separately for all of their members.

It is for that reason that the presentation of the IPA Environmental Operational Programme was held on 31 May 2007, beginning at 11 a.m., on the premises of Hrvatske vode, Ulica grada Vukovara 220, Zagreb. It was attended by around 40 representatives of utility companies from all of Croatia. The signed list of participants is an integral part of these Minutes.

Mr. Ljubo Novoselić, president of the Croatian Water and Wastewater Association, gave keynote address on behalf of the Association. The participants were then greeted by Ms. Ružica Drmić, assistant minister, and Mr. Siniša Širac, deputy general manager of Hrvatske vode.

Following the welcoming address of Ms. Karmen Cerar on behalf of the MAFMW, she announced the topic of the meeting as a presentation of the IPA Environmental Operational Programme in the section dealing with the water sector, stressing that the MAFWM had on 10 May 2007 delivered the second draft of that document to the participants at today’s meeting.

The first part of the presentation was given by Ms. Karmen Cerar, MAFWM, as a member of the Interministerial Working Group (IWG), i.e. of the IWG which had prepared the draft Operational Programme.

In this part of the presentation the participants were acquainted with the existing EU pre-accession assistance programmes, and with future assistance programmes designed for EU Member States, i.e. Structural Fund and Cohesion Funds. Then the structure of the IPA programme was explained (consisting of 5 components), and it was stressed that this Operational Programme was implemented through IPA Component III. A scheme of the IPA programming framework, which is implemented at several levels, was presented. The documents in preparation were mentioned, as well as the order of their preparation. Emphasis was then put on the IPA implementation document, “Operational Programme” (OP). The participants were informed that this document identifies concrete activities for which EU funds can be provided. It was said that the document is prepared by the beneficiary country, i.e. the relevant line body in cooperation with other relevant bodies and partners. The prepared draft OP is submitted to the European Commission (EC) for adoption, and the EC has to approve it once it is convinced of its harmonization with other basic documents, i.e. Multi-annual Indicative Planning Document (MIPD), Multi-annual Financing Framework (MIFF), the relevant national strategies, and the relevant EU acquis communautaire. The participants were also informed that IPA funds are granted to the beneficiary country on the basis of the OP, which makes OPs legally binding and they are annexed to the Financing Agreement.

Ms. Cerar then presented the Environmental Operational Programme, i.e. its part dealing with the water sector, stressing that two ministries were involved in its preparation, the Ministry of Environmental Protection, Physical Planning and Construction (MEPPPC) and the Ministry of Agriculture, Forestry and Water Management (MAFWM). The MEPPPC had prepared the part of the programme dealing with the waste sector, and the MAFWM prepared the part dealing with the water sector. The First Draft of the OP was prepared in coordination and agreement with the Central Office for Development and Coordination of EU funds (CODEF) and other members of the Interministerial Working
Group. This first draft was modified following the review and comments of the representatives of the EC, and was submitted again to the EC for review as the Second Draft.

The legal framework of the document’s preparation was presented, which included national policy and socio-economic circumstances, and the strategic framework of the community was identified. Analysis of the assessment of middle-term needs, goals and strategic priorities was explained, and priority axes and measures for their implementation through this programme were presented. Explanation was given on the project selection criteria, on the basis of which an indicative list of project with estimated investment was made, and a form of identity card of each project was presented.

The participants were also presented with financial plans for withdrawal of funds per years. It was stressed that yearly allocation of IPA funds was as follows: the total IPA allocation for environmental protection amounts to €53.5 million (€17.0 million in 2007, €18.0 million in 2008, and €18.5 million in 2009), out of which the total amount allocated to the water sector is €26.45 million (€8.4 million in 2007, €8.9 million in 2008, and €9.15 million in 2009). The planned average co-financing rate is 75% from the IPA; however, it was stressed that the co-financing rate for individual project will be known once the applications for nominated projects are prepared, i.e. on the basis of the conducted cost-benefit analysis and based identified financial gap.

Following the presentation of the OP, Mr. Robert Kartelo, the representative of Hrvatske vode, took over. The MAFWM and Hrvatske vode are undergoing accreditation procedure of nomination for the IPA implementation body of Component III, Environmental Protection, Water Management.

Mr. Kartelo referred to the project selection criteria on the basis of which the indicative project list with estimated investment was made. These criteria are as follows:
A) Administrative criteria – i.e. technical preconditions that have to be met in order for a project proposal to be considered valid:
   - Project application completed and all supporting documents attached (Feasibility study, Cost-benefit analysis, Environmental impact assessment in accordance with EU requirements and necessary environmental permits, design studies, etc.);
   - Ensured co-financing;
   - Project application submitted prior to the established deadline;
B) Mandatory criteria – i.e. the preconditions to be met by project proposal:
   - Project proportion: projects / groups of projects / project stages should have a minimum value estimated at EUR 10 million;
   - A project has to be financially viable, i.e. future operation and maintenance costs have to be covered;
   - Viability: a project has to meet EU standards, comply with EU sectoral policies, and with the goals and principles of EU environmental policy and EU environmental regulations, with special attention given to the directives requiring large investments in order to provide support to harmonization with the *acquis*;
   - Harmonization with the priorities identified in strategic EU documents and national strategic documents;
   - Explanation that a project would not make progress without the help of the EU.
C) Qualitative criteria – i.e. general conditions/modes on the basis of which the projects meeting the mandatory criteria will be assessed:
   - “Maturity” of projects, including environmental and other consent/permits (location permit, building permit, etc.)
   - Continuity of help from the Community, international financing institutions (IFIs) and other help, and previously identified investment priorities: investments and technical assistance are a continuation of the previous assistance program (CARDS, DABLAS, PHARE, ISPA, IFI, etc.);
   - Projects from previously prepared and agreed lists of national priorities;
   - Projects which will have the strongest impact and immediate benefit upon completion (projects covering the largest number of people, an agglomeration or an area);
   - Possible transboundary / regional impact(s);
   - The level in which it contributes to achieving economic and social cohesion of Croatia with the EU (projects with maximum potential economic and social advantages);
   - Relationship between environmental and economic efficiency of projects, i.e. between the people under the impact of the project and project costs;
   - Institutional and legal framework for project management / implementation (mostly in relation to the level of responsibility taken over from the final beneficiary (one or more)).
Then Mr. Kartelo presented the activities necessary in program implementation with implementation deadlines in the form of a Gantt chart. This includes activities from the preparation and final approval of the Operational Programme by the EC, accreditation of participants in IPA implementation, preparation, modification, and final acceptance of individual project applications by the EC, tendering procedure, and implementation on the field. With the help of the presented Gantt chart it was stressed that implementation deadlines for each of the above activity were very short, and that the coming tasks had to be addressed very seriously and promptly, particularly having in mind the fact that the deadline for the preparation of applications was June 2007.

Activities which had to be carried out until the preparation of application for each of the projects were roughly presented:

1. Nominate projects whose investment value exceeds EUR 10 million;
2. Define the sources of funds other than IPA, regardless of the % of the grant;
3. Make a cost-benefit analysis and calculate the financial gap;
4. Precisely define investment value, i.e. scope of the project;
5. Prepare an Environmental Impact Assessment, i.e. at least its Summary in the form required by the EC;
6. Have property relations settled, i.e. possess a strictly defined program for resolving property relations, with December 2007 as the deadline;
7. Check the affordability of the prices of services;
8. Survey the population on the acceptable increase in price;
9. Prepare the Application with all the required annexes, documents and calculations in English;
10. Define the project realization dynamics, having in mind the n+3 rule and the annual IPA allocation, and the number of nominated projects.

Once the presentations were completed, the participants were informed that the EC had sent its comments on the second draft on 11 May 2007, and that the IPA Operational Programme was submitted to an independent consultant – the European Policies Research Centre, University of Strathclyde, which conducted the so called ex-ante appraisal of the document in April 2007. The comments of the EC and the Consultant on the second draft of the Operational Programme will be incorporated into the third draft, whose planned date of completion is 8 June 2007.

Since the second draft of the IPA OP had already been submitted for review and comments to all of the identified partners in implementation, including the Croatian Water and Wastewater Association, those present were invited to ask questions and give their comments, which would be taken into consideration when preparing the final, third draft of the OP.

The participants were satisfied with provided information, and their questions and comments follow below:

The director of “Vodovod i kanalizacija” Rijeka water and sewerage company, Mr. Željko Mažar, had the following questions:

1. Why does this programme apply the following project selection criteria: water losses from a water supply network over 40%, level of completion of sewerage systems less than 75%? The majority of towns and municipalities have similar problems, so it is not possible to identify priorities on the basis of such criterion.

   **Answer:** The preparation of the EPOP itself, and its goals and implementation measures were the result of the draft Water Management Strategy, which defines the existing status of water management, provides comprehensive approach to water system improvement, defines the strategic goals, and establishes and harmonizes water management policies with international obligations. That is why the presented data represent only the basic approach to upgrading and improvement of water supply and sewerage networks and wastewater treatment plants. The project selection criteria are listed in Chapter 3.1.2, which clearly states technical preconditions which have to be met in order for a project proposal to be considered valid, as well as the criteria on the basis of which the projects which meet the preconditions will be assessed (part of Mr. Kartelo’s presentation).

2. How come it is only the projects in the Danube and Sava river basins that are proposed for this programme, and there are no projects in the Adriatic basin?

   **Answer:** The problems with water quality standards are the greatest in the Black Sea / Danube River basin. Having also in mind the fact that water management priorities in the Adriatic basin are already included in the Coastal Cities Pollution Control Project financed by the World Bank, whose aim it is to improve the quality of recipient water and provide better municipal services in the settlements in the Adriatic basin, the majority of the proposed projects were prepared with the aim of improving wastewater sewerage and treatment in the Black Sea / Danube River basin.
indicative list of projects in this IPA OP includes one project on the mainland area of the Adriatic basin – the Knin and Drniš Project, which is not included in the World Bank-financed program.

3. Why wasn’t the town of Rijeka included in the list of identified projects?
Answer: The project of the town of Rijeka was not included in the list of identified projects because EU assistance programs through IPA funds support regional development, i.e. support the development of infrastructure, which will provide positive atmosphere for the development of economy on those areas where it is necessary. Likewise, the EC co-finances the projects which could not have been financed on their own. Due to limited funds, Croatia had to define certain priorities established in the Operational Programme, which resulted in the indicative project list presented in the OP.

Mr. Mažar accepted the given answers and said he had no further questions or comments. On behalf of the Croatian Water and Wastewater Association Mr. Novoselić thanked for the presented document and said that the Association, having previously studied the document, had no further comments or remarks. The meeting was concluded on 31 May 2007 at 1:30 p.m.
ANNEX V: DIAGRAM OF THE EPOP INSTITUTIONAL STRUCTURE