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Reducing Water Pollution in the Danube Basin Project Preparation

Study Supported Under a Project Development Facility (PDF) - Grant B of the Global Environmental Facility (GEF)

Food and Agriculture Organization
of the United Nations

European Bank
for Reconstruction and Development

GEF/SLOVENIA

REDUCING WATER POLLUTION IN THE DANUBE BASIN

PROJECT PREPARATION

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Currency Equivalents

(2002)

USD 1 = SIT 240
USD 1 = EUR 1.07

List of Acronyms

ALARA	As Low As Reasonably Achievable
BAS	Business Advisory Service
BAP	Best Agricultural Practice
BAT	Best Available Techniques
BEP	Baltic Technical Assistance Special Fund
BTASF	Best Environmental Practice
BOD	Biological Oxygen Demand
CAS	Country Assistance Strategy
CBC	Cross-Border Cooperation
CC	Climate Change
CEE	Central and Eastern Europe
CEI	Central European Initiative
CEO	Chief Executive Officer
CF	Credit Facility
COC	Chamber of Commerce and Industry of Slovenia
COD	Chemical Oxygen Demand
GOS	Government of Slovenia
CS	Country Strategy
DFID	Department for International Development
DEF	Danube Environmental Forum
DPRP	Danube Pollution Reduction programmeme
DRP	Danube Regional Project
DRB	Danube River Basin
EAoRS	Environmental Agency of the Republic of Slovenia
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
EPA	Environmental Protection Act
EU	European union
FA	Focal Area
FAO	Food and Agricultural organization of the United Nations
FI	Financial Intermediary
FR	Federal Republic
FYR	Former Yugoslav Republic
GEF	Global Environment Facility
GOS	Government of Slovenia
ha	Hectare
HSE	Health, Safety and Environment

ICA	Incremental Cost Analysis
ICPBS	International Commission for the Protection of the Black Sea
ICPDR	International Commission for the Protection of the Danube River
IF	Investment Fund
IFC	International Finance Corporation
IFI	International Financing Institution
IJS	Jozef Stefan Institute
IPPC	Integrated Pollution Prevention and Control
ISPA	Instrument for Structural Policies for Pre-Accession
IW	International Waters
JAP	Joint Action Plan
LOL	Life of Loan
LSIF	Large-scale Infrastructure Facility
MAFF	Ministry of Agriculture, Food, and Forestry
M&E	Monitoring and Evaluation
Mm^3	Million cubic meters
MOEPP	Ministry of Environment and Physical Planning
MSP	Medium-Sized Project
NEPP	National Environmental Protection programmeme
NGO	Non-Governmental organization
OP	Operational programme
PDO	Project Development Objective
PDF-B	Project Preparation and Development Facility Block B
PHARE	Pre-accession Assistance for Central and Eastern European Countries
PIR	Project Implementation Review
PN	PHARE National
REC	Regional Environmental Centre
SAP	Strategic Action Plan
SAPARD	Structural Pre-accession Assistance for Central and Eastern European Countries
SI	Slovenia
SIA	Senior Industrial Advisor
SME	Small and Medium-Sized Enterprise
STAP	Scientific and Technical Advisory Panel
TA	Technical Assistance
TAM	TurnAround Management
TEST	Transfer of Environmentally Sound Technology
TMG	TurnAround Management Group
TOR	Terms of Reference
UN	United Nations
UNDP	United Nations Development programme
UNECE	United Nations Economic Commission for Europe
UNIDO	United Nations Industrial Development organization
WB	World Bank
WFD	Water Framework Directive
WWTP	Waste Water Treatment Plant

ACKNOWLEDGEMENTS

This report was commissioned by the EBRD under the FAO/EBRD cooperation. The assignment was financed by a Project Development Facility (PDF) – B grant of the Global Environment Facility (GEF) and by FAO. Its main objective was to formulate a project aimed at providing financial support to Slovene entities located in the Danube basin and willing to invest in water pollution reduction.

The project has now materialised in the form of a credit facility, the EBRD/GEF Environmental Credit Facility, consisting of loans in the amount of up to USD 45 million and a grant of USD 9.9 million from GEF. The Facility was approved by the GEF Council on 15 October 2002 and by EBRD's Board of Directors on 4 March 2003. The loans provided under the Facility will be channelled through local banks to private and public sector entities investing in projects which reduce water pollution in the Danube river basin. The GEF grant will be used to provide financial incentives to the sub-borrowers and to partly cover the administration fees of participating banks. In addition, the grant will finance technical assistance and training for industrial, municipal and agricultural entities wishing to improve their environmental performance.

At EBRD's end, FAO's involvement was supervised by Mark Hughes, Principal Environmental Specialist, and Alke Schmidt, Principal Environmental Adviser, in EBRD's Environment Department. EBRD's Financial Institutions team took a prominent role in the formulation of the project, in particular Béatrice Maser, EBRD's Operation Leader for the Credit Facility, and Natalie Dologh, Principal Banker. The team was also supported by Chris Walker, Managing Director of EBRD's Turnaround Management Group (TMG). TMG's Business Advisory Services (BAS) Programme in Slovenia conducted the demand assessment for the facility. Miha Švent, BAS Ljubljana, was in charge of this input. Nadja Cvek, Associate Banker at EBRD's Ljubljana Resident Office, actively supported the London teams involved in the project.

FAO's team was led by Random Dubois, Senior Environmentalist. It was composed of Mari Linnapuomi, Environmentalist, Steffen Muller, Senior Water Quality Specialist, Carlo Bravi and Emmanuel Hidier, Economists, Vlaho Kojaković, Financial Analyst, Branko Kontić, Water Quality Specialist, Jožef Stefan Institute, and Milena Marega, Public Involvement Specialist, Regional Environmental Centre (REC). Edwin Ongley conducted the STAP review prior to submission to the GEF Council.

The FAO team would like to thank its counterparts at the Slovene Ministry of Environment and Spatial Planning for their continuous support, in particular Radovan Tavzes, State Secretary for Environment, Marko Slokar, State Secretary, Head of the European Affairs and International Relations Office, Mitja Bricelj, Advisor to the Government and Emil Ferjančić, Head of International Relations Department. The support of the Ekofund (Ekološko razvojni sklad) was also most precious to the project design, which gained a lot from the advice of Ljubo Žužek, Director, and Igor Čehovin, Senior Advisor. FAO's gratitude also goes to Joachim Bendow, Executive Secretary of the International Commission for the Protection of the Danube River (ICPDR) and his colleagues for their help, as well as Ivan Zavadsky, Project Manager, GEF Danube Regional Project, United Nations Development Programme (UNDP).

Finally, FAO would like to express its appreciation for the excellent cooperation of the GEF Secretariat throughout the formulation process, which owes a lot to the availability and guidance of Alfred Duda, Senior Advisor, International Waters.

EXECUTIVE SUMMARY

(i) Within the framework of the International Commission for the Protection of the Danube River (ICPDR) and the GEF Strategic Partnership on the Danube/Black Sea Basin, the European Bank for Reconstruction and Development (EBRD), in co-operation with the Global Environment Facility (GEF), is proposing the creation of a new Credit Facility in Slovenia. The primary objective of the Facility will be the reduction of nutrient load in the Danube river basin but it will also finance reductions in other water pollutants, primarily toxic substances. The main focus will be on industries, small and mid-sized municipalities, and large livestock farms to reduce their impact on surface and groundwater. The Facility will build on the work of the Slovenian government to meet the highest European environmental standards, and on the basin-wide efforts of ICPDR and other GEF projects. It will contribute to the implementation of these policies by bringing in new investment financing, channelled by local commercial banks to the private and municipal sectors, and softened with GEF grant funding. The implementation of the Credit Facility will be facilitated by a Technical Assistance component. Within the GEF International Waters Focal Area, the innovative element of the project is a design that is based on a partnership between financial intermediaries and private enterprises to disburse financial resources aiming at reducing water pollution. The project will focus on Slovenia but aims at creating a replicable model that could subsequently be implemented in other Danube basin countries. A US$ 9 million GEF grant will be blended with a US$ 45 million EBRD loan to support the Credit Facility which will be on-lent to commercial banks that will in turn channel loans in response to client demand. An additional US$ 0.907 million of GEF funding, supported by US$ 0.842 million of co-financing, will be used to support technical assistance activities.

1. ***Cost and Financing (US$ Million):***

GEF:	*Credit Facility*	*9,000,000*
	Technical Assistance	*907,650*
	PDF Block B	*087,284*
	Subtotal	***9,994,934***
Co-financing:	*EBRD loan*	*45,000,000*
	Private companies	*420,000*
	Multi-donor BAS programme	*422,000*
	Subtotal	***45,842,000***
Total Project Cost:		***55,836,934***

2. ***Operational Focal Point Endorsement:***

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1. PROJECT DEVELOPMENT OBJECTIVES AND KEY INDICATORS

Project Development Objective (see also Annex 1)

1.1 The Project Development Objective (PDO) is to support the reduction of nutrients and toxic substances, discharged by industrial, municipal and agricultural polluters in the Slovenian portion of the Danube River Basin (DRB). A key secondary objective is the development and demonstration of an innovative and sustainable concept of financial intermediary/private sector partnership in water pollution reduction, with a view to facilitating its subsequent replication elsewhere in the Basin.

Global Objective and Key Performance Indicators (see also Annex 1)

1.2 The Global Objective is the reduction of trans-boundary water pollution in the Danube River Basin.

1.3 The performance indicators used to monitor the achievement of the PDO are: (i) the estimate of the total aggregate reduction of emissions of nutrients from participating companies and other loan recipients; and (ii) the number of companies and municipalities which come into compliance with relevant national/EU legislation on water pollution in the Slovenian portion of the DRB as a result of the assistance.

2. STRATEGIC CONTENT

Regional Sector Issues and Institutional Framework

Status of the Water Quality in the Danube Basin

2.1 The Danube River is Europe's second longest river (2,780 km) and drains an area of 817,000 km^2. Its drainage basin extends over some or all of the areas of 13 countries (Map 1). These are: Germany and Austria (upper basin countries); Czech Republic, Slovakia, Hungary, Slovenia, Croatia, FR Yugoslavia, and Bosnia and Herzegovina (middle basin); and Romania, Bulgaria, Moldova and the Ukraine (lower basin). In addition to supporting a number of important wetlands and floodplains throughout the basin, the Danube flows into the Black Sea through a delta which is the second largest natural wetland in Europe.

2.2 The total estimated population living within the Danube basin boundaries is 83 million. The intense and often poorly planned growth in economic development activities in proximity to the river, together with its large and dense drainage system has contributed to a general decline in water quality. This, in turn, has affected both the system's ecology and the general quality of life including posing an increased health risk to riparian populations in the DRB countries. The most important problems affecting ecosystem health and the water users in the basin are: high loads of nutrients and other oxygen depleting substances, changes in river flow patterns and sediment transport regimes, contamination with hazardous substances, and competition for available water.

2.3 In a recently completed analysis of the situation (DPRP Transboundary Analysis), the immediate causes for these problems presented by source are the following: (i) in the municipal sector, absence of or insufficient Waste Water Treatment Plants (WWTPs), improper landfills, and poor or lack of adequate monitoring and enforcement; (ii) in the industrial sector, old technologies and infrastructure, improper design, operation and management of plants, absence of individual WWTPs and inadequate waste management, lack of emergency and planning measures, weak pollution control and weak enforcement of the polluter pays principle, as well as badly managed tourism and inadequate oil collection infrastructure in transport; and (iii) in the agricultural sector, lack of good agricultural practices and deforestation.

Institutional Framework

2.4 International efforts to co-operate in addressing the major trans-boundary environmental issues in the Danube basin are based on the "Convention on Co-operation for the Protection and Sustainable Use of the Danube River" (Danube River Protection Convention). Slovenia signed the Convention in 1994, and it entered into force in October 1998. The Convention is implemented under the guidance of the International Commission for the Protection of the Danube River (ICPDR), headquartered in Vienna. The key policy documents agreed under the auspices of the ICPDR, in particular the Strategic Action Plan (SAP; 1995 and the 1999 revision) and the Joint Action programme (JAP; for the period 2001- 2005), serve as an overall framework for member country policies in this field. ICPDR has also supported a significant

amount of work to identify pollution "hot spots" in each member country as priorities to be addressed to reduce water pollution in the basin.

2.5 The SAP was developed to provide a policy and strategic tool for the DRB countries to protect the river basin and guide their actions in the implementation of the Convention. On the basis of a participatory problem analysis, the SAP established a scheme of development objectives. The SAP's overall goals of sustainable development in the DRB, the protection and sustainable use of waters of the DRB, and the reduction of nutrient and other pollution loads to the Black Sea are to be achieved through three main sector objectives: (i) in the municipal sector, priority is given to the improvement of wastewater and solid waste management; (ii) in the industry and mining sector, the focus is on introduction of Best Available Techniques (BAT), Best Environmental Practices (BEP), and abatement of water pollution; and (iii) in the land use – agriculture sector, implementation of good agricultural practices and mechanisms for sustainable land management are prioritised. The proposed project will support these objectives by enhancing industrial awareness of the problems, by introducing the opportunity of process optimisation and wastewater minimisation and by the improved availability of funding for the introduction of clean technologies as well as for the improvement of wastewater sewerage, treatment and pre-treatment facilities in municipalities, industries and livestock farms.

2.6 The JAP was developed to support: (i) the improvement of the DRB water quality and chemical status; (ii) the prevention of accidental pollution events; and (iii) the minimisation of flood impacts. JAP outlines measures for enhancing municipal wastewater collection and treatment, and identifies priority municipal WWTPs. Concerning industrial discharges, besides listing the most urgent WWTP investments, JAP establishes the dissemination of recommendations on BATs as a priority. This objective is supported by ICPDR recommendations on BATs which have up until now, been agreed for four industrial branches (chemical, chemical pulp, paper making, and food industries) as well as for the treatment of municipal wastewater. The proposed project will support JAP objectives by funding both BAT adoption and WWTP construction with special incentives for "hot spot" polluters and innovative technologies.

National Sector Issues to be Addressed by the Project and Strategic Choices

2.7 Slovenian water quality was comprehensively assessed in a National Review under the Danube Pollution Reduction programme (DPRP). The results of the Review supported by other studies indicate that most of the river basin water in Slovenia is moderately polluted (2^{nd} to 3^{rd} quality class).[1] However, in the recent years, surface water quality has been slowly improving, mostly due to the restructuring of industry and to a lesser extent, construction of municipal WWTPs. In the main streams, oxygen depletion (BOD, COD) is no longer a serious concern. However, nutrient overloading and its role in contributing to eutrophication remains an acute problem in Slovenia's lakes and slowly flowing rivers, and of a slightly lesser concern in rapidly flowing streams. Pollution with toxic and dangerous substances is currently mainly associated

[1] Slovenian water quality classification consists of four categories: (i) water which, with disinfection if required, can be used as drinking water and in the food industry, and surface water which can be used for breeding food fish (1^{st} class); (ii) water which, in its natural state, is suitable for bathing, water sports, breeding other sorts of fish and also, with the normal methods of treatment for drinking and use in the food industry (2^{nd} class); (iii) water which is suitable for irrigation and can also, with the normal methods of treatment, be used by industries other than the food industry (3^{rd} class); and (iv) water that can be used for other purposes only after suitable treatment (4^{th} class).

with the accumulation of old deposits in sediments, which can be re-suspended during flood and other high flow events. Finally, groundwater, which is the major source of drinking water for most of the Slovene population, is heavily polluted in some areas due to leakage of agricultural chemicals and leakage from landfills.

2.8 The major sources of nutrient pollution in Slovenia can be broadly classified into municipal, industrial, agriculture and diffuse sources. In the year 2000, municipal wastewater discharges were an estimated 126 Mm^3 (117 Mm^3 in the Slovenian portion of the DRB watershed) of which 71% was treated in WWTPs. Secondary and tertiary treatment, in particular, are lacking (59% of the above mentioned treated wastewater was treated with only primary treatment). Furthermore, 47% of the population, mainly in rural areas, is not connected to the municipal sewerage network, and individual septic tanks often represent a risk to the environment. To Slovenia's credit, efforts have been launched recently to support the construction of WWTPs for some of the bigger municipalities but the expected reductions in overall nutrient levels have been slow to materialise. Industrial activities,[1] in particular paper, metal and chemical industries were estimated to discharge 701 Mm^3 of wastewater into environment (1999), of which 96% was discharged into surface waters. In 1997, only 6% of industrial wastewater was treated (of which 37% with primary treatment only). In the agriculture sector, intensive farming with high levels of fertiliser and pesticide use has lead to the pollution of groundwater with nitrates and pesticides through run-off. Large pig farms, with rudimentary or no wastewater treatment at all, represent a significant point source of water pollution; a particular risk in karstic and groundwater areas and in the vicinity of small streams. For toxic substances (metals, pesticides, organic compounds), industry is estimated to contribute 60% of pollutants, whereas municipal and agricultural sources account for 10% and 30%, respectively. Landfills are a major source of untreated leachates with potentially severe impacts on ground and surface waters. A list of Slovenian "hot spot" polluters has been provided in Attachment 1.

2.9 Revision of Slovenian water pollution legislation to reflect high EU standards, establishment of tight legislative deadlines for emission reductions, stricter enforcement and monitoring of emissions, as well as an ever increasing wastewater tax burden imply that many Slovenian industrial companies, commercial farms, and municipalities have an urgent need to invest in process optimisation, wastewater containment and treatment, and water pollution reduction. Demand for affordable investment funding is significantly greater than existing supply (see Annex 6 for details). Many potential borrowers have difficulties in accessing affordable funding for environmental investments. They also lack the desirable technical assistance to optimise their processes and, where necessary, to prepare technically feasible and bankable investment and borrowing plans. Financial products available on the markets do not always correspond to the needs of the borrowers, some of whom also face specific constraints such as State Aid restrictions and the cap on municipal borrowing (see Annex 6). The project will address these issues through providing (i) assistance to companies for process optimisation, wastewater minimisation and environmental management, and (ii) investment funding targeted to process technology upgrading in the industries, industrial wastewater treatment, municipal WWTP and sewer system construction/improvement as well as wastewater containment and treatment on large livestock farms. In the case of pollution hot spots and other industries discharging permanent toxic pollutants, the Facility will not be limited to reducing nutrient pollution but will cover a broader range of water pollutants.

[1] Also including mining, electricity, gas and water supply.

GEF Operational Strategy/Programme Objective Addressed by the Project

2.10 The project addresses the objectives defined under GEF Operational programme (OP) 8 (Waterbody-based). Specifically, this OP provides for, among other objectives, "… a logical progression of GEF-funded activities – from project development to analyses of transboundary priority environmental concerns to formulation of an international water Strategic Action programme to eventual regional capacity building or ***country-specific*** investment projects." As has been demonstrated above, the proposal has been prepared within the context of the ICPDR, JAP, and the SAP. Moreover, the project will establish a technical and financing modality that addresses key causes of transboundary nutrient pollution in the industrial, municipal and agricultural sectors in Slovenia with a view to developing and demonstrating practical and cost-effective solutions for achieving economically sustainable environmental improvements in the industrial and municipal sectors. One of the major outcomes of the project will be replication of this modality to other countries in the DRB.

Sector-related Country Strategy (EBRD) Goal Supported by the Project

2.11 The goal of the recently revised EBRD Country Strategy (CS) in Slovenia is to advance the country's transition towards a market economy and facilitate its accession to the EU. The CS supports three key objectives: (i) direct funding for the private corporate sector to promote restructuring and good corporate governance; (ii) mobilisation of private capital to finance public, in particular municipal infrastructure; and (iii) provision of investments in the local banking system and insurance industry to promote privatisation and consolidation processes, as well as support to small and medium-sized enterprises (SMEs). The CS identifies a number of key issues including:

- the need to address key Slovenian environmental concerns and assist in the implementation of the EU acquis;
- the obstacles facing Slovenian SMEs in obtaining finance. For many SMEs addressing environmental issues is of lower priority. If access to finance is difficult or the terms are unattractive, it is even less likely that SMEs will borrow to address environmental issues;
- the need for Slovenian banks to diversify their range of products;
- the difficulties faced by smaller municipalities in financing the necessary environmental infrastructure such as WWTP.

2.12 In response to the above, EBRD has, within its CS, made several commitments to financial intermediaries, SMEs, smaller municipalities and the environment. These are:

- to actively support environmentally sound and sustainable development in Slovenia;
- to expand both the volume and the spectrum of funding instruments available to SMEs;

- to work closely with local banks in developing a range of financial products not currently available in the market;

- to provide finance to smaller municipalities through a variety of methods including through financial intermediaries.

2.13 EBRD's Environmental Policy contains a number of key commitments which the planned project supports. These include the following:

(i) EBRD's commitment to work with other financial institutions, EU, bilateral donors and UN organizations in promoting a co-ordinated approach to effective and environmental interventions;

(ii) EBRD's intention to develop a pipeline of viable, stand-alone operations with primarily environmental objectives;

(iii) EBRD's continued contribution to international initiatives, such as those for the Baltic Sea and Danube River Basin, based on the recognition that many of the environmental problems of its region of operations are global and trans-boundary in nature.

2.14 The planned project, by providing both technical assistance, and developing a Credit Facility, channelled through private FIs, available to both SMEs and smaller municipalities, and aiming at reducing pollution entering the Danube River specifically responds to the range of EBRD strategic and policy commitments outlined above.

Sector-related Country Assistance Strategy (WB) Goal Supported by the Project

2.15 Slovenia was the first of the Eastern European transitional economies classified by the World Bank to have achieved "graduated" status. This decision, taken in the year 2000, was based on the consolidation of the country as a nation-state, achieving macro-economic stability and successfully implementing structural reforms which will help ensure its timely accession to EU, projected for 2004.

2.16 The Bank's Country Assistance Strategy (CAS) for Slovenia dates from 1997 and is no longer current. Nevertheless, many of its objectives are still valid. This applies, in particular, to the objective of achieving environmentally sustainable economic development, for which urban water treatment was identified as a potential area for WB-Slovenia co-operation. The project will support this objective by:

(i) contributing to the reduction of point-source water pollution from industry, livestock farms and municipalities; and

(ii) helping borrowers, most of which are privately owned enterprises, to meet legal requirements with lower costs.

2.17 The project also conforms to another major CAS objective in supporting the transformation of the economy, including the banking sector and enhancing competitiveness of the private sector.

Description of the Project Area

2.18 The Slovenian portion of the DRB covers approximately 80% of the total land area of the country (20 000 km^2) and consists of the Mura, Drava and Sava watersheds (Map 1). The DRB runs from the north-west of the country across the highest ridges of Julian Alps, the northern portion of the alpine foothills and across the ridges of the Dinaric-Karstic plains to the border with Croatia in the south-west. The major part of the watershed runs over carboniferous rock formations, which supports a large aquifer. The headwaters of the Mura, Drava, and Sava river basins originate in mountainous areas all characterised by high rainfall before traversing the foothills of the Alps and lowlands.

2.19 The physical landscape is characterised by high diversity dominated by alpine, sub-alpine, dinaro-karstic and sub-panonian environments. The climate varies from the very humid in the Alpine and Dinaric zones to the semi-humid and partly semi-arid more characteristic of Eastern Slovenia. Forests currently cover approximately half of the DRB portion of Slovenia and are particularly prevalent in the Dinaric-karstic, Alpine and sub-alpine parts of the Sava river basin and the highland areas of the Drava river basin. Humid biotopes are represented in various forms, including high and low moors, swamps, flood and swamp forests and meadows. Their total area is estimated to be 26,000 ha which corresponds to a little over 1 percent of the Slovenian territory. Meadows and pastures cover approximately 25% of the territory, cropland little less than 15% and urbanised or barren ground 7%.

2.20 The population of the Slovenian portion of the DRB is an estimated 1.74 million (out of a total population of 1.9 million (July 2001). Only two cities, Ljubljana (capital) and Maribor, have more than 100,000 inhabitants, followed by Kranj and Celje with over 50,000 inhabitants. Approximately half of the Slovenian population lives in small settlements of less than 2,000 inhabitants.

2.21 The Sava river basin covers 58% of the Slovenian territory, has 53% of population and provides two-thirds of the country's drinking water sources. Eighty percent of Slovenian wastewater is discharged in Sava and its tributaries. Pollution of the river begins at the source and strongly increases after Ljubljana resulting in a change in category from 2nd to 3rd water quality class to the Croatian border. By the time it reaches Slovenia, the Drava River is also classified as a 2nd – 3rd water quality class river. In contrast, recent data indicate an upgrading in water quality class for the Mura River from a 3rd to a 2nd class river; an improvement partly attributed to actions implemented by upstream riparian countries. However, Mura has two acutely polluted tributaries, the Scavnica (4th class) and the Ledava (3rd to 4th class). On the Drava, Mura and Celje fields, intensive agriculture and farming with high pesticide and fertiliser use has lead to pollution of groundwater.

3. PROJECT DESCRIPTION SUMMARY AND BUDGET

Project Components

3.1 The main components of the project will be:

- first, and most importantly, the establishment of **a credit facility** (CF) for the provision of subsidised loans to industry, smaller municipalities, and livestock farms for the implementation of water pollution reduction projects;

- second, a **technical assistance** component providing for (i) environmental expert advice in checking lending projects against a series of eligibility criteria (see Annex 5) and in monitoring their performance; (ii) technical assistance and training to develop the environmental awareness and technical competence of the industrial sector; (iii) marketing activities at national level; and (iv) information dissemination to promote and promulgate the objectives and achievements of the CF.

3.2 Other activities expected in a national GEF project addressing water pollution are being supported through ICPDR and GEF regional initiatives (see Attachment 2). The establishment of a "traditional" project management unit is not warranted as the success of this project will depend on demand generated from the private sector, the technical input of process optimisation, wastewater minimisation and investment project preparation and the close collaboration of all partners with participating FIs. The EBRD will have overall responsibility for project implementation, supervision and monitoring.

<u>Component 1</u>. EBRD/GEF Environmental Credit Facility (see Annex 2 for a detailed description)

3.3 Under this component, the EBRD would establish a credit facility ("the Facility" or "CF") where local financial institutions will work as intermediaries to channel money to private sector companies and smaller municipalities planning to undertake investments to reduce water pollutants entering the Slovenian portion of the DRB. The involvement of local financial intermediaries is crucial to the success of the project given that (i) EBRD is unlikely to directly finance projects less than US$ 5 million and cannot therefore reach the target clients; and (ii) through their existing client base, extensive branch network, and their marketing capabilities, local banks are capable of reaching a large number of potential borrowers in the country.

3.4 In direct response to the projected high demand in the Slovenian industrial and municipal sectors, the overall size of the facility is proposed to be US $ 54 million. This amount is based on the Demand Study completed by the Business Advisory Service (BAS) programme in Slovenia in July 2002 (see Annex 6). EBRD's total commitment for the CF will be approximately US $ 45 million which will be blended with a US $ 9 million GEF grant. Under the Facility, EBRD will offer credit lines to commercial banks in Slovenia ("the local banks" or "FIs") which will then on-lend funds to private entities in the industrial sector, smaller municipalities and large

livestock enterprises (the sub-borrowers). The Facility will be demand driven and EBRD funds will be allocated to local banks on a "first come first served" basis. Following the internal approval process at the EBRD, it will sign loan agreements with each participating local bank.

3.5 The Facility will be available to the local banks for two years from the date of signing of the loan agreement, in order to achieve one of the purposes, i.e. accelerating the implementation of environmental investments (see Annex 5) and justify the GEF subsidy component. It is expected that EBRD loans to participating local banks will have a maturity of between 5 and 7 years with a 2 years grace period and equal repayments following the grace period.

3.6 To ensure that the global environmental objectives of the Facility are met, the local FIs will co-operate closely with two groups of environmental consultants selected by EBRD (see component 2 below):

(i) The Environmental Expert, responsible for (i) checking the environmental eligibility of loan applications and assessing if compliance with the associated requirements of cost-effectiveness and provision of an environmental monitoring plan have been addressed, and (ii) undertaking the environmental "sub-project completion test" and other environmental monitoring (see Annex 2 and Annex 5).

(ii) The Turnaround Management/Business Advisory Service (TAM/BAS) programme, responsible for the provision of industrial and technical advisory services for loan applicants. The TAM/BAS programme will also undertake some marketing activities and implement an information dissemination programme (see Annex 2).

3.7 It is expected that the sub-borrowers will apply to the FI of their choice to obtain funding from the Facility. Upon the application by the sub-borrower, the FI will forward the documentation to the Environmental Expert who will determine whether the sub-project is eligible under the GEF/EBRD Environmental Credit Facility, while the FI will go through its internal credit process to appraise non-environmental aspects of the application. Should the sub-borrower and the sub-project satisfy the FIs lending criteria and obtain approval from the Environmental Expert, funding will be made available from the CF (for detailed eligibility criteria see Annex 5).

3.8 In order to foster portfolio diversification, the availability of, and access to, the Facility will be advertised on a national level across different sectors and via FIs. Financial Intermediaries will offer loans targeting different enterprises defined by size, sector, level of wastewater pollution, etc. Pricing of the CF will be determined by EBRD for individual participating banks based on credit risk.

Component 2. Technical Assistance (see also Annex 2)

3.9 This component will consist of environmental expert advice to participating FIs, technical assistance (TA) and training to potential sub-borrowers, marketing activities at the national level, and information dissemination on the project.

3.10 **Environmental expert advice** to participating FIs will be provided by a selected independent local environmental consultant firm (the Environmental Expert). The Environmental Expert will undertake independent technical-environmental review of sub-project proposals and technical monitoring of investments financed from the CF. Past experience has shown that, in the case of environmental credit lines, it is important to "outsource" the environmental due diligence to technical experts, given that the FIs do not normally have the resources to do this themselves. Furthermore, as the Facility offers an incentive element for both FIs and sub-borrowers, it is essential to delegate the checking of eligibility of sub-loans for financing under the Facility to an independent third party. The Environmental Expert will be selected through a competitive tendering process in accordance with EBRD's public procurement rules. In order to safeguard the Environmental Expert's independence, the Expert will be contracted by EBRD under separate Terms of Reference. The contract will include an agreed budget for fees and reimbursable expenses. EBRD will disburse payments for services undertaken against invoices from the Expert. The costs of the Environmental Expert are estimated at US $ 304,750 (see detailed budget in Annex 2).

3.11 The **TA and training** to potential sub-borrowers will address the following needs identified during project preparation:

(i) assistance in process optimisation and wastewater minimisation within companies, prior to scoping the borrowing requirements;

(ii) lack of understanding of real environmental investment needs and lack of ability to ensure cost-effectiveness in selection of the most appropriate technology; and

(iii) assistance in the process of loan application and formulation of technical proposals to ensure conformity with GEF, EU, and national environmental criteria.

3.12 The total costs of the TA and training activities are estimated at US $ 1,382,000, of which US $ 540,000 are sought from GEF. These activities will be implemented by the TurnAround Management (TAM) and Business Advisory Service (BAS) programme (see Annex 2 for description). The donor-financed TAM/BAS programme is already active in Slovenia with a number of companies having benefited from its advice. This programme aims to help beneficiary enterprises to enhance their profitability in order to survive and compete in market economies. In this context, it also assists its clients in achieving compliance with environmental requirements. TAM/BAS participation to the proposed project will exploit and maximise the synergies between regular TAM/BAS activities and the EBRD/GEF Credit Facility.

3.13 The **marketing** activities of component 2 aim to promote wide awareness on the possibilities offered by the project among potential clients in order to ensure a diversified portfolio and maximum environmental benefits. Marketing of the Facility will be undertaken partly by participating FIs as part of their regular customer relations and outreach efforts. To reach clients beyond the established client base of these banks, the project will organise national-level marketing workshops and distribute related information material. The costs of these marketing activities are estimated at US $ 32,500. They will be implemented by TAM/BAS programme.

3.14 The **information dissemination** activities of the project will aim at:

(i) informing a wide range of stakeholders and the general public about the project and its results;

(ii) promoting replication of project concept and innovative technologies demonstrated through project investments; and

(iii) establishing a communication channel between the project and its stakeholders to share views and lessons learned in project implementation.

3.15 Information dissemination activities will be implemented primarily by TAM/BAS programme. They will make use of a range of different channels and means, primarily a website and an e-mail box. Other channels may include brochures, articles, presentations and discussions, and organization of company visits. Links will be strengthened with ICPDR and UNDP DRP in order to ensure information dissemination to regional stakeholders and other GEF DRB projects. EBRD will promote information dissemination and replication at the international level. The costs for the information dissemination activities can be estimated at US $ 30,400 USD.

Table 1: Estimated Project Costs
(millions of US $)

Component	Indicative Costs		Financing Plan		
	Amount (millions US$)	Share of Total	EBRD	GEF	Total
Credit Facility	**54,000,000**	**98.35 %**	**45,000,000**	**9,000,000**	**54,000,000**
Technical Assistance	**907,650**	**1.65 %**	**0.00**	**907,650**	**907,650**
Total	**54,907,650**	**100.00 %**	**45,000,000**	**9,907,650**	**54,907,650**

Benefits and Target Population

Global Benefits

3.16 The project will generate global environmental benefits through achieving industrial performance improvements, reduced wastewater emissions and reduction in trans-boundary water pollution in the DRB. These benefits will result from technical support and investments that achieve one or more of the following (see also Annex 5): (i) meeting national emission reduction standards earlier than required by legislation, (ii) reductions in emissions beyond national standards, and/or (iii) introducing innovative pollution reduction technologies and contributing to their widespread adoption. Through reducing trans-boundary water pollution, the project will contribute to improving the water quality and overall environmental status of the Danube River and some trans-boundary aquifers, and, over time, the Black Sea. Due to Slovenia's relatively modest contribution to the overall pollution loads in the river, direct trans-boundary benefits from the project investments may be limited. However, demonstration effects of process optimisation, wastewater minimisation, and the introduction of new techniques as well as demonstration of the

viability of the project concept, are expected to lead to replication in other DRB countries with more significant benefits.

3.17 The investments funded by the project may also achieve additional benefits for the conservation of globally important biodiversity in Danubian ecosystems, in particular wetlands, as well as possibly addressing greenhouse gas emissions through use of waste to produce renewable energy (e.g. biogas production in livestock farms).

National and Local Benefits

3.18 The project will generate both national and local environmental and socio-economic benefits. Reducing effluent discharges is expected to improve water quality in Slovenian surface water bodies and aquifers, and in turn contribute to the health of aquatic and adjacent ecosystems. The improvements are expected to be more substantial in environmentally sensitive areas where the project will contribute to attainment of stricter effluent requirements based on water quality objectives. Other environmental benefits to which the project will contribute include: (i) preservation of river aesthetics and other natural resources, in particular biodiversity in wetlands and other ecosystems; (ii) enhanced environmental awareness and capacities of local financial institutions; (iii) greater willingness of Slovenian companies and municipalities to undertake environmental investments; and (iv) possibly, renewable energy generation. Finally, in the longer term, enhanced compliance with environmental legislation will create opportunities for its updating and enforcement to respond to highest international environmental standards.

3.19 National socio-economic benefits will accrue via process optimisation. Reductions in polluting emissions will enable commercial operation at lower costs, which in turn will increase compliance levels with national/EU environmental standards. This will have a significant payback, strengthening the financial position of participating companies and municipalities. This is expected to contribute to economic growth and employment opportunities in Slovenia. Improved water quality will reduce water treatment costs, enhance public health (through cleaner drinking and bathing waters) and reduce related costs, and improve the quality of life in neighbouring communities. Moreover, economic benefits will flow from the project's contribution to strengthening the role of private local FIs in the Slovenian economy as well as from the value added generated by the equipment and services needed for the adoption and use of new technologies.

Target Population and Stakeholders

3.20 The project's main stakeholders are:

(a) Local Financial Institutions. Slovenia has 10 large and 15 small commercial banks of which several may participate in the Facility. Other Slovenian private and public financing institutions (such as Ekofund) may be associated with the project as co-funders of target investments;

(b) Industrial and Agricultural Sector Borrowers. These include: (i) the "big" polluters covered by the EU IPPC Directive (106 companies), (ii) water polluting SMEs, and (iii) 10-20 large pig farms. The total number of potential borrowers is estimated to be 363 (see Annex 6);

(c) Municipal Sector Borrowers. These include smaller Slovenian municipalities (the total number of municipalities in Slovenia is 190 of which a large majority can be considered as small);

(d) Selected Public Agencies. National environmental and other authorities, in particular MOEPP and its Environmental Agency responsible for water pollution related policies and legislation, monitoring and financing related public investments, Ministry of Finance and Ministry of Economy;

(e) Selected National Interest Groups. These include organizations such as Chambers of Commerce, Chamber of Agriculture and Forestry, Association of Slovenian Municipalities and Towns, Industry Associations, and the Farmer's Union;

(f) Environmental Technology Firms. These include manufacturers of water pollution reduction equipment and technologies and companies which provide related services;

(g) Selected Regional and International Environmental Agencies. This group includes ICPDR, UNDP, DRP and WB IF, with which the proposed project seeks complementarities and synergies. It also includes EU which provides significant funding for environmental infrastructure improvements in Slovenia, and could possibly co-finance investments with the proposed project;

(h) Selected Regional and National NGOs. At the regional level, these NGOs are grouped under the Danube Environmental Forum (DEF) which has 1 member in Slovenia (Society for Bird Research and Nature Protection). At the national level, there are approximately 30 relevant NGOs.

(i) Slovenia. The final beneficiaries of the project in Slovenia will be the 1.7 million inhabitants of the Slovenian portion of the Danube river basin. The project will contribute to international efforts to protect the Danube river basin for the benefit of its 83 million inhabitants.

Institutional and Implementation Arrangements

Implementation Arrangements

3.21 The Credit Facility component of the project will be implemented by Slovenian FIs under EBRD supervision and in co-operation with environmental consultants recruited under the TA component. Loan applications to the CF are expected through three mechanisms: (i) local bank own marketing; (ii) TAM/BAS programme clients; (iii) direct contacts from companies/municipalities reached by the project's marketing activities. Upon receipt of a loan application, the local bank will undertake an initial screening. Applications that pass this assessment will be examined, for their financial aspects, by the local bank and, for environmental aspects, by an independent Environmental Expert, contracted by EBRD for this purpose (see TA component). If an application meets both criteria, the local bank approves a loan from the Facility

and disburses it to the sub-borrower. The GEF grant portion of the loan will be disbursed by EBRD directly to the company only when the Environmental Expert confirms that the equipment financed with the loan is fully operational. The local FI and the Environmental Expert will continue to monitor the performance of the sub-borrower throughout the loan payback period.

3.22 The respective sub-components of the Technical Assistance component of the project (component 2) will be implemented by: (i) an independent Slovenian Environmental Expert, contracted separately by EBRD for the purposes of supporting participating FI in the eligibility check of loan applications and in environmental monitoring; and (ii) the TAM/BAS programme which is already actively engaged in industrial advisory services in Slovenia and which will provide technical assistance and training to loan applicants as well as undertake marketing and information dissemination activities for the project

3.23 Co-ordination with other international and regional institutions and projects in the DRB, including GEF projects, will be ensured through information dissemination activities as well as through EBRD contacts with these entities.

Project Preparation Activities and Progress to Date

3.24 The need for the proposed project emerged from the UNDP/GEF Danube Pollution Reduction programme (1997-99) which identified a number of priority investments in water pollution reduction in all DRB countries. The project concept entered the GEF pipeline on 10th September 1999 and the PDF-B funds were granted on 30 April 2001. PDF-B activities were launched in autumn 2001 as a joint effort of the EBRD and the Investment Centre of the UN Food and Agriculture organization (FAO), and have been synthesised in the Project Brief. These activities included, *inter alia*, several missions to Slovenia to formulate the project together with stakeholders; studies assessing credit demand and supporting the preparation of environmental eligibility criteria, respectively; and firm-specific company case studies undertaken by the TAM/BAS programme. The project formulation team also visited the ICPDR Secretariat and the UNDP/GEF DRP in Vienna and maintained contacts with these entities throughout project design. EBRD will continue to coordinate with and keep the ICPDR informed during project implementation.

3.25 Stakeholders were consulted by one or more members of the project formulation team throughout project preparation through meetings and other communications. Institutional stakeholders which were involved included local banks, selected companies listed on the DPRP "hot spot" list, MOEPP, Ministry of Agriculture, Food and Forestry (MAFF), Ministry of Finance, Chamber of Commerce, Chamber for Agriculture and Forestry, Ekofund, Jozef Stefan Institute, Regional Environment Centre Slovenia Country Office (REC Slovenia), selected Slovenian consultancy companies and NGOs, ICPDR Secretariat, UNDP DRP, the WB Danube/Black Sea Investment Fund (response awaited) and the Delegation of the European Commission in Ljubljana. In addition, a stakeholder workshop was organised together with REC Slovenia in Ljubljana on 17 June 2002 to present and discuss the project concept (see Annex 4).

3.26 Issues that will be addressed prior to starting project implementation include:

(a) approval of key terms and conditions for establishing the Credit Facility by EBRD management;

(b) selection of participating FIs, agreement of detailed terms and conditions for individual credit lines and signing of loan agreements between EBRD and the respective FIs;

(c) developing implementation documentation for the Facility such as an environmental section for the loan application form, technical assistance application form, eligibility check sheet, and investment monitoring plan template;

(d) finalisation of TORs for the Environmental Expert, the services of the TAM/BAS programme, midterm review, and final evaluation; and

(e) specifying formats for reporting from local FIs and the Environmental Expert to EBRD;

(f) developing plans and material for marketing and information dissemination.

4. PROJECT RATIONALE

Project Alternatives Considered and Reasons for Rejection

4.1 The main alternatives considered and rejected during project formulation include:

(i) channelling the facility through State-owned Slovenian Ekofund. *This alternative was rejected because the project aims at involving private sector in GEF activities, and in the financing of environmental investments in the DRB in general. This is expected to widen the client base, diversify the supply of environmental financing, and enhance the environmental awareness of participating FI. The choice is further justified by the advanced state of the commercial banking sector in Slovenia;*

(ii) focusing the facility only on the industrial sector. *This alternative was rejected because of the significance of municipal waste water in contributing to the total water pollution load in Slovenia, and the links between industrial and municipal wastewater treatment facilities. (Many SMEs discharge to municipal sewer systems and examples already exist of municipality and local industry co-financing WWTP investments);*

(iii) providng loans on market terms instead of subsidising them with GEF grants. *This alternative was rejected because studies undertaken in the DRB indicate that private companies are still hesitant to borrow funds for environmental investments. Moreover, subsidised loans will help the project to catalyse investments that go beyond minimum emission reduction requirements set by the legislator, or that apply innovative – more risky - pollution reduction technologies;*

(iv) loans on market terms instead of subsidising them with GEF grants. *This alternative was rejected because studies undertaken in the DRB indicate that private companies are still hesitant to borrow funds for environmental investments. Moreover, subsidised loans will help the project to catalyse investments that go beyond minimum emission reduction requirements set by the legislator, or that apply innovative – more risky - pollution reduction technologies;*designing a comprehensive national project addressing both point and diffuse sources of water pollution and using different tools. *This alternative was rejected because the aforementioned issues are already addressed by ongoing ICPDR and UNDP/GEF efforts at the regional level; and*

(v) designing the project from the start as a regional project covering all DRB countries. *This alternative was rejected because of the need to test the innovative modalities of the project in one country before extending it to other countries.*

Major Related Projects Financed by Other Development Agencies

4.2 The project was prepared and will be implemented in the context of the GEF Strategic Partnership on the Danube/Black Sea Basin. This initiative consists currently of: (i) two regional GEF/UNDP projects focusing on capacity-building; (ii) a regional Investment Fund (IF) managed by WB, and (iii) two smaller projects, a UNDP-implemented MSP on building environmental citizenship to support trans-boundary pollution reduction in the Danube, with Hungary and Slovenia as pilot countries, and a UNIDO-implemented MSP to apply the programme on Transfer of Environmentally Sound Technology (TEST) in 20 pilot enterprises through capacity-building of existing cleaner production institutions in Bulgaria, Croatia, Hungary, Romania and Slovak Republic. Of the aforementioned projects, the most relevant to the Slovenia project are the UNDP regional capacity-building project (DRP) and the WB IF which are described in more detail below.

4.3 The UNDP/GEF Danube Regional Project (DRP) launched in 2001 supports the implementation of a wide range of capacity-building activities for the purpose of achieving reductions in nutrient loads to the Black Sea. The DRP will focus, first, on developing policies, legislation and guidelines for river basin management, reduction of agricultural nutrient pollution from both point and diffuse sources, wetlands rehabilitation, application of BAT in industry, cost-covering water tariffs, and water pollution charges. Secondly, it will support capacity-building and trans-boundary co-operation at different levels, such as inter-ministerial co-ordination, co-operation between DRB and Black Sea bodies, accidental emergency response, and stakeholder training. Thirdly, it will strengthen public involvement and support public awareness campaigns and community-based initiatives for water pollution reduction. Finally, it will reinforce monitoring, evaluation and information systems to control trans-boundary pollution. Slovenia (led by MOEPP) participates to the DRP together with the 12 other countries of the DRB.

4.4 The World Bank/GEF Danube/Black Sea Investment Fund (IF) will invest in industrial, agricultural, municipal, and wetlands projects in the Basin for the purpose of achieving reductions in nutrient pollution. Ten projects are already under development, and the second tranche of the Facility was approved by GEF Council in May 2002. In line with the World Bank strategy in the area, the IF focuses on poorer Southeast European and Central Asian countries, and it is highly unlikely that IF projects will be implemented in Slovenia. As to eligible investments, the IF focuses on wastewater treatment facilities and does not cover production-related investments. However, Slovenia would profit from the IF Distance Learning programme which is designed to disseminate knowledge about the causes and possible solutions to water pollution in the DRB.

4.5 The Credit Facility is designed to be fully complementary with the aforementioned GEF projects. Therefore, it will not finance activities in the fields of diffuse water pollution, wetlands, capacity-building, policy development, institutional strengthening, and environmental awareness-raising. Instead, linkages have been and will continue to be established with the aforementioned projects to identify areas for co-operation and synergies. Potential areas include: financing of investments identified by other GEF Partnership projects through the CF; dissemination of information on the CF by other GEF Partnership projects; and use of results from technology assessments or lessons learned in IF projects by CF borrowers or vice versa.

4.6 With reference to other funding sources, wastewater is the most important environmental sector for the EU in Slovenia, where it participates in the financing of water

pollution reduction through 3 grant instruments: (i) the Pre-accession Assistance for Central and Eastern European Countries (PHARE) programme which finances investments inter alia in wastewater treatment (mainly municipal); (ii) the Instrument for Structural Policies for Pre-Accession (ISPA) which focuses on large environment and transport infrastructure investments and has financed four municipal WWTPs; and (iii) the Structural Pre-accession Assistance for Central and Eastern European Countries (SAPARD) programme which finances rural infrastructure projects, some of which may also contribute to reducing water pollution. In addition, EU finances regional co-operation and research projects related to the protection of the DRB. EU funding in Slovenia reflects the priorities of the accession process, and will hence focus on upgrading municipal wastewater treatment in large settlements. The planned project, with its focus on industry and a broader range of municipal investments, will complement EU activities in the country. Possibilities for co-financing will also be explored.

4.7 Ekofund was established by the GOS by the Environmental Protection Act (EPA) and started its operation in 1994. Ekofund is a State-owned, non-profit oriented financial institution which provides loans for environmental protection investments in Slovenia at favourable interest rates. Ekofund lending is oriented by EPA priorities, which implies that water pollution is one of its main fields of operation. The industrial and municipal sectors receive an estimated 40% of Ekofund loans respectively, while the remaining 20% is lent to households. Ekofund does not operate in the agricultural sector. Recently, the European Investment Bank (EIB) provided a loan of €10 million for 2001-2004 for the upgrading and extension of water supply and wastewater disposal networks, to be managed by Ekofund.

Lessons Learned Reflected in Project Design

4.8 Earlier and ongoing GEF and other projects to reduce water pollution in the DRB provide some important lessons learned which are reflected in the design of the proposed project. These include:

- Setting up new institutional structures, information networks, and planning approaches in transition countries is time consuming, and further efforts in the area should make use of and reinforce existing structures. *The project addresses this issue by working directly with existing institutions and programme for environmental expert advice and technical assistance and through established private FIs in the management of the Credit Facility, as well as through collaborating with established structures such as ICPDR and UNDP DRP project.*
- In many DRB countries, compliance with environmental laws and regulations is not controlled, and is consequently very low. *While this is less the case in Slovenia, it is considered in the project design by incorporating monitoring procedures for the environmental performance of the investments financed from the facility, which require the borrowers to demonstrate the achievement of planned emission reductions. This feature will be consistent with the design requirements if the concept is replicated in other countries of the Danube Basin.*
- International expert teams should be avoided, and both technical and financial assistance should be carried out as far as possible under contracts awarded to highly-qualified national experts/consultants. *The Credit Facility will be managed by Slovenian banks, with the help of local environmental advisors.*

4.9 While the GEF has no precedents for non-grant financing modalities in its International Waters (IW) Focal Area (FA), the Climate Change FA provides some examples of risk guarantee and contingent grant facilities operated by the WB and International Finance Corporation (IFC). Lessons learned from the GEF/IFC Hungary Energy Efficiency Co-financing programme and other similar projects include:

- Existing market players should be used whenever possible. Strong capabilities in financial flows management and administration, and in technical-economic appraisals, should be the key characteristic of all executing agencies. The financial products of the project have to be well developed to meet the specific needs and characteristics of the market. This is addressed in the project through implementation by existing commercial banks the selection of which will take into account their capacities. The strong experience of these banks in Slovenia will be profited from in the design of the financial product.
- The entities in charge of financing sub-projects need to have access to project development funds or to advisors which can help in identifying and developing good projects. This is addressed in the project through a TA component**;**
- The projects should lend only to credit-worthy clients; and establish high credit-worthiness criteria, which are rigorously enforced. Full collection of interest and principal repayment is an overriding concern. These issues will be addressed by implementing the project through experienced commercial banks which will apply their own risk management policies;
- Participating FIs need to be proactive in the development of a project pipeline. Marketing is a critical step in the success of a credit facility. These issues are addressed in the project through including marketing and information dissemination activities that also make use of third parties;
- Financing facilities disbursed through intermediaries should engender competition amongst participating FIs, as well as allow for reallocation, and hence best use, of resources. The Credit Facility will engage several local FI. The other issues will be addressed at the stage of negotiating agreements between EBRD and local FIs**;**
- The project should be monitored thoroughly to ensure that the funds are spent as agreed, the investments implemented properly and operated as designed. The project will require an environmental monitoring plan to be checked by the Environmental Expert prior to loan approval. Agreement to environmental monitoring will be incorporated in loan agreements between the sub-borrowers and local FIs; and
- The double role of SMEs, as borrowing investors and as businesses providing equipment/services for borrowers should be recognised, and consequently, technical assistance activities should also target the latter group and link them with participating FIs. This will be addressed in the project by incorporating the issue in the terms of reference of the technical assistance providers.

4.10 EBRD has extensive experience in extending credit lines through local commercial banks in Central and Eastern Europe. Of particular relevance are the Bank's EU co-funded environmental credit line in Hungary and its joint EBRD/EU regional credit facility to support small and medium-sized enterprises (SMEs) in the ten EU accession countries. Under the latter

facility, EU grants are used to provide a package of incentives to encourage local FIs to embark upon new financing instruments and activities which, for commercial reasons, they cannot and would not undertake purely on their own. Key lessons learnt from this and other EBRD projects include:

- The involvement of local commercial financial intermediaries is crucial to the success of any project targeting local companies, particular in the SME sector, given the existing client base of these banks, their presence throughout the country and their marketing capabilities. The proposed CF will be channelled through Slovenian FIs. It is expected that most if not all of the FIs will be existing EBRD client banks.

- Local banks need to be provided with incentives in order to undertake financing which they would not otherwise consider due to the complex appraisal process, smaller transaction size and risk profile of environment-related projects. The project will address this issue by using a portion of the GEF grant as an incentive fee for FIs.

- In the case of specific environmental credit lines, it is important to "outsource" the environmental eligibility check of sub-projects to an independent environmental expert. A portion of the GEF grant will be used to finance the services of an independent Environmental Expert who will check conformity of sub-projects with the environmental eligibility criteria and monitor completion and implementation of the environmental investments.

4.11 In addition, EBRD will follow closely the implementation of recently launched GEF/World Bank/IFC non-grant projects, such as Commercialising Energy Efficiency Finance in Central and Eastern Europe, Croatia Energy Efficiency Project, Romania Energy Efficiency project and Krakow Energy Efficiency project, to incorporate relevant lessons learned.

Indications of Borrower and Recipient Commitment and Ownership

4.12 Slovenia is one of the most advanced EU accession countries with respect to the harmonisation of legislation with EU environmental regulations and directives. It has concluded the EU accession negotiations on the Environmental Chapter of the acquis with very few requests for extension periods. A new Water Act is currently being finalised, the Government has recently approved a National programme for the Construction of Municipal WWTPs, and wastewater treatment is prioritised in EU support schemes. Slovenia has also made significant progress in strengthening the institutional capacities of the environmental administration *inter alia* by creating a new structure, the Environmental Agency (EAoRS) within MOEPP which is responsible for enforcing legislation on water pollution and related monitoring.

4.13 In the banking sector, the Government is engaged in efforts to privatise State-owned banks and to promote private investments.

Value Added of EBRD and GEF Support to the Project

4.14 GEF and EBRD will create added value in particular in terms of: (i) additional investment funding to address trans-boundary water pollution in DRB, including favourable loan terms and leverage effect of strong international agency participation; (ii) maximum use of the substantial analytic work, undertaken by other GEF-supported programmes, identifying core environmental problems, their causes, and priority investments in the DRB, which will help the project avoid duplication with other on-going efforts; (iii) establishment of strong linkages with other ongoing GEF projects in the area, contributing to complementarity and synergies between the initiatives and thus optimal use of scarce resources; and (iv) facilitation of information dissemination and dissemination of lessons learned to ensure that the project results will be replicated in other DRB countries thereby enhancing its cost-effectiveness.

4.15 The project will benefit from earlier EBRD experiences in the geographical and thematic area. EBRD is active in the financial institutions sector in Central and Eastern Europe, and has a longstanding experience in involving local financial institutions as intermediaries to channel money to the private sector. The EBRD project which is most relevant to the proposed project is a joint EBRD-EU facility, established in April 1999, to support SMEs in EU accession countries. Under this facility, EBRD funding is extended to local banks for initiating or developing their equity and debt financing to SMEs, and this is supported by a grant from EU PHARE programme. To date, EBRD has extended Euro 333 million to 23 banks in 10 countries in conjunction with Euro 58 million grant financing from EU. Lessons learned from this project are discussed above. Other relevant EBRD projects include EU co-funded environmental credit line in Hungary, energy efficiency credit lines in Slovak Republic and Romania, regional funds for energy efficiency and emission reduction, and environmental investment, and financing for small municipalities through local banks in Croatia.

4.16 In Slovenia, other relevant EBRD experience, from which the project will benefit, include: (i) earlier cooperation with local FIs in environmental assessment of loan applications; (ii) organization of training for local FIs on environmental risk management and environmental financing opportunities; (iii) organization of environmental consultant training courses; and (iv) co-financing of the WWTP of the city of Maribor.

5. SUSTAINABILITY AND RISKS

Sustainability

5.1 The institutional sustainability of the project is ensured by its execution through established and independent Slovenian private and public sector actors - local commercial banks, local Environmental Expert, TAM/BAS programme, and private companies and municipalities - acting in partnership to achieve project objectives. These actors will undertake project activities on the basis of their comparative advantage and previous expertise, pursuing commercially viable development strategies and taking specific responsibilities within their core business competency. Their selection will be preceded by, in the case of local banks, a thorough appraisal by EBRD, in the case of the Environmental Expert, a competitive tendering process, and in the case of final beneficiaries, a comprehensive financial and environmental due diligence review. Participation in the project will build capacities among these actors, which will further enhance project sustainability.

5.2 The project is designed to be fully supportive of GOS policies and programmes in the field of water pollution. Its social sustainability depends on the effectiveness and enforcement of this policy framework. The Slovenian government and the public already attach great importance to these policies (see section on indications of borrower and recipient commitment and ownership) and this support is likely to be further strengthened by Slovenian accession to the EU as well as by policy development, institutional strengthening and capacity-building activities of other ongoing GEF DRB projects. National-level benefits from water pollution reduction, such as enhanced public health, improved life quality and improved municipal infrastructure, are likely to generate further support for proactive policy development and implementation in this field. Information dissemination activities included in the project will contribute to this process.

5.3 The project will encourage Slovenian water-polluting companies and municipalities to implement environmental improvements, which go beyond minimum national requirements or reach them sooner than under the baseline scenario. The sustainability of this approach is based on its firm linkage with national policies, commercial pragmatism, and economic benefits to participants and borrowers (reduced costs of compliance with national legislation and decreased wastewater tax burden), the inclusion of a technical assistance component strengthening the borrowers' environmental management capacities, and related GEF efforts to strengthen public environmental awareness in Slovenia.

5.4 Project sustainability will also be strengthened by its contribution to market development in water pollution reduction technologies and in environmental financing products. The project will strengthen the technology market by: (i) contributing to demand through increasing the number of companies investing in water pollution reduction; (ii) providing technical assistance to these companies; and (iii) financing the demonstration of, and related information dissemination on, innovative technologies which should lead to enhanced client confidence in and reduced costs of these technologies. As to environmental financing products, the project will contribute to market development by: (i) increased demand for these financing products resulting from co-financing needs and strengthened environmental capacities of borrowing companies, and (ii) stronger environmental capacities of local FIs.

5.5 Future financial sustainability of individual investments financed from the project will crucially depend on the performance of the borrowers in operating the investments. The strict financial criteria applied by the project in selecting investments will contribute to its financial sustainability. Careful selection of participating FIs (see Annex 2) will also enhance sustainability, minimising the risk associated with FI lending.

Replicability

5.6 Developing and demonstrating an innovative concept of public/private partnership in water pollution reduction, with a view to its subsequent replication, is one of the main objectives of the project. Successful replication could take several forms, including: (i) establishment of other water pollution credit lines/facilities disbursed through private channels and subsidised by GEF or other public funding sources; (ii) providing support for other non-grant financing modalities (guarantee facilities, contingent financing facilities etc.) involving both public and private institutions and funding sources; and (iii) increased participation of private FIs in financing water pollution investments under normal market terms and conditions. Replicability of the project also covers increased user confidence in, and cost-reductions of, innovative water pollution reduction technologies demonstrated through project investments.

5.7 Though the operational modality has been implemented in other countries in support of economic and other objectives, this project is designed as a pilot project in the water sector testing the viability of the concept in Slovenia and later replicating it both within the country and in other DRB countries. The replication potential is enhanced by the similarities between DRB countries and Slovenia, in both environmental and some industrial/socio-economic terms. Neighbouring DRB countries have an even more pressing need than Slovenia for environmental financing to meet EU accession and related requirements. Slovenia was chosen as a pilot country because, as one of the most advanced DRB economies, it provides a good environment for testing and refining the concept. Harmonisation of Slovenian environmental legislation with the EU acquis is almost completed, and related enforcement and monitoring systems are in place and operational. The Slovene private banking sector is well developed, and local FIs are interested in participating in the project. Strong environmental expertise needed for project preparation and implementation is also available locally.

5.8 Replicability is reflected in project design in several ways:

- First, the project will be managed through existing institutions and commercial banks. Its replication in other countries would not require establishing new institutions. Both EBRD and the TAM/BAS programme have extensive experience in other DRB countries. EBRD has a network of FIs in all DRB countries through which similar credit facilities could be extended, though there may be issues with the development of the industrial base or the openness of local banks to environmental financing. The BAS programme has operational offices in many of the countries.

- Second, the project provides a non-grant financing modality which should facilitate replication of the concept in countries with severe constraints on grant funding for environmental purposes.

- Third, the project is based on a flexible, demand-driven approach which also provides for technical inputs supporting 'own resource' solutions. The modality of operation, with minimum pre-determined requirements, can be easily modified and applied in different settings.

- Fourth, the project reflects a regional/basin-wide approach, based on inputs from regional institutions and programmes, such as ICPDR and UNDP/GEF DRP during project preparation.

- Finally, a comprehensive information dissemination strategy is built in the project to ensure replication.

5.9 The implementation of the project in Slovenia is expected to provide EBRD, GEF and other stakeholders with experiences, which help with further developing the project concept and management. These experiences can be used to streamline the approach thus moving it closer to commercial terms and reducing the level of concessional funds required in future replication.

5.10 In the long-term, replication results are also expected to reach beyond the DRB since many river basins experience similar financing constraints which hinder implementation of environmental investments. The flexibility of the project concept allows for replication in a wider range of environments. However, certain preconditions have to be met, in particular the need for supportive market conditions, the inputs of pragmatic industrial experience and knowledge, the existence of strong local FIs, a relatively advanced level of environmental legislation and its enforcement, as well as the availability of limited grant funding to cover credit subsidies, technical assistance and management costs.

5.11 Concerning short-term replication in Slovenia, assuming full disbursement of the Credit Facility, continuing existence of unmet demand for technical input and investment funding, and continued GEF support, EBRD may be willing to increase the funds allocated to the project.

Critical Risks

5.12 As in any innovative approach, the project entails certain risks. These include:

- The costs associated with the establishment, operation and maintenance of primary and secondary treatment in municipal WWTPs are very high, which, together with frequent cases of inefficient management and low tariff collection rates puts into question the financial sustainability of municipal WWTP investments. *The risk of payback failures is controlled in the proposed Credit Facility by ensuring that eligible loan applications are financially reviewed by the local FIs using strict financial criteria.*

- Poor project quality at entry may result in unrealistic expectations, disbursement delays, and failures to meet targets of wastewater projects, and adequate preparation is therefore a high priority. *The planned project will address this issue by a separate technical assistance component.*

- There is a risk that due to the existence of the Ekofund, demand for the proposed CF could be limited. Ekofund, which is a State-sponsored fund, has the ability to

borrow from IFIs, and is able to increase its capital in response to demand. It also is closely affiliated with the MOEPP and has low operating costs. However, State Aid Regulation limits Ekofund's ability to lend to the private sector (State Aid can only be used to cover up to 30-40% of the investment costs, see Annex 6); this restriction will not apply to the proposed CF as its associated GEF grant, when channelled through private FI, will not be considered as State Aid. Furthermore, Ekofund has no TA or training capabilities; it doesn't lend to the agricultural sector or to higher risk potential clients; and, it has a cap on lenders. The Ekofund alone is therefore not able to satisfy the existing demand for financing the type of environmental investments targeted with this project. The proposed CF will fill this gap by providing an additional, complementary source of finance. *On this basis, EBRD has raised the issue of relations between Ekofund and the proposed CF with the relevant Slovenian Ministries and defined the nature and scope of the CF in relation to other environmental financing initiatives.*

- An economic downturn could negatively impact the demand for the loans and portfolio quality, which would slow the disbursement of the Facility, and affect the global financial performance of partner banks. *This risk is minimised by the stability of the Slovene banking sector and of the country's economic growth which enables it to meet all the deadlines for successful European Union integration. The project will further contribute to improving the competitiveness and economic strength of participating enterprises.*
- Defaults by sub-borrowers to FIs could undermine the success of the Facility in terms of achieving its environmental objectives. *The project will ensure that the local banks adopt sound lending practices and methodologies to reduce the risk on sub-loans.*
- State enforcement for non-compliance might be weak, causing the companies not investing in clean technology. *This risk will be mitigated by strong revenue demand from the regulating institutions, and by strong pressure from the EU to enforce EU-harmonised legislation. The compliance will be closely monitored as Slovenia is expected to join the EU in 2004.*

6. MONITORING AND EVALUATION

6.1 Monitoring and evaluation (M&E) of the project is critical to establishing a sound precedent for non-grant mechanisms in the GEF IW portfolio. The project will be monitored at three levels. First, the environmental impacts of the investments financed with project funds will be technically monitored by the Environmental Expert, and reported to the participating local bank and EBRD (see Annex 2). Second, the financial monitoring of the loans will be undertaken by participating local banks, in accordance with their standard procedures**.** Third, EBRD, as a GEF Executing Agency, will monitor the overall performance of the project including local FIs, Environmental Expert, and TAM/BAS performance in managing project activities. The monitoring of results and impacts will be based on the performance indicators (see Annex 1) which measure both direct and indirect impacts of the project.

6.2 The Environmental Expert will visit sub-borrowers once the sub-project being financed is successfully implemented and operational. The Environmental Expert will undertake a "sub-project completion test", i.e. confirm that the sub-project is operating according to the parameters stated in the original loan application to the FI, and provide a "sign-off" to the sub-borrower, the FI and the EBRD. Without the sign-off of the Environmental Expert, the sub-borrower will not receive the GEF grant. Following sub-project completion, each sub-borrower will be required to submit monitoring reports to the Environmental Expert, as often as specified in the Environmental Monitoring Plan for the sub-project. The Environmental Expert will undertake a monitoring visit to each sub-project one year after its completion to verify the reported results.

6.3 The FIs will, as part of their standard business practices, require clients receiving finance through the Facility to report on a regular basis. Reports to the FIs will include the sub-borrowers' financial statements and updates on the environmental monitoring plan.

6.4 The TAM/BAS programme in Slovenia normally provides the TAM Group in EBRD with a final report for each of the individual projects it has undertaken. The same requirements will apply to TAM/BAS activities financed by the proposed project. TAM/BAS reports will provide an additional source of information for assessing the impacts of the sub-projects financed from the Facility. TAM/BAS programme will also report separately to EBRD on the marketing and information dissemination activities that it undertakes for the project.

6.5 Requirements on regular reporting from FIs, the Environmental Expert, and TAM/BAS to EBRD will be incorporated in the agreements and TORs of these institutions.

6.6 EBRD will monitor the facility in a number of ways. First, the Bank will maintain a database of sub-projects financed through the Facility to help keep track of the amounts of money disbursed under the facility and an estimate of potential emissions reductions from sub-projects financed to date. On a six-monthly basis, participating FIs will be required to provide EBRD with reports on disbursements, and existing sub-borrowers' financial performance. The general financial position and performance of the FIs will be closely monitored through semi-annual portfolio overviews and reports on problem loans, and annual audited accounts. The Environmental Expert will produce semi-annual reports to EBRD on environmental monitoring activities undertaken, and on aggregate emission reductions resulting from sub-projects. At the

end of the project, the Environmental Expert will be required to complete a Final Report documenting the total reductions in pollutants from sub-projects entering the Slovene portion of the DRB.

6.7 EBRD will prepare the following reports on the GEF grant: semi-annual progress reports, a final report, and a final audited financial statement within 6 months of project completion. The semi-annual and final reports will cover: implementation progress, ratings of global environmental objectives, sustainability and replicability, cross-cutting themes such as capacity-building and stakeholder participation, lessons learned, and other issues required by GEF PIR. World Bank/GEF will have the right to request information at any time between the regular six-monthly reports to ensure that objectives of the project are being achieved.

6.8 A mid-term evaluation will be undertaken by an independent expert between 12 and 18 months after the first disbursement of the first loan to an FI to inform EBRD of mid-course progress and to advice on any modifications required to maximise project results and impacts during the remaining implementation period. The mid-term review and the final evaluation (see below) will make use of a participatory round table.

6.9 A final evaluation will be conducted by an independent expert prior to project closure. To await the end of the repayment period of all loans would undermine the usefulness of the evaluation in replicating the project concept and influencing future project design. Therefore, this evaluation will be based on available data considered indicative of portfolio performance, the success of the project in originating loans, the achievement of objectives, and the impacts of the project.

6.10 The results from monitoring and evaluation will be disseminated widely at both national and international level within and beyond the GEF community through reports, presentations and other means, to ensure cross-learning and exchange of experiences. The M&E activities will follow GEF requirements on ensuring transparency in the availability of, and ease of access to M&E information, follow-up of M&E findings in project implementation, as well as dissemination of lessons learned.

ATTACHMENT 1

SLOVENIAN WATER POLLUTION HOT SPOTS AND OTHER PRIORITY INVESTMENT TARGETS

Municipal (33)[1]

1. WWTP Ljubljana (under construction[2])
2. WWTP Maribor (under construction)
3. WWTP Celje (ISPA funding confirmed)
4. WWTP Murska Sobota
5. WWTP Lendava (constructed)
6. WWTP Rogaška Slatina
7. WWTP Sevnica
8. WWTP Krško (ISPA funding confirmed)
9. WWTP Brežice
10. WWTP Vrhnika
11. WWTP Trbovlje
12. WWTP Velenje (Šoštanj) (ISPA funding confirmed)
13. WWTP Ptuj
14. WWTP Jesenice
15. WWTP Domžale
16. WWTP Metlika
17. WWTP Novo Mesto
18. WWTP Crnomelj
19. WWTP Ljutomer
20. WWTP Kranj
21. WWTP Škofja Loka
22. WWTP Bohinjska Bistrica
23. WWTP Radovljica
24. WWTP Krajnska Gora
25. WWTP Tržiè
26. WWTP Litija
27. WWTP Zagorje
28. WWTP Hrastnik
29. WWTP Dravograd
30. WWTP Mislinja
31. WWTP Slovenj Gradec
32. WWTP Kasaze
33. WWTP Slovenske Konjice

[1] Sources: hot spots 1-21 included in the DPRP Slovenia National Review 1998; hot spots 1-13 and 22-31 included in ICPDR JAP 2001; hot spots 1-17 and 22-33 included in the National programme for WWTP Construction, 2001.

[2] Brackets contain information on current status, collected at a meeting with MOEPP in October 2001.

Industrial (9)[1]

1. Brewery Union Ljubljana
2. Brewery Laško
3. Pulp and paper plant Paloma
4. Paper Factory ICEC Krško
5. Leather Industry Vrhnika
6. Dairy Factory Ljubljana
7. Paper Industry Radeče
8. Food Industry Pomurka M. Sobota
9. Dairy Factory Maribor

Agricultural (4)[2]

1. Farm Podgrad
2. Farm Ihan
3. Farm Jezera – Rakičan
4. Farm Nemščak – Ižakovci

[1] Sources: hot spots 1-9 included in the DPRP Slovenia National Review 1998.

[2] Sources: hot spots 1-4 included in the DPRP Slovenia National Review 1998; hot spot 1 included in the ICPDR JAP 2001.

ATTACHMENT 2

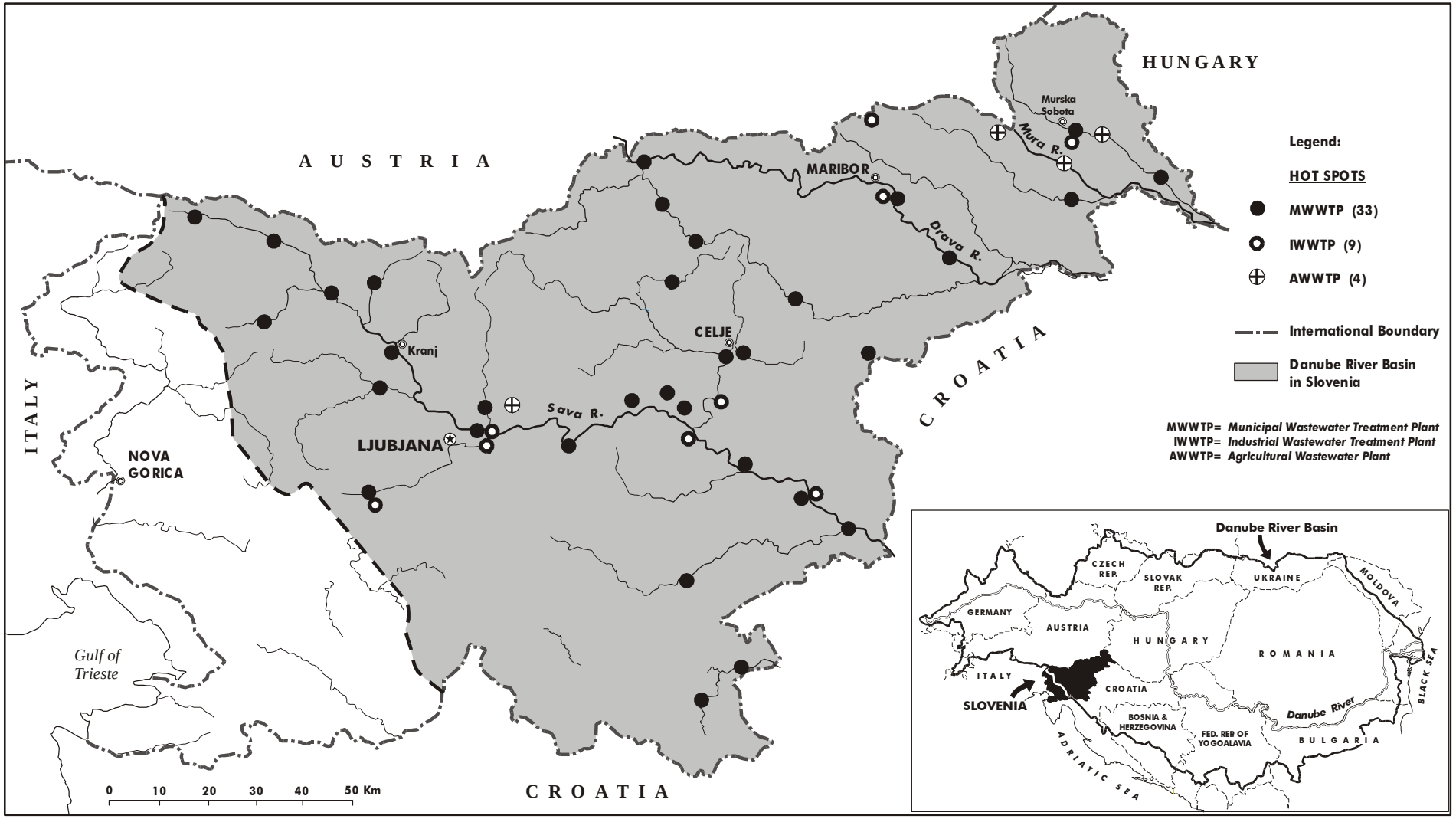
ICPDR COMPLEMENTARY ACTIVITY MATRIX

Needs for complementary activities identified during project design	**Other GEF activities in the DRB**		
	Activity	**Duration**	**Costs (USD) /1**
Updating of hot spot analyses to identify priority investments	1. DRP: Updating of industrial hot spot inventory	2001-03	included in 23.
	2. DRP: Identification of key industries in sensitive areas	2001-06	included in 23.
	3. DRP: Updating of agricultural hot spot inventory	2001-03	included in 22.
	4. DRP: Inventory of high accidental risks spots	2001-06	included in 17.
	5. DRP: Analysis of sediments and their impact on Black Sea ecosystems	2003-06	16,727
Awareness-raising	6. DRP: Applied awareness-raising through a "small grants programme"	2001-06	204,182
	7. DRP: Public awareness raising campaigns	2001-06	105,091
	8. UNDP MSP awareness-raising activities	2000-02	52,567
Capacity-building	9. DRP: Training programmes on BAT	2001-06	included in 23.
	10. DRP: Training and consultations on resource management and pollution control	2001-06	46,545
	11. DRP: Support for NGO and community involvement	2001-06	56,818
	12. DRP: Training on the use of the ICPDR Information and Monitoring System	2001-06	included in 33.
	13. WB IF: Distance Learning programme	2002-07	no costs in SI
	14. UNDP MSP capacity-building activities	2000-02	276,475
Institutional strengthening	15. DRP: Implementation of systems of water pollution charges and incentives	2001-06	19,895
	16. DRP: Interministerial committees and other coordination mechanisms	2001-03	3,455
	17. DRP: Improvement of procedures and tools for accidental emergency response	2001-06	36,124
	18. DRP: Development of economic instruments for nutrient reduction	2001-06	15,818
	19. DRP: Memorandum of Understanding ICPDR-ICPBS	2001-06	4,546
	20. DRP: Reinforcement of the ICPDR Information and Monitoring System	2001-06	included in 33.

Policy development	21. DRP: Development and implementation of river basin management guidelines	2001-06	98,007
	22. DRP: Review and development of BAP policies	2001-06	73,549
	23. DRP: Review and development of BAT policies	2001-06	62,644
	24. DRP: Development of cost-covering concepts for water tariffs	2001-06	22,622
	25. DRP: Wetlands policy development	2001-06	40,069
	26. DRP: Reduction of phosphorous in detergents	2001-06	17,675
Projects on reducing diffuse agricultural pollution	27. DRP: Pilot projects on promoting BAP to reduce agricultural pollution	2001-06	73,549
	28. WB IF: Agricultural investment projects	2001-07	no costs in SI
Monitoring	29. DRP: Development of monitoring tools	2001-06	51,055
	30. DRP: Definition of status indicators for Danube and the Black Sea	2001-06	Included in 19.
	31. DRP: Monitoring of wetlands' nutrient removal capacities	2001-06	21,567
	32. DRP: Development of indicators for project monitoring and impact evaluation	2001-06	12,982
Information dissemination	33. DRP: Reinforcement of the ICPDR Information and Monitoring System	2001-06	63,263
	34. DRP: Information dissemination of lessons learned in WB IF projects	2001-06	no costs in SI
	35. WB IF: Website	2001-07	no costs in SI
	36. UNDP MSP information dissemination activities	2000-02	30,959
Total Costs for Slovenia		2001-07	**1,406,184**

1/ Costs for Slovenia derived by dividing overall project output costs with the number of participating countries.

MAP 1. THE REGION AND PROJECT AREA WITH LOCATION OF WATER POLLUTION "HOT SPOTS"



TCI602-70/SLOVENIA-HOTSPOTS/P2

GEF/SLOVENIA

REDUCING WATER POLLUTION IN THE DANUBE BASIN

ANNEX 1

LOGICAL FRAMEWORK

ANNEX 1

LOGICAL FRAMEWORK

Hierarchy of Objectives	Key Indicators	Means of Verification	Critical Assumptions
Project Goal			
Reducing trans-boundary water pollution in the DRB.	Aggregate total of emissions of nutrients and priority substances from point sources in the Slovene portion of the DRB declines.	National/EU/ICPDR/DRP reports on water emissions in the DRB.	
Project Purpose	**Key Indicators**	**Means of Verification**	**Critical Assumptions**
Reduction of industrial, municipal and agricultural point-source water pollution (nutrients and toxic substances) in Slovenia. Demonstration of project concept based on financial intermediary/private sector partnership in pollution reduction.	Total volume of emissions reduction from projects financed by the Credit Facility. Number of project-supported companies and municipalities assisted in achieving compliance with national/EU legislation on water pollution in Slovenia. Number of similar financing facilities created in Slovenia and other DRB countries.	Project progress, evaluation and completion reports. National/EU/ICPDR/DRP reports on water emissions in Slovenia. National/EU/ICPDR/DRP reports on progress towards compliance with EU acquis.	Gains in the emission intensity of industrial operations are not offset by the overall increase in industrial activity (and improvements in municipal wastewater treatment are not offset by population growth). DRB governments' continued commitment to protecting the river basin and implementing related policies. DRB governments' continued commitment to maintaining an attractive climate for private investments. Complementary national and regional programmes to address diffuse pollution, wetlands protection, awareness-raising, capacity-building, etc. are implemented.

Outputs	Key Indicators	Means of Verification	Critical Assumptions
Increased investments in water pollution reduction in Slovenia.	Number and volume of loans from the Credit Facility.	Lending reports of participating FIs.	Enhanced availability of financing for water pollution reduction in Slovenia leads to increased investments in water pollution reduction. Investment in water pollution reduction reduces emissions of nutrients and/or toxic substances from the plant concerned. Demonstration of technologies leads to their increased adoption through increased user confidence and cost reductions. Participation of local FIs in the project will lead to increased awareness of the opportunities of lending for water quality projects. Dissemination activities lead to replication of project approach in Slovenia and other DRB countries.
Early compliance by borrowers with national/EU water pollution legislation.	Number of borrowers achieving emission standards/conditions before deadlines.	Progress reports.	
A wide range of water pollution reduction technologies demonstrated.	Number of technologies used in the investments financed from the Facility.	Progress reports.	
Increased participation of local FIs in financing and risk sharing of water pollution investments.	Number of FIs participating in the Credit Facility.	Progress reports.	
Enhanced awareness of the project and its results.	Number of visitors on Project website; number of responses to information requests/comments.	Progress reports.	

Activities	Budget (US$ '000s)	Means of Verification	Critical Assumptions
Component 1. Credit Facility • Establishment of the Credit Facility; • Presentation of loan applications by sub-borrowers; • Review of loan applications against environmental and financial eligibility criteria; • Disbursement of loans and subsidies; • Environmental and financial monitoring, reporting and evaluation.	US$ 9,000	Disbursement and audit reports.	Local FIs provided with sufficient incentives to participate in the Credit Facility and make full use of its resources. Borrowers provided with sufficient incentives to invest in water pollution reduction (existence and enforcement of emission standards, effluent conditions, wastewater tax, etc.). Existing supply of financing for water pollution reduction insufficient to meet the demand. EBRD and local FI general loan terms and conditions acceptable to borrowers.
Component 2. Technical Assistance • Environmental Expert • Technical assistance and training • Marketing • Information dissemination	US$ 907	Disbursement and audit reports.	

GEF/SLOVENIA

REDUCING WATER POLLUTION IN THE DANUBE BASIN

ANNEX 2

DETAILED PROJECT DESCRIPTION

ANNEX 2

DETAILED PROJECT DESCRIPTION

A. INTRODUCTION

1. The European Bank for Reconstruction and Development (EBRD) in co-operation with the Global Environment Facility (GEF) plans to initiate a project to contribute to the reduction of trans-boundary water pollution in the Danube River Basin (DRB). The specific objectives of the project are to:

(i) support the reduction of nutrients and toxic substances discharged by industrial, municipal and agricultural polluters in the Slovenian portion of the DRB, and;

(ii) develop and demonstrate an innovative concept of financial intermediary/private sector partnership in water pollution reduction, with a view to facilitating its subsequent replication elsewhere in the DRB.

2. These objectives will be accomplished through the creation of a subsidised credit facility (the "Facility" or "CF") to be channelled through local Slovenian financial intermediaries (the local banks or FIs) in Slovenia with the aim of financing investments that reduce water pollution in the DRB. The CF will be supported by a Technical Assistance (TA) component.

3. This annex presents a detailed description of the project's two components, Credit Facility and Technical Assistance. The Credit Facility is the project's main component. It will provide subsidised loans through local banks to industry, smaller municipalities, and livestock farms in Slovenia for the implementation of water pollution reduction projects. The TA component will support the implementation of the CF through providing: (i) environmental expert advice to participating banks; (ii) technical advice and training to potential sub-borrowers; (iii) marketing; and (iv) information dissemination activities. The other activities that would be expected to be included in a national GEF project which addresses water pollution are being supported through ICPDR and GEF regional initiatives (see Attachment 2 accompanying the Main Document).

B. Project Components

Component 1. EBRD/GEF Environmental Credit Facility (Total: US$ 54.0 million; GEF: US$ 9.0 million; EBRD US$ 45.0 million)

4. Under the EBRD/GEF Environmental Credit Facility, the EBRD would establish a credit facility where local financial institutions will work as intermediaries to channel money to private sector companies and smaller municipalities planning to undertake investments to reduce water pollutants entering the Slovenian portion of the Danube River. The involvement of local private FIs is crucial to the success of the project given that (i) EBRD is unlikely to directly finance projects less than US$ 5 million and cannot therefore reach the target clients; and (ii) through their existing client base, extensive branch network, and their marketing capabilities, local banks are capable of reaching a large number of potential borrowers in the country.

5. In direct response to the estimated demand from Slovenian industrial and municipal sectors for the financing of water pollution reduction investments, the overall size of the Facility is proposed to be approximately US $ 54 million. This amount is based on the Demand Study completed by the Business Advisory Service (BAS) programme in Slovenia in July 2002 (see Annex 6). EBRD's total commitment for the CF will be approximately US $ 45 million, which will be blended with a US $ 9 million GEF grant. Under the Facility, EBRD will offer credit lines to commercial banks in Slovenia ("the local banks" or "FIs") which will then on-lend funds to private entities in the industrial sector, smaller municipalities and large livestock enterprises (the "sub-borrowers") for investment projects (the "sub-projects"). The Facility will be demand-driven and EBRD funds will be allocated to local banks on a "first come first serve" basis. Following the internal approval process at the EBRD, it will sign loan agreements with each participating local bank.

6. Funds will be available under the Facility for drawdown for 2 years from the signing of the loan agreement. During the two years local banks will draw down the funds in accordance with the terms agreed in the loan agreement and use the proceeds to finance eligible subprojects. There will be an interest charge on all amounts drawn down by the local banks whilst a commitment fee will be charged on the amounts committed but not drawn down. It is expected that EBRD loans to participating local banks will have a maturity of between 5 and 7 years with a 2 years grace period and equal repayments following the grace period.

7. The proceeds of the GEF grant funding would be used to:

(i) subsidise loans to local private companies and smaller municipalities to undertake water pollution reduction projects before the legislative deadlines, and projects that reduce emissions beyond national requirements and/or demonstrate innovative technologies to reach these objectives (see Annex 5); and

(ii) provide incentives to FIs to participate in this project. Incentives are required because the FIs are being asked to embark upon a new financing instrument and activities which they would not undertake purely on their own, and to compensate them for restricted use of funds and additional administrative requirements.

8. It is expected that the sub-borrowers will receive two thirds of the grant funding made available by the GEF whilst the participating banks will receive one third.

9. FIs would receive an administration fee for outstanding amounts on-lent to sub-borrowers, up to a maximum of five years, which will be deducted from the margin applied to the EBRD loan. In addition, banks would receive a one-time payment upon successful completion of the sub-project. It is anticipated that the mechanism of charges and incentives will positively encourage participating FIs to lend money from the facility.

10. The subsidy to borrowers would be awarded as a cash advance/lump sum payment upon successful completion of the sub-project, i.e. when the technology is in place. The subsidy would be released only when the borrower can demonstrate that pollution reduction objectives have been achieved and when the EBRD and the local bank have received a satisfactory monitoring report ("project completion test") from the Environmental Expert. An advantage of

this approach is the incentive created for the borrower to comply with the commitment of pollution reduction.

11. The approach will be finalised in negotiations between EBRD and FIs prior to project effectiveness.

12. In order to foster portfolio diversification, the availability of, and access to, the CF will be advertised through a number of different routes across different sectors. Potential marketing routes include participating FIs, TAM/BAS programme, trade associations, and the Chamber of Commerce. FIs will offer loans targeting different enterprises defined by size, sector, level of wastewater pollution, etc. Pricing of the CF will be determined by EBRD for individual local banks based on credit risk. The level of subsidy will be the same for each bank. All FIs will be required to meet and maintain EBRD's standard financial performance criteria and must comply with corporate governance and transparency standards. The FIs must be willing and able to follow sound banking principals and act in close co-operation with the Environmental Expert in order to lend efficiently to the right target.

13. Loans to FIs will be funded from EBRD's own resources. In selecting FIs, the EBRD will follow the same prudent and sound banking principles that have been used in the analysis and review of all projects in the financial sector of the EBRD's portfolio. FIs will have to demonstrate financial health, sustainability, quality and dynamic management, satisfactory credit policies and approval procedures and quality of clients. The appraisal criteria are broadly the following:

(i) financial criteria from the core basis, i.e. in terms of:

- audited accounts according to international accounting standards;
- sound credit policies and approval procedures;
- capitalisation, size and capability adequacy;
- asset quality and acceptable provisioning levels;
- profitability;
- portfolio diversification;
- funding constraints;
- good management track record;
- good corporate governance and integrity of main shareholders;
- commitment to manage and market the facility to make it a success.

(ii) other aspects, such as background and history, reputation, growth dynamics, private versus state ownership, relationship with local private enterprise sector, chances for occurrence of take-over, merger or acquisitions etc.

14. A summary of the participating banks' financial status and historic performance will be presented to EBRD's managers at the Operations Committee upon the discussion of the project by the Bank's management. Candidate banks have been identified and included in Attachment 1.

15. The Facility will disburse in tranches depending on the demand from the FIs. The relationship with each FI will be managed and monitored separately.

16. Due to the specific nature of the Facility, FIs will co-operate closely with the Environmental Expert selected by EBRD and responsible for the technical evaluation (screening) of the loan applications (see component 2).

17. The mechanics of the proposed Facility are the following:

– **Step 1:** Potential sub-projects can come to local banks through one of three mechanisms:

(i) through internal marketing by the local bank itself, sub-projects may emerge either from the local banks' existing or future portfolios. This has a clear advantage of an established relationship with the local bank, which will make the due diligence process simpler.

(ii) sub-projects may emerge from the TAM/BAS programme which has a large database of information on companies in Slovenia. Companies working with the TAM/BAS programme are encouraged to undertake a process and resource efficiency review and identify areas where improvements could be made. At some stage in this process, some companies may identify a need for investment in new equipment, and the TAM/BAS programme could direct such companies to local banks participating in the Facility.

(iii) sub-projects may come to local banks directly from companies or municipalities who have learned about the Facility through the marketing campaign to be undertaken by the project.

The TAM/BAS programme will provide advisory services to potential sub-borrowers interested in assistance in structuring project proposals which satisfy the GEF criteria and the information requirements of the Environmental Expert and the local banks. It will not be compulsory for a company wishing to apply for a loan to go through the TAM/BAS programme but if a company has difficulties in structuring an idea, TAM/BAS assistance will be available to it. Local banks will also be able to refer companies to the TAM/BAS programme for assistance.

– **Step 2:** All loan applications that come to the local banks will undergo an initial screening to ensure that they are eligible for inclusion in the Facility. This initial screening will consist of basic questions to establish that:

(i) the sub-project can be characterised as a water pollution reduction project;

(ii) the polluter is located in the Slovenian portion of the Danube River Basin, and;

(iii) in the case of smaller municipality wastewater treatment plants, the volume of emissions to be treated does not exceed 40,000 person equivalent.

- **Step 3:** If the project passes the initial screening stage, a more detailed due diligence will be undertaken by the local banks and by the Environmental Expert. The local banks will concentrate on the financial aspects of the sub-project to establish that the sub-borrower is a creditworthy company. The Environmental Expert will check the sub-project against the eligibility criteria as outlined in Annex 5 of this project brief. The Environmental Expert will provide their sign-off to the local bank within 15 working days of receiving the loan application. Sub-projects cannot be financed under the Facility without the sign-off of the Environmental Expert.

- **Step 4:** Having received the sign-off of the Environmental Expert and completed their own financial and legal due diligence, the local banks can proceed to final loan approval, including definition of the grant portion of the loan.

- **Step 5:** Having structured and approved the loan, the local bank disburses the funds (from its own resources) to the company to allow sub-project implementation. The company is responsible for the implementation of the sub-project for which the funds are provided.

- **Step 6:** Disbursements from EBRD to the local banks would be made once a local bank has disbursed an agreed number (tentatively 5) sub-loans. A disbursement request will be sent to EBRD to reimburse the local bank for those loans. Similarly, the incentive fee will be granted each year as a percentage of the amount disbursed to companies. These procedures intend to minimise the administrative burden for the local banks and the EBRD.

- **Step 7:** The grant portion of any disbursement would not be sent to the sub-borrower until completion of the sub-project. Completion is defined as the point where the equipment financed by the loan has been installed and confirmed to be operating within the required parameters. Sub-project completion will be confirmed by the Environmental Expert who will send this second sign-off to the local FI, EBRD, and the company concerned.

- **Step 8:** EBRD will disburse the GEF grant directly to the company.

- **Step 9:** Following sub-project completion, sub-borrowers will report on the environmental performance of sub-projects to the Environmental Expert as specified in the Environmental Monitoring Plan agreed for each sub-project at loan application. The Environmental Expert will maintain a database of monitoring information formed from the reports of the sub-borrowers. The Environmental Expert will also undertake a monitoring site visit to each sub-project, one year after sub-project completion, to verify the reported results.

Component 2. Technical Assistance
(Total: US$ 1,749,650; GEF US$ 907,650)

Sub-component 1. Environmental Expert Advice

18. Past experience has shown that in the case of environmental credit lines, it is important to "outsource" the environmental due diligence to technical experts, given that the FIs do not normally have the resources to provide an independent technical-environmental review of project proposals and undertake post-loan technical monitoring. Furthermore, as the Facility offers a subsidy element for both FIs and sub-borrowers, it is essential to delegate the checking of eligibility of sub-loans to an independent third party.

19. For the purpose of the CF, an Environmental Expert (which could be an individual or firm) will therefore be contracted to review loan applications. The Environmental Expert will be selected through a competitive tendering process in accordance with EBRD's public procurement rules. In order to safeguard the Environmental Expert's independence, the Expert will be contracted by EBRD. The contract will include an agreed budget for fees and reimbursable expenses. EBRD will disburse payments for services undertaken against invoices from the Expert.

20. Following the initial screening of a loan application by the FI, it will be the task of the Environmental Expert to review the application on behalf of the CF applying pre-developed GEF eligibility criteria and making an assessment on how the associated requirements of cost-effectiveness, provision of an environmental monitoring plan, and compliance with health, safety and environmental regulations, have been addressed (see Annex 5).

21. It would also be the same Environmental Expert's responsibility to confirm and sign-off on the completion of the sub-project (defined for the purposes of this project as the point of successful installation and confirmed operation of the loan-financed equipment) as and monitor its continued operation in accordance with the aforementioned environmental monitoring plan. The objective of loan-specific monitoring would be to ensure that compliance with GEF eligibility criteria was achieved and maintained during the life of the loan (LOL). Monitoring by the Environmental Expert would assess the degree of achievement of EU and national emission standards associated with the loan-supported technology purchased by the borrower. For purposes of the present project, monitoring would be limited to equipment conformity with technical specifications, successful implementation and operation, and maintenance over LOL. Estimated level of effort per sub-project is two site visits to confirm project completion and monitor continuing performance, respectively.

Table 1: Estimated Budget for Environmental Expert
(see details in Attachment 4)

Cost Category	Unit Costs (US$)	Quantity	Subtotal (US$)
Successful project applications			
- Project Review Standard	2,000 [1]	27	54,000
- Project Review Complex	3,250 [2]	9	29,250
- Completion Test	1,500 [3]	36	54,000
- Monitoring	1,500 [3]	36	54,000
Unsuccessful project applications			
- Project Review	2,000 [1]	36	72,000
Variable costs (per diem, local travel)			27,000
Sub-total			290,250
Contingency 5%			14,500
Total			**304,750**

[1, 2, 3] Estimated on the basis of respectively 4, 6.5 and 3 days with a daily consultancy rate of 500 USD.

Sub-component 2. Technical Assistance and Training

22. Not all firms have equal access to the technical resources and information to evaluate if an existing or new technology is in conformity with BAT criteria, appropriate for the size of the company, and/or is economically sustainable. Many potential sub-borrowers also have difficulties with formulating investment proposals and loan applications that would satisfy the CF criteria. The Technical Assistance and Training activities of the project will address the following needs identified during project preparation:

(i) lack of familiarity of potential sub-borrowers with the structure and procedures associated with the proposed credit facility;

(ii) sub-borrowers' lack of understanding of real investment needs and lack of ability to ensure cost-effectiveness in selection of the most appropriate technology;

(iii) the need for assistance in the process of loan application and formulation of technical proposals to ensure conformity with GEF, EU, and national environmental criteria.

23. For those companies that request it, support will be made available through individual consultations, to offer advice in identifying the appropriate technology suitable for the firm's production process while meeting the GEF eligibility criteria and, if needed, in formulating the loan application. These activities will be undertaken by the Turnaround Management (TAM)/Business Advisory Service (BAS) Programme which is already actively engaged in providing advisory services, including on environment, health and safety, to Slovenian companies. A description of these programmes and their activities is in Attachment 2.

Table 2: Estimated Budget for Technical Assistance and Training

Cost Category	Unit Costs (US$)	Quantity	Subtotal (US$)
BAS Intervention	6,000	70	420,000
TAM Intervention	60,000	2	120,000
Total GEF-financed			**540,000**
BAS Intervention - company contribution [1]	6,000	70	420,000
TAG operating costs Slovenia/year [1] - financed by other donors	211,000	2	422,000
Total financed from other sources			**842,000**

[1] See also Attachment 2

Sub-component 3: Marketing

24. Past experience derived from working with FIs and the private sector in the implementation of new financial modalities, such as the EBRD/GEF Credit Facility, have demonstrated that there are a number of barriers, at least initially, in the development of a loan portfolio. This is largely due to the lack of experience on both the part of the FIs and the borrowers with the new lending instrument exacerbated by an understandable reluctance to enter into a financial commitment without a full understanding of the respective responsibilities and lending conditions. Past experience has also demonstrated that much of the confusion and misunderstanding can lead to delays in disbursement though this can be addressed through providing quick and ready access to information to institutions in the loan chain. As a result, besides the regular marketing channels of participating banks, special marketing efforts will be incorporated in the project to extend its client base. The purpose of these activities will be to inform potential borrowers in the industrial, agricultural and municipal sector about the CF, and to put them into contact with participating banks and, if needed, with the TAM/BAS Programme experts providing technical assistance for loan applicants.

25. The activities will include:

(a) preparation and dissemination of a CF information sheet to potential clients through government authorities and interest groups such as Chamber of Commerce, and trade associations;

(b) organization of workshops for potential borrowers to inform them of the Facility, its benefits and mechanisms for making and application and receiving a loan;

(c) preparation of a simple standard environmental section for loan applications to the Facility, to be attached to participating banks' regular loan application formats, and its distribution to interested borrowers.

Table 3: Estimated Budget for Marketing

Cost Category	Unit Costs (US$)	Quantity	Subtotal (US$)
- Preparation of a Credit Facility information sheet	1	10,000	10,000
- Preparation of standardised loan sections	5,000	1	5,000
- Marketing workshops (preparation, organization, venue, etc.)	4,000	4	16,000
- Sub-total			31,000
- Contingency 5%			1,500
Total			**32,500**

Sub-component 4: Information dissemination (See also Annex 4)

26. Several complementary aims for information dissemination activities have been defined together with project stakeholders. First, the sub-component aims at informing a wide range of stakeholders and the general public on the project to promote public awareness and ensure transparency in the use of public funds. Second, its purpose is to promote the replication of the project concept - public/private partnership in financing pollution reduction - and the innovative technologies demonstrated by the project. Third, the component aims at establishing an interactive communication channel between the project and its stakeholders in order to consult stakeholders during project implementation, and to share experiences and lessons learned with them. By pursuing these objectives, the component will enhance the impacts, ownership and sustainability of project outcomes.

27. Information dissemination activities will make use of a range of different channels and means, primarily a website and e-mail box; other channels may include brochures, articles, presentations and discussions, and organisation of company visits. The implementation of these activities will be ensured by TAM/BAS programme, which already undertakes various information dissemination activities in Slovenia.

28. At the DRB level, the project will build on the linkages established during project preparation with the ICPDR and the UNDP/GEF Danube Regional Project (DRP) with the aim of promoting replication and sharing lessons learned with key DRB stakeholders throughout the region. Existing information channels, such as the ICPDR and DRP websites, as well as the DRP's communication and awareness-raising activities would provide a comprehensive framework for regional information dissemination on the project and ensure cross-learning and complementarity between GEF-funded projects.

29. At the international level, information dissemination will be promoted by EBRD who will share its experiences on the project through its established links with governments and financing institutions, and through co-operation fora such as the Project Preparation Committee of the Environmental Action Programme for Central and Eastern Europe, in order to promote replication.

Table 4: Estimated Budget for Information Dissemination

Cost Category	Unit Costs (US$)	Quantity	Subtotal (US$)
- Brochure printing and dissemination	1.5	10,000	15,000
- Round tables (preparation, reporting, organisation, etc)	4,500	2 [1]	9,000
- E-mail address for the project	-	1	-
- Website establishment	5,000	1	5,000
- Sub-total			29,000
- Contingency 5%			1,400
Total			**30,400**

[1] In the context of mid-term review and final evaluation.

C. PROJECT BUDGET AND DURATION

30. The period of disbursement of GEF funds under the project is estimated to cover four years starting January 2003. The Credit Facility is expected to disburse all sub-loans within two years from project start, i.e. during 2003-2004. The investments financed with the sub-loans are expected to be completed, and GEF grants disbursed to sub-borrowers, within four years from project start, i.e. during 2003-2006. The incentive fees to participating FIs will be disbursed during the same period. Activities under the sub-components of technical assistance/training and marketing are expected to be completed during the first two years of the project. Most of the activities under the sub-component on environmental expert advice will be completed by end-2006 although some monitoring activities will continue until the end of the maximum sub-loan payback period (2011). Similarly, most of the information dissemination activities will take place during the years 2003-2006.

Table 5: Estimated Project Costs for EBRD and GEF (millions of US$)[1]

Component	Indicative Costs		Financing Plan		
	Amount (millions US$)	Share of Total	EBRD	GEF	Total
Credit Facility	**54,000,000**	**98.35 %**	**45,000,000**	**9,000,000**	**54,000,000**
Technical Assistance	**907,650**	**1.65 %**	**0**	**907,650**	**907,650**
Total	**54,907,650**	**100.00 %**	**45,000,000**	**9,907,650**	**54,907,650**

[1] This does not take into account the TA contributions from other sources as set out in table 2 above.

ATTACHMENT 1: POTENTIAL PARTICIPATING BANKS

1. EBRD has an established relationship with the four largest banks in Slovenia. All these banks have a good track record, lending capability, financial performance and extensive branch network for which reason they will be approached to participate in the Facility. The EBRD monitors these banks continuously, and the performance to date has been good.

2. The list consists of the following banks:

Nova Ljubljanska Banka;
SKB Banka d.d.;
Nova Kreditna Banka Maribor d.d.; and
Banka Koper.

3. The EBRD will also contact other local banks, which would be eligible to participate in the Facility.

ATTACHMENT 2: DESCRIPTION OF THE TAM AND BAS PROGRAMMES

A. THE TURNAROUND MANAGEMENT PROGRAMME (TAM)

4. The Turnaround Management ("TAM") Programme was created in 1993 by UNDP, EU PHARE Programme and EBRD as a response to the pressing need for industrial restructuring in the transition countries of Central and Eastern Europe. TAM was designed to respond directly to enterprises' needs, avoiding many of the pitfalls of conventional enterprise assistance and placing a high level of conditionality on the performance of the enterprises themselves. Acknowledging the importance of small and medium-sized enterprises (SME) to economic growth, TAM was directed mainly towards SME, though the Programme has also supported some larger industries in special circumstances.

Objectives and Structure

5. TAM provides industry-specific advisors to potentially viable SME, enhancing the knowledge, confidence and capabilities of their management and assisting them in transition to market-driven economy. TAM projects improve cash flow, quality, productivity, design, and local and export marketing, and also enhance profitability. These actions create sustainable employment opportunities and considerably reinforce management skills in the regions concerned.

6. The Programme has a single "not for profit" management system, the Turnaround Management Group (TMG), hosted by EBRD. TMG coordinates an international network of 'industry-specific' senior advisors and technical experts who are able to "talk the industry language" with the enterprise management. This structure optimises the use of multiple donors' funds, allowing effective support of large numbers of enterprises with relatively simple procedures.

7. TAM assistance involves a high degree of conditionality on enterprise performance. Advice to unresponsive enterprises is stopped, reducing the exposure and potential waste of donor funds.

Activities and Implementation

8. A TAM project is carried out by a team of specialists lead by a Senior Industrial Advisor (SIA) selected from the same industry sector as the beneficiary company. The SIA are typically former chief executives and senior operational directors of industrial companies who, during their successful careers, have already confronted and solved many problems similar to those facing the beneficiary enterprises. They have a high level of commercial experience and in-depth knowledge in their sector, good interpersonal skills and the authority to influence top management in beneficiary companies.

9. Selection of TAM team members is based upon industry relevance and commercial experience. TAM projects are undertaken on a fixed, non-negotiable, fee rate basis, which ensures that team selection is based on technical rather than financial criteria.

10. TAM projects aim at helping the enterprise to understand its problems and to make the management and cultural changes necessary to create a profitable, stand-alone private enterprise.

11. In particular, the TAM team:

- builds the confidence of enterprise managers in their own ability to manage their businesses successfully in a market-driven economy and to adapt to the demands of international markets;
- assists enterprises to comply with the industrial legislation in their export markets and to develop sound environmental practices;
- helps management prepare a three-year business plan based on best international business practices to establish strategic direction and attract external investment and finance;
- advises how to update design and production capabilities to be comparable with those of international competitors;
- shows how the competitive position of the enterprise can be improved by specific and general marketing strategies;
- helps enterprises establish a network of international contacts with customers, suppliers, distributors, investors and foreign partners.

12. The changes are implemented by the enterprise's own management. The TAM team aims at transferring skills and know-how, and avoiding creating dependency.

13. For a typical enterprise, a TAM team normally undertakes a 60 workday plan over 12 to 18 months. The SIA provides at least 32 workdays of advice, usually including 6-8 on-site visits.

Results

14. TAM is currently active in 26 countries. Grant funding of more than Euro 62 million has been provided by 27 donors, enabling the Programme to undertake appr. 733 projects. Aggregate turnover for enterprises assisted by TAM amounts to US $ 16.9 billion, and their total staff to 677,000 people. TAM has a success rate of circa 80% in transforming enterprises to profitability. It is considered to achieve sustainable impacts through a highly cost-effective delivery mechanism.

15. For more information, see http://www.ebrd.com/about/index.htm - Apply for financing - Special Programmes – TAM Programme.

B. THE BUSINESS ADVISORY SERVICE (BAS)

16. The first Business Advisory Service (BAS) Programme was established in the Baltic States in 1995 through the Baltic Technical Assistance Special Fund (BTASF), created by EBRD and the Nordic countries. The main objective of the Baltic BAS is to promote the development of SME in the Baltic's through providing them with practical business advice on clearly-defined projects, with rapid pay-back periods.

17. The Baltic Programme has operated successfully for 7 years, and is now being replicated in other CEE countries. Funding for BAS programme has been provided by a wide variety of donors – BTASF, European Union, United Kingdom (DFID), Japan, Central European Initiative (CEI), Sweden, Finland, Norway, Denmark, Germany, Austria, Switzerland, and Balkan Region Special Fund.

Objectives and Structure

18. BAS co-funds specific consultancy projects with micro, small and medium-sized enterprises, improving their quality and competitiveness. It introduces management and quality systems in enterprises, improving their management skills and profitability, creating sustainable employment and facilitating the transition to market economy. BAS focuses on practical inputs with clear objectives, providing benefits with a relatively short 'pay-back' time. Assisted enterprises typically recoup costs in about one year.

19. Using predominantly local consultants, the Programme also serves to increase the capacity and competence of the local consultancy industry so that they can provide for an increasing proportion of enterprise consultancy needs.

20. Like TAM (see above), BAS is managed by the Turnaround Management Group (TMG), hosted in EBRD. This single "not for profit" management system aims to ensuring optimal use of resources and effective support of large numbers of enterprises with relatively simple procedures.

21. BAS relies largely (>75%) upon local, "BAS accredited" consultants to deliver services. In certain cases, where local consultants do not have the capacity to undertake an assignment, foreign consultants may be brought in to complement their knowledge. The Programme facilitates and monitors the consultancy work undertaken.

Activities and Implementation

22. To initiate a BAS project, a Grant Agreement is agreed between BAS and the CEO of an enterprise. This agreement commits the BAS programme to providing up to 50% of the costs of business support to the enterprise in question. BAS may support micro, small and medium-sized enterprises although certain sectors are ineligible for assistance (tobacco production, gambling or financial services companies).

23. Typical BAS assignments include upgrading management information systems, accounting systems and financial information systems, cost and engineering studies, restructuring and reorganisation, market research, planning and development, quality management systems and

certification, proposals for finance, business partner and investor search, and preparing business plans and strategic development plans.

24. Each project is tailored to the specific needs of the enterprise. BAS does not fund any hardware or equipment requirements.

Results

25. BAS operates in the Baltic States, Russia (St Petersburg and Samara), Southeast Europe (Slovenia, Croatia, Bulgaria, Bosnia & Herzegovina, FYR Macedonia, Montenegro), Central Asia (Kazakhstan and Uzbekistan) and South Caucasus (Georgia and Azerbaijan). Its total funding since 1995 is Euro 26 million. As of 30 June 2002, BAS had initiated 2,049 projects of which 1,572 have been successfully completed. Its cost-effectiveness in changing business culture and creating a sustainable impact in the micro and SME sector is widely recognised.

26. In Slovenia, between January 2001 and June 2002, 124 projects were undertaken of which 38 successfully completed. Total funds committed for Slovenia are EUR 1.7 million.

Slovenian BAS Programme Running Expenses for 12 Months		
		EUR
Opex	2,500 per month	30,000
Rent	3,222 per quarter	16,000
Contracts	Programme Director	50,000
	National Programme Director, local	60,000
	Project Officer, local	40,000
	Assistant, local	15,000
Total Programme Operating Expenses		**211,000**

27. For more information, see http://www.bas-slo.net/indexEng.htm

ATTACHMENT 3: ASSUMPTIONS USED TO ESTIMATE THE NUMBER OF LOANS UNDER THE FACILITY

- Total Facility size: US$ 45 million;
- Maximum loan size under the Facility: 10% of total Facility size, i.e. US$ 4.5 million;
- For the purposes of this estimate only, a minimum loan size of US$ 100,000 (no minimum loan size will be established for the Facility);
- On the basis of experience from other SME credit facilities, it is assumed that there will be a larger number of smaller loans and only one, or possibly two, loans up at the maximum loan limit;
- The BAS programme can manage at maximum 10 projects/month. It is estimated that, of this total, 3 projects/month may be environmental projects seeking funding under the Facility. On this basis, the number of loan applications to the CF is estimated at 36 per year and at 72 over the two years life of the Facility. Of those, it is assumed that 50%, i.e. appr. 36 projects, will pass the eligibility review of the Facility and thus receive the loan.
- TAM projects are much larger than BAS projects and require more time. It is assumed that TAM-type projects may represent possibly two projects under Facility.

28. Table 1 below presents a summary of projects listed in the Demand Study produced by the Slovenian BAS programme (see Annex 6), and gives indications on the likely distribution of loans under the Facility.

Table 1: Summary of Projects Listed in the Demand Study

Investment size (US$)	Number of projects
100,000 –499,000	12
500,000 – 999,000	11
1,000,000 – 1,999,000	8
2,000,000 – 2,999,000	5
3,000,000 – 3,999,000	1
4,000,000 – 5,000,000	2
Total	**39**

29. Based on the above estimations, the likely structure of the Facility is presented in table 2 below.

Table 2: Likely Structure of the Facility

Investment size (US$)	Number of loans	Total amount [1]
100,000 – 499,000	14	3,500,000
500,000 – 999,000	10	7,500,000
1,000,000 – 1,999,000	6	9,000,000
2,000,000 – 2,999,000	4	15,000,000
3,000,000 – 3,999,000	1	3,500,000
4,000,000 – 4,500,000	1	4,250,000
Total	**36**	**42,750,000**

[1] Assuming mid-point of investment size category as loan size.

ATTACHMENT 4: DETAILED COST ESTIMATE OF ENVIRONMENTAL EXPERT

	Time (days)	Estimated Cost (US$)	Costs Standard	Costs Complex	Total
EFFORT PER SUB-PROJECT					
Sub-project approval (standard – 75% of projects)					
Review proposal	0.5	250			
Prepare site visit	0.5	250			
Conduct site visit	2	1,000			
Project report	1	500			
Sub-total	4	2,000	2,000		
Sub-project approval (complex – 25% of projects)					
Review proposal	2	1,000			
Prepare site visit	0.5	250			
Conduct site visit	3	1,500			
Project report	1	500			
Sub-total	6.5	3,250		3,250	
Project completion (all projects)					
Prepare site visit	0.5	250			
Conduct site visit	2	1,000			
Monitoring report	0.5	250			
Sub-total	3	1,500	1,500	1,500	
Monitoring					
Prepare site visit	0.5	250			
Conduct site visit	2	1,000			
Monitoring report	0.5	250			
Sub-total	3	1,500	1500	1,500	
Total per project	**10-12.5**		**5,000**	**6,250**	
OVERALL EFFORT					
27 standard projects assessed and considered eligible	270	500	135,000		
27 standard projects assessed but considered ineligible	108	500	54,000		
9 complex projects assessed and considered eligible	112.5	500		56,250	
9 complex projects assessed but considered ineligible	36	500		18,000	
Sub-total			189,000	74,250	263,250
Variable costs (per diems [EU per diem for Slovenia], local travel costs [cost per km petrol]) etc.					27,000
Contingency 5%					14,500
TOTAL COSTS					**304,750**

GEF/SLOVENIA

REDUCING WATER POLLUTION IN THE DANUBE BASIN

ANNEX 3

INCREMENTAL COST ANALYSIS

ANNEX 3

INCREMENTAL COST ANALYSIS

A. INTRODUCTION

1. The European Bank for Reconstruction and Development (EBRD) in cooperation with the Global Environment Facility (GEF) plans to support the National Pollution Reduction Project in Slovenia. The objective of the project is to demonstrate the use of financial intermediaries in achieving the reduction of industrial, municipal, and agricultural point source water pollution in the country. This will be accomplished through the creation of a partly subsidised credit line facility (the "Credit Facility") to local financial institutions (FI) in Slovenia with the aim of financing investments leading to the reduction of water pollution in the Danube river basin (DRB).

B. CONCEPTUAL APPROACH

2. This document presents the Incremental Cost Analysis (ICA) associated with the project which consists of comparing the costs and benefits associated with the baseline scenario ("business as usual") with those derived from the GEF Alternative. Only costs able to generate incremental global environmental benefits were considered for GEF funding. The baseline consists of a number of relevant on-going activities, which address the reduction of nutrients and other water pollutants affecting trans-boundary water bodies with sources in Slovenia.

3. The GEF Alternative complements the baseline and is based on increasing the supply of "soft" funding to private firms and municipalities to support water pollution reduction investments. The Alternative mainly supports complementary activities and will contribute to further reduce trans-boundary pollution originating from nutrient and other priority substance sources in the DRB. Global environmental benefits are already being generated by the baseline but in limited quantities and at a slower pace than desired. The additional reduction of nutrient pollution brought about by the Alternative will be achieved through supporting: (i) the accelerated adoption of pollution reduction actions required by the relevant EU/national legislation; and/or (ii) actions that reduce emissions beyond the standards required by relevant EU/national legislation. In addition, the use of GEF funding to support public-private sector partnerships in the International Waters (IW) Focal Area (FA) represents *per se* a potential benefit of the project. This approach is expected to lead to a better allocation of resources and logistic efficiency. It should be noted that the increased adoption of new technologies for water pollution reduction likely to be derived from the project represents the only substitution activity in the GEF Alternative. These new technologies will generate benefits that fall under the same categories of those mentioned above (i.e. faster and/or greater achievement of water pollution reduction as compared to relevant national and EU requirements) but in a more cost effective way. This should be considered as an economic benefit. In addition, further replication benefits are expected to be generated by the demonstration of these technologies.

4. The description of the GEF activities is presented in the section describing the GEF Alternative and the methodology used to estimate its costs is presented in the baseline description presented below. The ICA covers the period 2003-06. For the purposes of the ICA, the duration of the GEF project is defined as the period of disbursement of GEF funds, and is expected to cover four years starting January 2003 (see Annex 2).

C. BASELINE SCENARIO

5. The baseline consists of a number of relevant activities which support the reduction of nutrient and other water pollution in Slovenia for the period covering 2003 to 2006. In the accompanying ICA matrix (Matrix 1), these have been grouped into two categories which reflect the Alternative's components, namely infrastructure investment funding (the Credit Facility) and technical assistance/information dissemination. Relevant baseline activities were identified from the following programs/projects:

- European Union supported initiatives consisting of: Pre-accession Assistance for Central and Eastern European Countries (PHARE) Cross Border Co-operation (CBC) providing co-financing for water and nature conservation activities, the PHARE National (PN) providing for environmental institutional building, the Large Scale Infrastructure Facility (LSIF) for waste and wastewater sectors investments, and the Instrument for Structural Policies for Pre-Accession (ISPA) which is supporting the implementation of relevant EU legislation in the transport and environmental sectors;

- Ekofund is a State-owned, non-profit oriented financial institution, which provides loans for environmental protection investments in Slovenia at favourable interest rates. Ekofund lending is oriented by the National Environment Protection Act (EPA) priorities. Water pollution is one of its main fields of operation;

- Private firms' own funds targeting water pollution reduction;

- Public (State, municipalities, wastewater tax revenues) funds used for infrastructure investments for water pollution reduction;

- The GEF/UNDP Strategic Partnership on the Danube/Black Sea Basin (Danube Regional Project – DRP, 2001-2006), a regional project aimed at reinforcing the capacities of the participating countries in developing effective mechanisms for the protection of international waters and sustainable management of natural resources and biodiversity. A breakdown of these costs is provided in the ICPDR matrix (see Attachment 2 in the Main Report).

- The GEF/World Bank Black Sea/Danube Strategic Partnership - Investment Fund for Nutrient Reduction which supports nutrient reduction investments in the restoration and creation of wetlands, reform or improvement of agriculture and land management practices and wastewater treatment in communities and industries. Funding will be mostly targeted towards improvements in poorer countries in the Danube river basin. Although Slovenia is not part of this initiative, it has been included in the baseline, as the country will benefit from the demonstration effect of activities carried out in other countries. Nevertheless, no cost has been included in the baseline against these "positive externality" benefits.

6. The specific contributions of these initiatives to the baseline cost have been estimated according to the methodology described below.

- EU PHARE contributions were projected over the years 2003-2005 based on disbursement data provided by the CBC, PN and LSIF for the period 1994-2000. Only the average of 1999 and 2000 disbursements were used for this projection, as LSIF projects were not implemented before 1999. PHARE projections do not cover the year 2006 since the programme is likely to be discontinued (with a transitory period) after Slovenia's EU accession, expected to take place in January 2004;

- EU ISPA contribution estimates were based on the financing breakdown of priority ISPA investments for the period 2000-2006 contained in the "National ISPA Strategy of Slovenia, 1999." and converted to current US$. Only investments from 2003 were taken into consideration. ISPA funds were projected for the period 2003-2006 since ISPA is expected to be replaced by EU cohesion funds upon Slovenia's EU accession;

- Ekofund contribution is based on an Ekofund communication containing loan disbursements over the period 1996-2000. Average loan disbursements over the last six years (1996-2001) in current SIT were converted to current US$ and projected out to 2006 assuming a constant disbursement pattern;

- State, municipal and wastewater tax fund estimates are based on the financing plan of the first phase (2003-2006) of the National Programme for the Construction of WWTP, adopted by MOEPP in 2001. The estimates were adjusted on the basis of assumptions on the municipalities' actual investment capacities, made in the Demand study undertaken for the preparation of this project (see Annex 6, chapter 3.1);

- Private firms' own funds have been assumed to represent 40% of total investment needs of these companies to comply with relevant EU/national legislation (this percentage is based on the estimated average of the firms' own contributions to Ekofund-supported projects for industry and agriculture). The estimate of private firms' total investment needs is derived from the Demand study undertaken for the preparation of this project (see Annex 6) in which these investment needs were estimated at Euro 384 million during the project period;

- The DRP contribution has been estimated by dividing the cost of the relevant components by the number of countries participating in the project (11).

Global Benefits

7. The baseline is currently generating global environmental benefits in the form of reduction in trans-boundary water pollution in the DRB. Other global environmental benefits include improving the general ecological status of the river and some of its upper tributaries, and the conservation of globally important biodiversity in Danubian ecosystems, in particular wetlands. However, the extent of these benefits is limited by constraints on investment funding.

Domestic Benefits

8. These include the conservation of river and wetland ecosystems, the protection of groundwater, the enhanced compliance with environmental legislation which in time will contribute to the State being able to enforce the highest international environmental standards, and greater willingness and capacities of Slovenian companies and municipalities to undertake environmental investments.

9. In addition**,** socio-economic benefits such as reduced water treatment costs for municipalities and firms, reduced costs of compliance with national/EU environmental standards, enhanced public health (through cleaner drinking and bathing waters), reduced health costs, and improved quality of life in neighbouring communities should also accrue over time.

D. GEF ALTERNATIVE

10. The GEF Alternative includes two complementary activities: (i) the creation of the Credit Facility (jointly funded by EBRD and GEF); (ii) technical assistance, including environmental expert advice to participating FIs; technical assistance and training for potential sub-borrowers; marketing; and information dissemination. For the Credit Facility, GEF funding will be on the order of US$ 9 million which will be blended into resources provided by EBRD (US$ 45 million). The technical assistance component, with total costs of US$ 1.7 million, will be financed by GEF (US$ 0.885 million), multi-donor Business Advisory Service (BAS) Programme (US$ 0.422 million) and the beneficiary companies (US$ 0.420 million). The Credit Facility will be complementary to existing environmental funding sources. It will be on-lent to commercial banks, which in turn will market these “soft funds” through their own network as well as other channels such as the Slovenian Chamber of Commerce and the MOEPP. A Demand study for water pollution reduction investments carried out during project preparation (see Annex 6) indicated that the Credit Facility was unlikely to significantly reduce demand for environmental grants and loans from specialised loan facilities (Ekofund) or regional/national public entities such as EU.

Global Benefits

11. In addition to the global environmental benefits generated by the baseline, the GEF Alternative will achieve additional reductions in nutrients and priority substances contamination in the DRB through: (i) accelerating compliance with national standards before the deadline(s) established in legislation; and/or (ii) promoting emission reductions beyond national/EU requirements; and/or (iii) demonstrating innovative nutrient pollution reduction technologies with replication potential in the DRB. In addition, greenhouse gas emissions reduction through promoting the use of waste to produce renewable energy (e.g. biogas production in livestock farms) and biodiversity conservation benefits may also result from the project.

Domestic Benefits

12. Additional (as compared with the baseline) domestic benefits associated with larger emission reductions as well as more cost-effective ways of reducing water pollution and complying with national and EU legislation through the adoption of new technologies will accrue to municipalities and firms and society as a whole. The value added generated by the services

needed for the adoption and use of these new technologies as well as the strengthened role of local FIs in the Slovenian economy should be considered as economic benefits.

13. The main environmental and socio-economic benefits as well as the baseline and GEF alternative costs are presented in the Incremental Cost Matrix below.

Components		Baseline	Alternative	Increments
A. Credit Facility				
	Global Environmental Benefits	Limited reduction in trans-boundary nutrient-based water pollution in the Danube river basin. Other limited global environmental benefits will include improving the status or the Danube River, its tributaries in the Slovenian portion of the basin and the conservation of globally important biodiversity in Danubian ecosystems, in particular wetlands.	In addition to the global benefits generated by the baseline, the alternative would include (i) the compliance with national standards before the deadline(s) established in legislation and corresponding licences (minimum 1 year); and (ii) nutrient pollution reduction beyond national standards or polluter-specific effluent conditions established in legislation and corresponding licences.	
	Domestic Benefits	Conservation of river and wetland ecosystems, protection of groundwater, the enhanced compliance with environmental legislation which will contribute to its updating and enforcement to respond to highest international environmental standards, greater willingness and capacities of Slovenian companies and municipalities to undertake environmental investments. In addition, socio-economic benefits such as reduced water treatment costs for municipalities and firms, reduced costs of compliance with national/EU environmental standards, enhanced public health (through cleaner drinking and bathing waters), reduced health costs, improved quality of life in neighbouring communities and strengthened role of private local FIs in the Slovenian economy should also be accounted for.	Additional (as compared to the baseline) domestic benefits associated with more cost-effective ways of reducing water pollution through the adoption of new technologies. Value added generated by the services needed for the adoption and use of new technologies.	
Costs for 2003-2006 (million current US$) 1/				
	GEF	*0.0*	*9.0*	*9.0*
	EBRD Credit Facility	*0.0*	*45.0*	*45.0*
	EU			
	PHARE 2/	*63.2*	*63.2*	*0.0*
	ISPA 3/	*16.9*	*16.9*	*0.0*
	Ekofund subsidised loans 4/	*6.6*	*6.6*	*0.0*
	Public funds 5/	*185.8*	*185.8*	*0.0*
	Private firm funds 6/	*153.6*	*153.6*	*0.0*
	Subtotal	***426.1***	***480.1***	***54.0***

Components		Baseline	Alternative	Increments
B. Technical Assistance				
	Global Environmental Benefits	Limited capacity to manage trans-boundary ordinary and emergency water pollution situations. Limited contribution to building public awareness of globally relevant trans-boundary nutrient pollution reduction.	Increased institutional capacity to address and achieve globally significant water pollution reductions. Increased contribution to building public awareness of globally relevant trans-boundary nutrient pollution reduction.	
	Domestic Benefits	Limited knowledge and capacity to use BAT for water pollution reduction; strengthened NGOs for water pollution reduction activities; improved public structures and mechanisms for water pollution reduction; improved cost recovery for water tariffs for nutrient reduction; improved system of water pollution charges and incentives. Limited environmental public awareness through community based small grant system, mass media campaigns and publication of basin-wide documents	More efficient use of subsidised funds for water pollution reduction as compared to the baseline; more reliable system of procurement of water pollution reduction equipment and improved monitoring of environmental performance of water pollution reduction investments. Contributing to building public awareness on domestic nutrient pollution reduction.	
Costs for 2003-2006 (million current US$) 1/				
	GEF	*0*	*0.885*	*0.885*
	BAS Programme 7/	*0*	*0.422*	*0.422*
	Beneficiary companies 8/	*0*	*0.420*	*0.420*
	UNDP/GEF Danube Regional Project 9/			
	- *Stakeholders capacity building*	*0.103*	*0.103*	*0*
	- *Institutional strengthening*	*0.080*	*0.080*	*0*
	- *Policy development & implementation*	*0.315*	*0.315*	*0*
	- *Awareness raising*	*0.309*	*0.309*	*0*
	- *Pilot projects on non-point sources*	*0.074*	*0.074*	*0*
	- *Information dissemination*	*0.063*	*0.063*	
	- *Monitoring and studies*	*0.102*	*0.102*	*0*
	Subtotal	***1.0***	***2.8***	***1.7***
Total Costs for 2003-2006 (million current US$) 1/		***427.1***	***482.9***	***55.7***

1/ Physical and price contingencies are included.

2/ Based on disbursement data provided by the EU Delegation for PHARE Cross Border Cooperation (CBC), PHARE National (PN) and Large-Scale infrastructure Facility (LSIF) for 1994-2000. Only the average of 1999 and 2000 disbursements were used for projection as LSIF projects were not implemented before 1999. ISPA funds were projected for the period 2003-2006 since ISPA is expected to be replaced by EU cohesion funds upon Slovenia's EU accession. For PHARE, funds were projected for the years 2003-2005 since the programme is likely to be discontinued (with a transitory period) after Slovenia's accession to EU, expected to take place in January 2004.

3/ Based on the financing breakdown of priority ISPA investments for 2000-2006 contained in the "National ISPA Strategy of Slovenia, 1999, table 7.3.1. converted to current US$.

4/ Based on Ekofund communication dated March 2002 containing loan disbursements over 1996-2000. Average loan disbursements of the last six years (1996-2001) in current SIT were converted to current US$.

5/ Based on the financing plan of the first phase of the Slovenian National Programme for the Construction of WWTP (2003-2006). The total costs of the investment programme in the Slovenian portion of the DRB are estimated at Euro 383 million of which more than half are expected to be covered by public sources (40% by water pollution tax, 3.5% by State budget and 10% by municipal sources). Given the limited investment capacities of Slovenian municipalities, the Demand study undertaken during the preparation of this project (see Annex 6) estimates that municipalities will be able to cover only 5% of total costs, which will bring the total share of public sources to 48,5% of the investment costs. The figures were converted to US$ with an estimated 1:1 exchange rate.

6/ Representing 40% (this percentage is based on average own funds contribution in Ekofund projects contained in a specific communication from Ekofund dated March 2002) of the total industry and agriculture investment needs estimated at US$ 384 million (derived from the Demand study carried out for the formulation of this project). The figures were converted to US$ with an estimated 1:1 exchange rate.

7/ Under the GEF Alternative, technical assistance to beneficiary companies will be provided by multi-donor financed Business Advisory Service (BAS) Programme in Slovenia. The regular operating costs of the BAS Programme, financed by other donors, are estimated at Euro 211,000/year. During the first 2 years of the GEF project, i.e. the period when the EBRD/GEFCredit Facility will be available on the market, a large share of BAS activities will be related to the TA component of the GEF project (see Annex 2). BAS regular operating costs for these years are therefore counted as co-financing for the GEF Alternative. BAS will continue to support GEF project activities beyond the first 2 years but the level of effort will be considerably lower. BAS operating costs for years beyond 2004 are thus not considered as co-financing. The figures were converted to US$ with an estimated 1:1 exchange rate.

8/ BAS requires that the beneficiary company covers minimum 50% of the costs of BAS intervention. Total costs of one BAS intervention under the project are estimated at US$ 12,000/company. Total number of TA requests to BAS under the project is estimated at 70.

9/ DRP is a regional project. The portion of cost relevant to Slovenia has been derived by dividing by the number of participating countries.

GEF/SLOVENIA

REDUCING WATER POLLUTION IN THE DANUBE BASIN

ANNEX 4

PUBLIC INVOLVEMENT

ANNEX 4

PUBLIC INVOLVEMENT

A. INTRODUCTION

1. This annex presents the public involvement strategy for the project, prepared with the support of Regional Environmental Centre for Central and Eastern Europe - Country Office Slovenia (REC Slovenia) and the minutes of a public involvement workshop held during project preparation (Ljubljana 17 June 2002), prepared by Ms Milena Marega, Director, REC Slovenia. The workshop minutes together with workshop presentations have also been published on the REC Slovenia website at http://www.rec-lj.si/FAO/default.html. A list of participants to the workshop is attached (Attachment 1).

B. PUBLIC INVOLVEMENT STRATEGY

2. The preparation of the public involvement strategy for the planned EBRD/GEF National Pollution Reduction Project in Slovenia has followed the principles of the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), Slovenian national legislation, which increasingly reflects EU standards, as well as the guidelines on public involvement in GEF projects (GEF/C.7/6). The strategy has also benefited from lessons learned in the recently finalised project on NGO participation in the Danube River Basin Management Plans, implemented by REC Slovenia, as well as from other experiences on public participation in environmental decision-making that REC Slovenia has gained during the implementation of the Strategic Environmental Assessment of the Preliminary National Development Programme 2000-2001 and other related projects.

3. The need for the present strategy is supported by several factors. Environmental awareness in Slovenia is being strengthened, and the Slovene public is increasingly interested in environmental pollution from industrial and other sources. The public, represented inter alia by environmental NGOs, interest groups and concerned individuals, require more reliable and complete information on environmental pollution as well as more effective and transparent environmental enforcement and monitoring. In addition, until today, public involvement in environmental decision-making in Slovenia has been limited, in particular in larger projects. Finally, public involvement in environmental impact assessment, required by the Slovene law, is often not used effectively as a public participation mechanism.

4. Reflecting the above-mentioned needs, the proposed strategy is based on the principles of transparency and openness, and the avoidance of unrealistic expectations as well as of any activities that might be perceived as manipulation.

C. MAIN GOALS

5. The main goals of public involvement in the design, implementation and evaluation of the planned project are the following:

(i) to inform the public about the objectives, activities, methods, and expected results and impacts of the project. This will contribute to the following:

- promoting public awareness on the project and ensuring transparency in the use of public funds for the project;

- promoting replication of project concept in Slovenia and in other countries of the Danube River Basin;

- disseminating information on innovative technologies demonstrated by the project;

(ii) to establish interactive communication channels with stakeholders to solicit their opinions and cooperation. This will aim specifically at:

- sharing experiences and lessons learned with the main stakeholders;

- gaining suggestions and additional data that can be used for improvement of the project;

- making use of skills, experiences and knowledge of different groups of stakeholders;

- identifying potential partners for implementation and evaluation of the project.

(iii) to enhance ownership and sustainability of the project results.

D. TARGETED AUDIENCE

6. The target audiences of the public involvement strategy are the following (See also sub-section on target population and stakeholders in Section 3 of the Project Brief):

- participating local banks and other public and private financial institutions in Slovenia. These include Slovenian commercial banks, and foreign banks present in the country as well as the Slovene Ekofund;

- potential borrowers from the industrial, agricultural and municipal sectors;

- public agencies, in particular MOEPP and other national environmental authorities as well as the Ministry of Economy, Ministry of Finance, National Agency for Regional Development and Regional Development Agencies in Slovenia;

- national interest groups, in particular the Chamber of Commerce, Chamber of Agriculture and Forestry, trade associations, Association of Slovenian Municipalities and Towns, Farmer's union, and Slovenian Association of Banks;

- environmental technology firms, including both manufacturers of water pollution reduction equipment and technologies and companies which provide related consultancy services;

- regional and international agencies, including ICPDR, UNDP DRP, WB IF, and EU, in particular EU Commission Delegation in Slovenia;

- regional and national NGOs, in particular those grouped under the Danube Environmental Forum; and

- general public in Slovenia and in other countries of the DRB.

E. STAKEHOLDER INFORMATION

7. Information to be made available to stakeholders will be as follows (see also the description of component 3 in Annex 2):

(i) project-related:
- project context: GEF, ICPDR, EU and national policies;
- project concept and structure, main goals and objectives, methods;
- project activities;
- project results and impacts;
- experiences, best practices and lessons learned from the project and other similar projects in Slovenia;
- innovative technologies;
- tools for, possibilities of, and progress in, replication of the project in Slovenia and other countries of the Danube River Basin (including information useful for concept replication such as training modules, marketing strategy outlines, etc.).

(ii) public involvement strategy:
- approach, schedule, deadlines and methods of public involvement in the project.

8. Channels for information dissemination may include:

- project website and e-mail box;
- brochures;
- articles in specialised/generalist journals and periodicals;
- press releases;
- presentations and discussions;
- company visits.

9. At the national level, BAS programme (see Attachment 2 to Annex 2) will have the main responsibility for information dissemination activities. At the DRB level, information dissemination activities will be coordinated with ICPDR and UNDP DRP activities in the same field. EBRD headquarters in London and local office in Ljubljana will promote the project through their contacts and information activities with local FIs, IFIs and potential borrowers. Information will also be available in regular public information 'corners/points' of Slovenian institutions such as Europe Centre, Ministry of Environment and Spatial Planning, Ministry of Economy, National Agency for Regional Development, Regional Development Agencies and other authorities at regional and local level, Chamber of Commerce, Chamber of Agriculture and Forestry, Association of Municipalities and Towns in Slovenia, and Jožef Stefan Institut.

F. INTERACTIVE COMMUNICATION, CONSULTATION AND STAKEHOLDER PARTICIPATION

10. In addition to general dissemination of information, project stakeholders will be provided with opportunities to gain information about the project and participate in its design, implementation and evaluation. Different techniques will be used, as described in the below table:

Project activity	Public Involvement
I. Project Design	
Preparation of draft project proposal, including identification of environmental eligibility criteria	Workshop to inform the public and receive their comments and suggestions on project design and implementation plans. *Before the workshop:* General and individual invitations; Information on the draft project concept and on the public involvement strategy; *After the workshop:* Preparation of draft workshop report and its publication on REC Slovenia website for possible comments; Finalisation of the report and its dissemination through REC Slovenia website.
Finalisation of project proposal	Information to workshop participants and other key stakeholders on the publication of the Project Brief on GEF website. Invitation to comment on the Project Brief before its submission for GEF CEO endorsement and EBRD Board approval.
II. Project Implementation	
Project launch	Preparation and distribution of an information sheet and a brochure. Press release. Project website establishment. Publication of the final project document on the website. Marketing campaign to reach potential clients.
Selection of final beneficiaries	Competitive public tender for the selection of the Environmental Expert. Announcement of the results on Project website; Documentation of the decision-making process: eligibility check sheet (format to be developed) to be filled in by the local FI and the Environmental Expert for each application; Information to rejected applicants on the reasons for rejection; Periodic announcement of names of final beneficiaries on web; Information dissemination through articles, press releases, and other information channels.
Midterm review	Participatory round table to report on project implementation, receive broader feedback from stakeholders, and discuss on possible modifications in project design; Publication of midterm review report, and related public comments, on Project web-site; Information dissemination through articles, press releases, and other information channels.
III. Project Evaluation	
Final evaluation	Participatory round table to gather stakeholder comments and discuss lessons learned; Publication of evaluation report, and related public comments, on Project web-site.
Final project report with integrated report on public involvement	Dissemination of final project report through all information channels; Public presentation event of final project report.

G. CONSIDERATION OF PUBLIC COMMENTS

11. Public comments will be treated in a transparent manner. All written comments will be forwarded for consideration to the relevant project implementation partner(s) (local FI, EBRD, GEF, TAM/BAS, Environmental Expert). The comments will be subsequently made available to the public on the project website, together with a description of how they have been considered in the project design, implementation or evaluation, and with appropriate explanation from the partner in question.

H. REPORT ON THE EFFECTIVENESS OF PUBLIC INVOLVEMENT

12. In the context of the final evaluation, the effectiveness and impacts of public involvement through the whole process will be evaluated and results presented in the final project report. This assessment will consider, inter alia, participation and contribution of various stakeholder groups, general awareness-raising, experience-sharing, establishment of private-public partnership, commitment, ownership and satisfaction with project results. Best practices and lessons learned will be identified and incorporated into design of future projects.

I. REPORT ON PUBLIC INVOLVEMENT WORKSHOP

Location and date

13. A stakeholder workshop on the planned EBRD/GEF Slovenia Water Pollution Reduction project was organised in Ljubljana on 17 June 2002 by FAO in cooperation with the Regional Environmental Centre for Central and Eastern Europe - Country Office Slovenia (REC Slovenia). The workshop was held in the premises of the Slovenian Chamber of Commerce and Industry. Invitations were sent by REC Slovenia to all major institutions and individuals representing all stakeholder groups: local FI, potential borrowers in the municipal, industrial and agricultural sector, government institutions, EC Delegation, regional development agencies, interest groups and organisations, other donors, environmental consultancy companies, as well as NGOs, individual experts and media.

14. Registered participants were provided with a short project description and a workshop invitation outlining the goals of the workshop. The workshop aimed at: (i) informing potential beneficiaries and other stakeholders about the project and its status of preparation; (ii) discussing the project objectives and approaches with the stakeholders to reflect their needs and priorities in the project design; (iii) getting stakeholders feedback on project design, planned implementation and evaluation, as well as lessons learned from similar projects in Slovenia; (iv) identifying potential interested beneficiaries, other possible partners for project implementation and target audiences for future information dissemination;

15. Besides project formulation team members the workshop was attended by 39 participants, representing all target groups:

- 13 enterprise representatives
- 5 consultancy organisation representatives
- 8 municipality representatives
- 3 environmental NGO representatives
- 6 bank representatives
- 2 ministry representatives
- 1 Ekofund representative
- 1 Delegation of the European Commission in Slovenia representative

Workshop Proceedings

16. The workshop was opened by Ms Milena Marega, Director of REC Slovenia, who presented the goals of the workshop, the Aarhus Convention on public access to environmental information, public participation and access to justice, as well as EU, national and GEF policies on the same subject and their relevance to the strategy on public involvement in the planned project.

17. Mr Mitja Bricelj, Advisor, Ministry of Environment & Physical Planning, presented the policies and programmes of ICPDR, recent activities and reports that were prepared in Slovenia within the Danube Pollution Reduction Programme, Slovenian legislation related to water pollution and present and future activities of Slovenian government on protecting the Danube River Basin.

18. Mr Ivan Zavadsky, Project Manager, UNDP DRP, presented GEF Strategic Partnership in the Danube/Black Sea Basin focusing on UNDP DRP, its objectives and current status of implementation, financial mechanisms, as well as on its NGO-oriented activities.

19. Ms Nadja Cvek, Associate Banker, EBRD Slovenia Office presented EBRD strategy and activities in Slovenia focusing on the environmental sector.

20. Mr Vlaho Kojaković and Ms Mari Linnapuomi, Project Formulation Team, FAO Investment Centre, presented EBRD/GEF Slovenia Water Pollution Reduction Project as it is currently seen by the project formulation team, emphasising the need to receive stakeholders' feedback and discuss the project proposal in that light.

21. In the discussion, moderated by Ms Milena Marega, the following points were raised:

Needs for environmental investments and barriers faced

22. There is an increasing need for environmental investments in Slovenian industrial and municipal sector in order to comply with national legislative deadlines and EU requirements for emissions reduction. But there are several barriers that both sectors face in accessing financing:

- according to Slovenian legislation municipalities are allowed to borrow only 10% of the yearly budget and several municipalities are already over-indebted; furthermore;
- many Slovenian municipalities are small in size and for this reason have particular problems with financing big investments. The process of establishment of regions is too slow;
- interest rates are high and standard loan repayment periods are too short for environmental investments;
- many investors, in particular SMEs and small municipalities, have difficulties with providing satisfactory collateral;
- many support schemes/state subsidy schemes are difficult to use because of extensive and complex application procedures;
- new State Aid regulations restrict the financing of industrial pollution reduction investments with wastewater tax reduction funds.

Relation of the proposed project with other relevant support schemes

23. The planned project aims to be complementary to the existing programmes but, to ensure this, the relationship and linkages with other relevant support schemes should be clarified.

24. This applies, in particular, to Ekofund, with which the proposed Credit Facility risks to compete. The need for clarification also concerns EU programmes, especially with regard to co-financing possibilities. Finally, it applies to ICPDR work to which the proposed project should contribute and from which a formal approval should be sought. Ekofund and ICPDR issues were raised in particular by the representative of the MOEPP who strongly criticised the project for lack of cooperation with, and lack of involvement of, the Government authorities in the preparation process. Project Formulation Team responded with the argument that MOEPP and ICPDR are aware of the project and have been consulted several times during project preparation.

25. Regarding the relations with and use of experiences of Ekofund, the Project Formulation Team stated that the results of a recent demand assessment show that the need for investment funding is considerably higher than available funding supply. Considering this fact the new Credit Facility will increase the availability of environmental funding possibilities and will decentralise the system with the involvement of local banks that have ability to approach the customer via the extensive network of their branch offices.

26. During the development of project concept the communication with Ekofund was established and their experiences considered in project formulation. The planned Credit Facility aims to be complementary to Ekofund and should be implemented in partnership.

27. According to Ekofund representative, the planned project could be complementary in case that the credit line will not be classified as State Aid (see below). Otherwise it will clearly become a competing activity.

State aid regulation and its applicability to the proposed project

28. The issue of State Aid regulation and its applicability to the proposed project was raised several times. Workshop participants commented that because of GEF involvement in the project, it is very probable that the credit line will be implemented with the involvement of the government and considered as State Aid. EBRD representative assured that the credit line will not be classified as State Aid, but Project Formulation Team will request further clarification from the State Aid Commission of the Ministry of Finance.

Technical assistance, procedures

29. Investors (SME and small municipalities) need technical assistance in preparing bankable investment plans and in technical preparation of investments. In order to help investors, procedures for acquiring credits should be simple and clear.

Eligibility of environmental investment projects

30. As a reply to a participant's question related to eligibility of projects, the project formulation team explained that applications will be assessed on the base of set of criteria that include environmental dimensions. Priority will be given to projects that will significantly contribute to pollution reduction, use of innovative technology, etc.

31. Participants raised additional questions related to (i) eligibility of the Adriatic drainage area; (ii) whether a maximum size for eligible companies would be established; (iii) whether activities addressing indirect (diffuse) pollution, such as landfills, would be eligible; (iv) whether public works aiming at removing polluted sediments from rivers would be eligible. Clarification was sought from the Project Formulation Team.

Loan price

32. As a reply to the EBRD representative's question related to the maximum loan price, the workshop participants responded that the highest acceptable is the actual loan price offered by Ekofund.

Announcement and information dissemination, selection of local banks

33. Information was requested on how EBRD will select participating banks, and how the launching of the Credit Facility will be announced. Reference was made to established Ekofund practice of publishing calls for tender. The Project Formulation Team explained that special criteria would be defined for the selection of local banks. Information on the Credit Facility will be disseminated through EBRD information channels, through local banks involved in the scheme, and through other information points that are planned in the project. For the announcement also the Official Journal and main newspaper Delo will be used.

Public involvement and role of NGOs

34. Questions on further public involvement and the role of NGOs in the project were posed. REC's participation in the preparation of a public involvement strategy for the project was explained and the principles of the strategy briefly presented. Due to the fact that public

involvement in project design, implementation and evaluation is new in Slovenia, workshop participants were not clear enough about their role and their expected contribution. REC Slovenia representative repeated the intention of the project formulation team to prepare a strategy on informing and involving public. Main steps in implementation of this open and transparent strategy will be prepared in co-operation with REC Slovenia. NGOs are invited as one of most important stakeholders groups and should play their role in the project. It was advised to reserve some funding in project budget for participation of NGOs.

Experiences in Slovakia

35. A precedent case of an EBRD attempt to establish an environmental credit facility in Slovakia in the early 1990s was raised in the margins of the workshop. Lessons learned from this unsuccessful experience include that (i) the subsidy element, if not well designed, risks to be absorbed by participating local FI, without benefiting the end-user. This results in an expensive, i.e. unattractive, financial product and consequently to slow/no disbursement of the funds; (ii) local FI are not interested in substantial in-house capacity-building in environmental matters but rather contract this work out. The related procedures should be as simple as possible.

Next steps

36. The project formulation team informed participants on next steps, namely, finalisation of the project proposal, including incorporation of workshop results, and its submission to GEF Council and EBRD Board of Governors. If these bodies agree with the proposed approach, approval is expected by end-2002. The approval is likely to be followed by an information/marketing workshop as well negotiations between EBRD and local banks interested in participating to the project. The project formulation team will keep participants updated on progress in project preparation.

37. A workshop report will be prepared by REC Slovenia. Participants will be provided with an opportunity to comment on the draft report before its finalisation and circulation on the REC Slovenia website. Workshop presentations will also be made available on the website.

ATTACHMENT 1: LIST OF PARTICIPANTS

Organization	Category	Name	Town
Delamaris d.d.	company	Andrej Poljak	Izola
Delegacija evropske komisije	ECD	Emil Treteuiamm	Ljubljana
Društvo za varstvo voda "Dreta"	NGO	Franc Bastl	Gornji grad
Ekološko razvojni sklad Republike Slovenije d.d.	Ekofund	Igor Čehovin	Ljubljana
E-NET	consultancy	Jorg Hodalič	Ljubljana
Evropska banka za obnovo in razvoj	bank	Nadja Cvek	Ljubljana
Evropska banka za obnovo in razvoj, BAS Programme	bank	Miha Švent	Ljubljana
Farma Stična	company	Janez Ponebšek	Stična
GZS - ZTOUPI		Jadranka Manasovič	Ljubljana
Henkel Slovenija d.o.o.	company	Otilija Čuček	Maribor
Inštitut za geografijo	consultancy	Aleš Smrekar	Ljubljana
Javno podjetje Vodovod - kanalizacija	company	Aleš Hojs	Ljubljana
Komunala Radovljica	company	Drago Finžgar	Radovljica
Lek d.d.	company	Martin Rahten	Ljubljana
Limnos d.o.o.	consultancy	Bogdan Macarol	Ljubljana
Luka Koper INPO d.o.o.	company	Zlatko Fuks	Koper
Mestna občina Ljubljana, Zavod za varstvo okolja	municipality	Dušan Ciuha	Ljubljana
Mestna občina Ljubljana, Zavod za varstvo okolja	municipality	Marjana Jankovič	Ljubljana
Ministrstvo za kmetijstvo, gozdarstvo in prehrano	ministry	Suzana Stražar	Ljubljana
Nacionalni inštitut za biologijo	consultancy	Ciril Krušnik	Ljubljana
Nova ljubljanska banka d.d.	bank	Maja Gazvoda	Ljubljana
Nova ljubljanska banka d.d.	bank	Predrag Milenkovič	Ljubljana
Nova kreditna banka Maribor d.d.	bank	Matjaž Južnič	Ljubljana
Nova ljubljanska banka d.d.	bank	Jelka Nučič	Ljubljana
Občina Grosuplje	municipality	Jože Petarka	Grosuplje
Občina Kamnik	municipality	Franc Resnik	Kamnik
Občina Slovenska Bistrica	municipality	Tomaž Pristovnik	Slovenska Bistrica
Občina Škofja Loka	municipality	Boštjan Coznar	Škofja Loka
Občina Trzin	municipality	Marta Gregorčič Štok	Mengeš
Oikos d.o.o.	consultancy	Katja Podlipnik	Vir pri Domžalah
Paloma tovarna lepenke Ceršak d.d.	company	Alfred Pfifer	Ceršak
Pomurke mlekarne d.d.	company	Ludvik Bratuša	Murska Sobota
R.Z.S. - kom.	consultancy	Anton Privošnik	Gomilsko
Regijsko društvo ekološkega gibanja Ivančna Gorica	NGO	Franc Hegler	Ivančna Gorica
Regionalni center za okolje za srednjo in vzhodno Evropo	REC	Milena Marega	Ljubljana
Ribiška zveza Slovenije	NGO	dr. Miha Janc	Ljubljana
RZS, KGZNG, Občina Ilirska Bistrica	municipality	Zlatko Janko	Ilirska Bistrica
Slovenske železarne Acroni d.d.	company	Banko Banko	Jesenice
TSP tovarna sukancev in trakov d.d. Maribor	company	Dolores Tručl	Maribor
UNDP/GEF Danube Project		Ivan Zavadsky	Wien, Austria
Ministry of Environment and Spatial Planning	ministry	Mitja Bricelj	Ljubljana
Unior d.d. Zreče	company	Janez Sevšek	Zreče

GEF/SLOVENIA

REDUCING WATER POLLUTION IN THE DANUBE BASIN

ANNEX 5

ENVIRONMENTAL ELIGIBILITY CRITERIA

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A. INTRODUCTION

1. The European Bank for Reconstruction and Development (EBRD) in cooperation with the Global Environment Facility (GEF) plans to support the National Pollution Reduction Project in Slovenia. The objective of the project is to demonstrate the use of financial intermediaries in achieving the reduction of industrial, municipal, and agricultural point source water pollution in the country. This will be accomplished through the creation of a partly subsidised Credit Line facility (the "Facility" or CF) to local financial intermediaries (FI) in Slovenia with the aim of financing investments that reduce water pollution in the Danube river basin (DRB).

2. This document presents the environmental eligibility criteria and associated procedures to evaluate investment project proposals submitted for consideration for funding under the Facility. The eligibility criteria ensure that the GEF resources which complement EBRD resources provided through the Facility, finance the incremental costs of generating global environmental benefits as described in the GEF Operational Strategy and Operational Program 8 in the International Waters Focal Area[1]. The proposed criteria do not cover the financial or other loan-related criteria that local FIs, the Government of Slovenia (GOS), and/or the EBRD might apply to evaluate loan applications.

3. The eligibility criteria are consistent with the requirements and objectives of Slovenian and EU policies and legislation which cover water quality and wastewater treatment as well as with relevant strategies and programs of GEF, EBRD and International Commission for the Protection of the Danube River (ICPDR).

B. OBJECTIVES

4. The objective of the EBRD/GEF Credit Facility is to provide financial support for the implementation of trans-boundary pollution reduction investment projects. The project aims to support private and public sector investments that would reduce pollutants (nutrients and toxic substances) that are responsible for the degradation of the aquatic environment in the Danube River Basin and the Black Sea. The international cooperation efforts in the Danube basin are based on the "Convention on Co-operation for the Protection and Sustainable Use of the Danube River" (Danube River Protection Convention). The Convention became legally binding for the entire region in October 1998. The implementation of the Convention is carried out under the guidance of the ICPDR. The policy documents agreed under the auspices of the ICPDR, in particular the Strategic Action Plan or SAP (1995 and 1999 revision) and the Joint Action Programme or JAP (2000), as well as earlier and ongoing GEF programmes supporting ICPDR work, namely Danube Pollution Reduction Programme or DPRP (1997-1999) and the GEF Strategic Partnership on the Danube/Black Sea Basin (2001-2007), have served as the overall framework for the project[2].

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1 "The overall strategic thrust of GEF-funded international waters activities is to meet the agreed incremental costs of: ... (c) implementing measures that address the priority transboundary environmental concerns" (GEF Operational Strategy, Chapter 4; see: http://www.gefweb.org/).

2 For ICPDR and related GEF programmes, see http://www.icpdr.org/pls/danubis/DANUBIS.navigator.

5. ICPDR programmes divide pollution reduction projects in the DRB into four groups: industrial, municipal, agricultural and wetlands projects. While the proposed EBRD/GEF Credit Facility would focus on private sector projects in industry it would not exclude municipal and large-scale agricultural projects. Industrial projects provide significant opportunities for water pollution reduction in the DRB but their implementation to date has been constrained by, amongst other things, the lack of an appropriate and affordable funding mechanism.

6. In line with ICPDR policies and DPRP results, the Credit Facility would emphasise reducing nutrient pollution but would also be available to "hot spot" polluters identified in the ICPDR/GEF Slovenian National Review under the DPRP (1998)[1] and other industries discharging permanent toxic pollutants.

7. Examples of possible sub-projects to be funded through the Facility include:

(a) Industry:
- construction, restoring and upgrading of industrial sewer systems and wastewater treatment plants (WWTP);
- upgrading of industrial processes with best available technologies (BAT) to minimise toxic/nutrient release;
- expansion of discharging facilities;
- industrial retrofitting to optimise feed stock inputs and minimise process waste;
- proper storage, treatment disposal and recording of hazardous substances;
- prevention of water pollution from landfills;
- reduction of the risk of spills and accidental discharges;
- re-use and recycling projects.

(b) Agriculture:
- proper treatment of wastewater discharges by farms;
- construction of WWTPs;
- re-use / recycling of agricultural waste;
- agricultural use of slurry.

(c) Municipalities:

(d) construction of WWTPs;

(e) construction/extension/renovation of sewer systems.

8. Of the total investment cost estimated for each sub-project, the incremental cost associated with the generation of global environmental benefits would be provided by GEF in the form of a grant. The rest, considered as basic investments (baseline costs), is expected to be provided from the loan component of the Credit Facility, provided by EBRD, as well as from domestic or other international financial sources, (company's own resources, national environmental funds, commercial loans, EU funds etc.). Loans from the Credit Facility would be disbursed directly by local FIs participating in the Facility. The GEF component would be included as a cash advance/lump sum payment disbursed upon completion of the environmental investment.

[1] See http://www.icpdr.org/pls/danubis/DANUBIS.navigator.

C. ORGANIZATION AND SCOPE

9. The proposed eligibility check described below would serve to identify potential sub-borrowers among applicants soliciting loans from the Credit Facility who would qualify for GEF funding in support of investments which generate global environmental benefits. For this purpose, the proposed criteria would enable the selection of investments which:

(i) are consistent with Slovenian and EU policies and legislation as well as with the policies and programmes of ICPDR, GEF and EBRD; and
(ii) contribute to reducing trans-boundary water pollution associated with nutrient sources and selected priority substances, principally toxic substances, when appropriate.

10. The achievement of global benefits in the form of a reduction of pollution in the Danube River basin would be ensured through investments which would lead to:

(i) environmental benefits that would be achieved sooner than those resulting from compliance with national/EU requirements;
(ii) environmental benefits that are greater than those resulting from compliance with national/EU requirements; and/or
(iii) demonstration of innovative technologies with potential for replication.

11. The criteria consider both national emission standards and stricter emission conditions, which apply to industries discharging into ecologically sensitive water bodies (see Attachment 1), based on water quality objectives for these water bodies. Water quality considerations have been included in the proposed selection criteria to reflect EU and national policies on environmentally sensitive water bodies.

12. A step-wise procedure for the eligibility check, with participation of both the local FI and an independent Environmental Expert, is proposed. This procedure, described below, would consist of: (i) a preliminary screening of the loan applications by the relevant local FI to establish that basic pre-conditions are met; (ii) an evaluation of the applications by the environmental expert; and (iii) a final decision by local FI.

D. ELIGIBILITY CRITERIA

13. This section presents the proposed eligibility criteria in the form of matrices including, for each criterion, a description and/or background, a field of application, and an indication of how compliance with the criterion should be demonstrated. Pre-conditions (i.e., screening criteria) are presented (Matrix 1) followed by evaluation criteria (Matrix 2).

14. The local Fis will screen all loan applications they receive for consideration of support under the Credit Facility to ensure that the pre-conditions listed below are met. Non-compliance implies that the application is not suitable for further consideration.

Matrix 1: Environmental Screening Criteria

Criterion	Description/Background	Demonstration of meeting the criterion
1) Characterised as a Water Pollution Reduction Project	Only borrowers that apply for funds for investment projects which lead to a reduction in water pollution will be further considered.	Suitable projects include: Industry • construction, restoring and upgrading of industrial sewer systems and WWTP; • upgrading of industrial processes with BAT to minimise toxic/nutrient release; • expansion of discharging facilities; • industrial retrofitting to optimise feed stock inputs and minimise process waste; • proper storage, treatment disposal and recording of hazardous substances; • prevention of water pollution from landfills; • reduction of the risk of spills and accidental discharges; • re-use and recycling projects; Agriculture • proper treatment of wastewater discharges by farms; • construction of WWTPs; • re-use and recycling of agricultural waste; • agricultural use of slurry; Municipalities • construction of WWTPs; • construction/extension/renovation of sewer systems.
2) Location of the polluter in the Slovenian portion of the Danube river basin	The Credit Facility operates in the context of ICPDR and GEF Strategic Partnership in the DRB whose main objective is the reduction of water pollution in the DRB.	Address(es) of the enterprise as given in the registration form. A map of Slovenia depicting the location(s) of the enterprise will be provided.
3) In the case of Municipal WWTPs, the volume of emissions to be treated should not exceed 40,000 PE[1]	Improving wastewater treatment in big municipalities is prioritised in national programmes and EU accession –related support schemes because these municipalities need to comply with the EU Urban Wastewater Directive in the shortest deadlines. To ensure complementarity, the Credit Facility will target smaller municipalities.	Estimate of the size of the municipality in PE.

[1] In order to support cooperation between municipalities, this limitation will not apply to cases where several small municipalities construct a common WWTP.

Matrix 2: Environmental Evaluation Criteria

15. These criteria will be applied by an Environmental Expert contracted under the project to advise the local FIs on the suitability of a proposed investment project for partial GEF financing. At least one of the following three criteria needs to be satisfied for the investment proposal to qualify for the Credit Facility.

Criterion	Field of application	Description/Background	Demonstration of meeting a criterion
1) Investment will help the borrower to come into compliance with national standards before the deadline(s) established in legislation and corresponding licences (minimum 1 year before)[1].	A) Polluters which are not in compliance with national emission standards on nutrient pollution; B) Polluters which are not in compliance with national emission standards on priority substances, and are listed as pollution "hot spots" in the DPRP (see Attachment 1 to Main Report) or other industries discharging permanent toxic substances; C) Polluters which are in compliance with national emission standards but are required to meet stricter effluent conditions on nutrients[2] because they discharge – directly or indirectly – into sensitive	For Category A and C borrowers, reduction in nutrient (N, P) pollution is prioritised in ICPDR programmes, in particular in the DPRP. For Category B borrowers, a list of priority substances will be established by ICPDR (see JAP, p 23) taking into account EU requirements. Before this list is established, EU lists of priority substances will be used (see Attachment 2). Emission standards for big industrial and agricultural polluters are established in the IPPC directive. The directive is expected to apply to 130 companies in Slovenia. The deadline for achieving compliance with IPPC is year 2007, when Slovenia should fully implement the Directive. Fifteen companies have a company-specific extension until 2011. Other national and EU legislation establishes emission standards and related deadlines, mainly on a sectoral basis, for smaller industrial and agricultural enterprises as well as for municipalities (see Attachment 3). These form the basis for company-specific licences.[3][4]	For Category A and B borrowers: - Comparison of technically certified estimated emission reductions with standards established by the relevant legislation; and - An implementation schedule attached to the loan application committing the borrower to an investment programme which will achieve the required standards one year before the deadlines (or earlier). For Category C borrowers, - Demonstration that specific effluent conditions, and related deadlines, apply to the borrower; and - Demonstration of how the investment would contribute to meeting these conditions; and - Implementation schedule for the proposed investment (and possibly other related

1 A common deadline for investments to be financed from the Credit Facility cannot be established since the legislative deadlines are mostly based on sectoral decrees and thus vary from sector to sector. In addition, even if EU-harmonised legislation is already in force for the majority of industries, in some sectors, regulations are still under development.

2 Or, in the case of pollution "hot spots" and other industries discharging permanent toxic substances (see Attachment 1 to Main Report), priority substances.

3 In some cases, exceptions to these deadlines are granted for polluters, which have difficulties in achieving compliance. These companies are normally required to present a time-scheduled plan for achieving standards. An investment that accelerates the implementation of this plan would also be eligible under this criterion.

4 In some cases, national emission standards may not apply to indirect dischargers. However, municipalities have established standards, based on national guidelines, for effluents discharged in their sewage system. An investment that would accelerate the achievement of these standards would also be eligible under this criterion.

	water bodies for which water quality standards on nutrients have been established	Concerning Category C borrowers, water quality standards have been or are in the process of being established on the basis of national and EU legislation for specific water bodies related to their ecological characteristics or their use (examples include: sensitive areas as defined in EU Water Framework Directive (WFD), wetlands, habitats of endangered species, drinking water sources, bathing waters, significant impact areas as defined by ICPDR). See Attachment 1.	measures) demonstrating that the conditions will be achieved before the deadline.
2) Investment will help the borrower to reduce nutrient pollution beyond national standards or polluter-specific effluent conditions established in legislation and corresponding licences. In the case of DPRP "hot spots" and other industries discharging permanent toxic substances (see Attachment 1 to Main Report), reductions in emissions of priority substances would also be eligible.	This criterion allows the Credit Facility to reach polluters which are already in compliance with national standards but are interested in exceeding them in order to improve downstream water quality.	Improvement of water quality is a strategic priority for Slovenia established e.g. in the National Environmental Protection Programme (NEPP). This criterion also reflects Slovenian commitment to the ALARA principle (As Low As Reasonably Achievable), involving both technological approaches (BAT) as well as siting of activities (physical planning).	- Demonstration that the borrower is in compliance with national emission standards/polluter-specific effluent conditions; - An investment programme, with a technically certified estimate of emission reductions demonstrating that the borrower will exceed relevant national standards/effluent conditions.
3) Introduction of innovative technology reducing nutrient pollution In the case of DPRP "hot spots" and other industries discharging permanent toxic substances (see Attachment 1 to Main Report); reductions in emissions of priority substances would also be eligible.	All borrowers.	This criterion is satisfied if the loan will be used to invest in the application of new, environmentally sound, and innovative technology which has significant potential for nutrient pollution reduction as well as replication potential in the DRB. Both process-related and end-of-pipe technologies are eligible under this criterion.	- Comparative technology assessment supported by scientific/empirical data on successful pilot or industrial scale implementation; and - Demonstration of replication potential based on specified criteria (e.g. the number of potential users of the proposed technology in the DRB)

E. OTHER REQUIREMENTS

16. In addition to meeting one or more of the criteria cited above, to qualify for a GEF-supported loan from the Credit Facility, a sub-borrower would have to satisfy the following two conditions. The fulfilment of these conditions will be assessed by the Environmental Expert.

(i) Cost-effectiveness. The proposed investment should be, in the long term, the least-cost option for achieving intended emission reductions or, alternatively, it should generate additional environmental or other benefits, which justify higher costs. This condition will be assessed by: (a) estimating the volume of nutrients and other water pollution reduction per $US of funds invested and per year of operation; (b) providing a description of alternative emission reduction measures (related e.g. to management, operation and maintenance, or – for end-of-pipe investments – cleaner production) considered during the preparation of the investment proposal, and reasons for rejection; and, when applicable, (c) including a description of additional environmental or other benefits from the proposed investment.

(ii) Monitoring of Effluent Quality. To ensure that the Credit Facility leads to intended pollution reduction, each investment will need to be carefully monitored. This will be ensured by requiring an Environmental Monitoring Plan specifying how effluents will be monitored. The plan should cover: the water pollution parameters to be monitored (such as BOD, COD, suspended solids and toxics), monitoring frequency, monitoring methods and responsibilities, measures in case of unsatisfactory monitoring results, and provision of monitoring information to the Credit Facility. If needed, the sub-borrower should revise the plan on the basis of comments from the Environmental Expert. After the sub-project is operational, the Environmental Expert will undertake a site-visit to ensure successful project completion (defined for the purposes of this project as the point of successful installation and confirmed operation of the loan-financed equipment). The Environmental Expert will continue monitoring the environmental performance of the sub-project throughout the loan payback period and will have the right to make a short-notice site visit to any company to verify the reported results.

(iii) Compliance with health, safety and environmental (HSE) requirements. The loan applicant has to demonstrate compliance with HSE regulations (or present an action plan with allocated resources to achieve compliance within a specified time frame) in areas other than water pollution.

F. Procedures for GEF Eligibility Check

17. A step-wise procedure is proposed for checking the eligibility of loan applications:

(i) Loan applications, together with supporting information, are presented by the sub-borrower to a local FI participating to the Credit Facility. To minimise additional paperwork, the applications should be presented using the normal

loan application form of the local FI, complemented with a short environmental section (standard format to be developed) for the purpose of the GEF eligibility check.

(ii) Local FI undertakes a preliminary assessment of the applications using the environmental preconditions presented in Matrix 1. Loan applications that are considered potentially eligible, together with supporting environmental information, are sent to the Environmental Expert.

(iii) The Environmental Expert checks the GEF eligibility of each loan application using the evaluation criteria presented in Matrix 2. To undertake the eligibility check, the Environmental Expert uses the information provided by the sub-borrower to local FI. If needed, the Environmental Expert requests additional information from the sub-borrower, and undertakes site visits to evaluate the application.

(iv) For every loan application received, the Environmental Expert provides the local FI with a completed eligibility check sheet (format to be developed) indicating:

- whether the loan application is eligible under the evaluation criteria and which criteria it meets;
- whether the environmental monitoring plan, as presented by the sub-borrower, is adequate and, if not, what improvements in the plan are needed before the loan is approved;
- whether the sub-borrower's business meets, or has action plan and allocated resources to meet, national health, safety and environmental permit and other requirements in areas not covered by this project (i.e. other than water pollution); and
- what, if any, environmental conditions need to be attached to the loan.

18. Unless otherwise agreed with the local FI, the Environmental Expert completes the eligibility check within 10 days of receiving the application.

(i) The local FI, using its own financial criteria, takes a decision on approving or rejecting an environmentally eligible application for a loan from the Credit Facility[1].

(ii) For approved loans, the local FI provides the Environmental Expert with the final monitoring plan for sub-project completion test and subsequent environmental monitoring of the investment (see Annex 2).

[1] For loan applications that are <u>not</u> considered environmentally eligible for the Credit Facility, the local FI may grant loans from other resources.

ATTACHMENT 1: INITIAL LIST OF ENVIRONMENTALLY SENSITIVE WATER BODIES IN SLOVENIA

Location	Detailed Description	Area km2
Sava-Kranjska Gora	Povirje Save	44.61
Pišenca	Vodozbirna površina Pišence	37.68
Sava-Rute	Porečje Save od sotočja s Pišenco do sotočja z Bistrico	79.70
Bistrica (Sava Dolinka)	Vodozbirna površina Bistrice v porečju Save Dolinke	47.36
Sava-Jesenice	Porečje Save od sotočja z Bistrico do sotočja z Javornikom z vodozbirno površino Javornika	86.21
Sava-Moste	Porečje Save od sotočja z Javornikom do sotočja z Radovno- Moščansko jezero	40.78
Savica	Povirje Savice od izvira do vtoka v Bohinjsko jezero	67.55
Cerkniško jezero	Vodozbirna površina Cerkniškega jezera do ponikev	270.42
Javorniški tok	Vodozbirna površina Javorniškega toka	278.12
Pivka z Nanoščico	Vodozbirna površina Pivke in Nanoščice	234.14
Unica	Kraška vodozbirna površina Ljubljanice od izvirov Unca do izvirov na Barju	231.99
Logaščica	Vodozbirna površina Logaščice do ponikev	83.13
Dobravka	Povirje Krke od izvira do sotočja z Rašico	106.25
Rašica	Vodozbirna površina Rašice	54.09
Kraška Krka	Porečje Krke od sotočja z Rašico do sotočja z Višnjico	106.50
Višnjica	Vodozbirna površina Višnjice	75.98
Krka-Šmihel	Porečje Krke od vtoka Višnjice do sotočja z Radešico	531.22
Dobre potok	Vodozbirna površina Dobrega potoka	231.32
Radešica	Vodozbirna površina Radešice	187.12
Krka-Meniška vas	Porečje Krke od sotočja z Radešico do sotočja s Sušico	1.13
Sušica (Straža)	Vodozbirna površina Sušice v porečju Stražke Krke	35.96
Krka-Straža	Vodozbirna površina Krke od sotočja s Sušico do vtoka Potoka	17.59
Potok (Krka)	Vodozbirna površina Potoka v porečju Krke	11.76
Krka-Zalog	Porečje Krke od vtoka potoka do sotočja s Temenico	3.75
Temenica-Sabrače	Povirje Temenice od izvira do sotočja z Bukovico	13.35
Bukovica	Vodozbirna površina Bukovice	12.19
Temenica-Trebenje	Porečje Temenice od sotočja z Bukovico do ponikev pri Ponikvah	77.74
Temenica-Mirna Peč	Porečje Temenice od Ponikev do izvira pri Luknji	63.04
Temenica-Prečna	Povirje Temenice od izvira pri Luknji do vtoka v Krko	11.60
Krka-Češča vas	Porečje Krke od sotočja s Temenico do sotočja z Bršljinskim potokom	13.34
Bršljinski potok	Vodozbirna površina Bršljinskega potoka	38.09
Krka-Portoval	Porečje Krke od sotočja z Bršljinskim potokom do sotočja s Težko vodo	1.08
Težka voda	Vodozbirna površina Težke vode	90.94
Krka-Novo mesto	Porečje Krke od sotočja s Težko vodo do sotočja z Rateškim potokom	35.43
Rateški potok	Vodozbirna površina Rateškega potoka	25.45
Krka-Otočec	Porečje Krke od sotočja z Rateškim potokom do sotočja s Čadraškim potokom	45.53
Čadraški potok	Vodozbirna površina Čadraškega potoka	28.07

Krka-Dobrava	Porečje Krke od sotočja s Čadraškim potokom do sotočja s Raduljo	23.15
Radulja-Štatenberg	Povirje Radulje od izvira do sotočja z Gostinco	18.33
Gostinca (Radulja)	Vodozbirna površina Gostince v porečju Radulje	9.04
Radulja-Radove	Porečje Radulje od sotočja z Gostinco do sotočja z Laknico	24.56
Laknica	Vodozbirna površina Laknice	20.54
Radulja-Zalog	Porečje Radulje od sotočja z Laknico do sotočja z Dolskim potokom	15.71
Dolski potok	Vodozbirna površina Dolskega potoka	19.68
Radulja-Škocjan	Porečje Radulje od sotočja z Dolskim potokom do vtoka v Krko	9.91
Krka-Sv.Miklavž	Porečje Krke od sotočja z Raduljo do sotočja z Račno	3.84
Račna	Vodozbirna površina Račne	42.85
Krka-Prekopa	Porečje Krke od sotočje z Račno do sotočja s Senušo	69.91
Senuše	Vodozbirna površina Senuše	33.25
Krka-Podbočje	Porečje Krke od sotočja s Senušo do sotočja s Sušico	49.87
Sušica	Vodozbirna površina Sušice v porečju Kostanjeviške Krke	23.75
Krka-Krška vas	Porečje Krke od sotočja s Sušico do vtoka v Savo	67.52
Povirje Pesnica	Povirje Pesnice od izvira do sotočja z Glavčnico	0.22
Glavčnica	Vodozbirna površina Glavčnice	0.88
Pesnica-Jurij	Porečje Pesnice od sotočja z Glavčnico do sotočja z Radečkim potokom	8.05
Radečki potok	Vodozbirna površina Radečkega potoka	7.10
Pesnica-Kungota	Porečje Pesnice od sotočja z Radečkim potokom do sotočja s Svečino	8.20
Svečina	Vodozbirna površina Svečine	17.39
Pesnica-Gradiška	Porečje Pesnice od sotočja s Svečino do sotočja z Dobranjskim potokom	17.71
Dobranjski potok	Vodozbirna površina Dobranjskega potoka	7.90
Pesnica-Dvor	Porečje Pesnice od izvira do sotočja s Cirknico	3.13
Cirknica	Vodozbirna površina Cirknice	15.84
Pesnica-Vosek	Porečje Pesnice od sotočja s Cirknico do sotočja z Jareninskim potokom	13.70
Jareninski potok	Vodozbirna površina Jareninskega potoka	20.01
Pesnica-Vukovje	Porečje Pesnice od sotočja z Jareninskim potokom do sotočja z Jakobskim potokom	0.88
Jakobski potok	Vodozbirna površina Jakobskega potoka	19.92
Pesnica-Pristavsko jezero	Porečje Pesnice od sotočja z Jakobskim potokom do sotočja z Jablanškim potokom	9.54
Zgornja Ščavnica	Povirje Ščavnice od izvira do Spodnje Ščavnice	34.73
Spodnja Ščavnica	Porečje Ščavnice od Spodnje Ščavnice do Stavešincev	31.44
Ščavnica-Grabonoš	Porečje Ščavnice od Stavešincev do sotočja s Turjo	91.19
Ledava-Černelavci	Povirje Ledave od izvira do Černelavcev	172.49
Povirje Dragonje	Povirje Dragonje od izvira do sotočja s Pinjevcem	27.91
Pinjevec	Vodozbirna površina Pinjevca	20.15
Dragonja-Grič	Porečje Dragonje od sotočja s Pinjevcem do sotočja s Poganjo	19.15
Dragonja-Sečovlje	Porečje Dragonje od sotočja s Poganjo do vtoka v morje	4.16
Sečoveljske soline	Povirje Sečoveljskih solin	4.35
Drnica	Vodozbirna površina Drnice	33.04
Obala od vtoka Drnice do vtoka Badaševice	Vodozbirna površina obale od vtoka Drnice do vtoka Badaševice	40.16
Badaševica	Vodozbirna površina Badaševice	37.68

Obala od vtoka Badaševice do vtoka Rižane	Vodozbirna površina obale od vtoka Badaševice do vtoka Rižane	9.20
Kraška Rižana	Kraško povirje Rižane	171.32
Rižana	Povirje Rižane od izvira do vtoka v morje	47.70
Obala od vtoka Rižane do vtoka Timava	Vodozbirna površina morske obale od vtoka Rižane do vtoka Timava	88.48
Reka-Trpčane	Povirje Reke od izvira do sotočja z Moljo	135.67
Molja	Vodozbirna površina Molje	46.12
Reka-Ilirska Bistrica	Porečje Reke od sotočja z Moljo do sotočja s Posrtvijo	48.61
Posrtev	Vodozbirna površina Posrtve	14.45
Reka-Prem	Porečje Reke od sotočja s Posrtvijo do sotočja z Mrzlekom	34.55
Mrzlek	Vodozbirna površina Mrzleka	49.41
Reka-Suhorje	Porečje Reke od sotočja z Mrzlekom do sotočja s Padežem	12.08
Padež	Vodozbirna površina Padeža	43.70
Reka-Škoflje	Porečje Reke od sotočja s Paleom do ponikev v Škocjanskih jamah	37.24
Spodnji Timav	Vodozbirna površina Timava dolvodno od Škocjanskih Jam	447.77

Source: Eurowaternet Slovenija
http://nfp-si.eionet.eu.int/ewnsi/index.htm

ATTACHMENT 2: PRIORITY SUBSTANCES

Priority Toxic Substances identified in the DPRP Slovenia National Review 1998

- Nitrogen (N)
- Phosphorus (P)
- Oil
- Metals
- Cadmium (Cd)
- Mercury (Hg)
- Copper (Cu)
- Nickel (Ni)
- Lead (Pb)
- Zinc (Zn)
- Chromium (Cr)
- Arsenic (As)
- Micropollutants
- Pesticides
    - Dichlorodipheniltrichloroethane (DDT)
    - α, β, δ Hexachlorocyclohexane (HCH)
    - Γ Hexachlorocyclohexane (HCH) (lindane)
    - Metolachlor
    - Atrazine
    - Simazine
- Others
    - Polychlorinated Biphenyl(s) (PCB)
- Pathogenic bacteria and viruses
- Biological Oxygen Demand (BOD)
- Chemical Oxygen Demand (COD)

EU List of Priority Substances in the Field of Water Policy (Decision 2455/2001/EC)

- Alachlor
- Anthracene
- Atrazine
- Benzene
- Brominated Diphenylethers (Penta, Octa, Deca)
- Cadmium and its compounds
- C 10-13-Chloroalkanes
- Chlorfenvinphos
- Chlorpyrifos
- 1,2-Dichloroethane
- Dichloromethane
- Di (2-ethylhexyl) phthalate (DEHP)
- Diuron
- Endosulfan

- Fluoranthene
- Hexachlorobenzene
- Hexachlorobutadiene
- Hexachlorocyclohexane
- Isoproturon
- Lead and its compounds
- Mercury and its compounds
- Naphthalene
- Nickel and its compounds
- Nonylphenols
- Octylphenols
- Pentachlorobenzene
- Pentachlorophenol
- Polyaromatic hydrocarbons
- Simazine
- Tributyltin compounds
- Trichlorobenzenes
- Trichloromethane
- Trifluralin

Indicative List of the Main Pollutants of the EU Water Framework Directive (2000/60/EEC) and EU Integrated Pollution Prevention and Control Directive (96/61/EC)

- Organohalogen compounds and substances which may form such compounds in the aquatic environment
- Organophosphorous compounds
- Organotin compounds
- Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment
- Persistent hydrocarbons and persistent and bioaccumulable organic toxic substances
- Cyanides
- Metals and their compounds
- Arsenic and its compounds
- Biocides and plant protection products
- Materials in suspension
- Substances which contribute to eutrophication (in particular, nitrates and phosphates)
- Substances which have an unfavourable influence on the oxygen balance (and can be measured using parameters such as BOD, COD, etc.).

List of Pollutants for which Excess Emissions have to be Reported to European Pollutant Emission Register (EPER) under the IPCC Directive (see decision 2000/479/EC)

- Nitrogen
- Phosphorous
- Arsenic and its compounds
- Cadmium and its compounds
- Chromium and its compounds

- Copper and its compounds
- Mercury and its compounds
- Nickel and its compounds
- Lead and its compounds
- Zinc and its compounds
- Dichloroethane-1,2 (DCE)
- Dichloromethane (DCM)
- Chloro-alkanes (C10-13)
- Hexachlorobenzene (HCB)
- Hexachlorobutadiene (HCBD)
- Hexachlorocyclohexane (HCH)
- Halogenated organic compounds AOX
- Benzene, Toluene, Ethylbenzene, Xylenes
- Brominated Diphenylether
- Organotin-compounds
- Polycyclic aromatic hydrocarbons-PAH
- Phenols
- Total organic carbon (TOC)
- Chlorides
- Cyanides
- Fluorides.

ATTACHMENT 3: LIST OF SELECTED RELEVANT LEGISLATION

EU Legislation

Bathing Water Directive (76/160/EEC)
Birds Directive (79/409/EEC)
Drinking Water Directive (80/778/EEC) as amended by Directive 98/83/EC
Environmental Impact Assessment Directive (85/337/EEC)
Ground Water Protection Directive (80/68/EEC)
Habitats Directive (92/43/EEC)
Integrated Pollution Prevention and Control Directive (96/61/EC)
Landfills Directive (99/31/EEC)
Major Accidents (Seveso) Directive (96/82/EC)
Nitrates Directive (91/676/EEC)
Plant Protection Products Directive (91/414/EEC)
Sewage Sludge Directive 86/278/EEC
Surface Water for the Abstraction of Drinking Water Directive (75/440/EEC)
Urban Waste Water Treatment Directive (91/271/EEC)
Water Framework Directive (2000/60/EEC)
Water Quality Directive (76/464/EEC) and its daughter directives

Decree on environmental audit for enterprises (1836/93/EEC)

National Legislation

Environmental Protection Act, Official Gazette 32/93 and 1/96
Nature Conservation Act
Regulation on drinking water, Official Gazette 46/97, 52/97, 54/98
Decree on discharging effluents from municipal wastewater treatment plants, Official Gazette 35/96, 90/98, 31/2001
Decree on emission of pollutants from animal farms, Official Gazette, 10/99, 7/2000
Decree on emission of pollution and thermal burden, Official Gazette 35/96
Decree on monitoring of wastewaters, Official Gazette, 35/96
A number of decrees on emission of pollutants from different industries issued since 1996 (see list below in Slovene).

ID Uredbe	IME Uredbe	Ur. List	Skrajšano ime
VOD32	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo alkoholnih pijač in alkohola	7/00	Alkohol
VOD5	Uredba o emisiji azbesta v zrak in pri odvajanju odpadnih voda	75/97	Azbest
VOD33	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo mineralnih vod in brezalkoholnih pijač	7/00	Brezalkoh. pij.
VOD13_4	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo celuloze- nove ali rekonstruirane - magnefitni postopek	10/99	Celuloza-nove-magnefitni
VOD13_2	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo celuloze- nove ali rekonstruirane - sulfatni postopek	10/99	Celuloza-nove-sulfatni
VOD13_3	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo celuloze- nove ali rekonstruirane - sulfitni postopek	10/99	Celuloza-nove-sulfitni
VOD13_1	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo celuloze-obstoječe naprave	10/99	Celuloza-obstoječe
VOD37_1	Uredba o emisiji snovi pri odvajanju odpadnih vod iz komunalnih čistilnih naprav.(4. Člen, <2000)	35/96, 90/98, 31/01	Čistilne-4(<2)
VOD37_3	Uredba o emisiji snovi pri odvajanju odpadnih vod iz komunalnih čistilnih naprav.(4. Člen, med 10000 in 100000)	35/96, 90/98, 31/01	Čistilne-4(10 do 100)
VOD37_2	Uredba o emisiji snovi pri odvajanju odpadnih vod iz komunalnih čistilnih naprav.(4. Člen, med 2000 in 10000)	35/96, 90/98, 31/01	Čistilne-4(2 do 10)
VOD37_4	Uredba o emisiji snovi pri odvajanju odpadnih vod iz komunalnih čistilnih naprav.(4. Člen, več kot 100000)	35/96, 90/98, 31/01	Čistilne-4(več kot 100)
VOD37_5	Uredba o emisiji snovi pri odvajanju odpadnih vod iz komunalnih čistilnih naprav.(5. Člen, med 10000 in 100000)	35/96, 90/98, 31/01	Čistilne-5(10 do 100)
VOD37_6	Uredba o emisiji snovi pri odvajanju odpadnih vod iz komunalnih čistilnih naprav.(5. Člen, več kot 100000)	35/96, 90/98, 31/01	Čistilne-5(več kot 100)
VOD37	Uredba o emisiji snovi pri odvajanju odpadnih vod iz komunalnih čistilnih naprav.(6. Člen)	35/96, 90/98, 31/01	Čistilne-obstoječe
VOD20_2	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za čiščenje dimnih plinov - elektrarne na črni premog	28/00	Dimni plini-črni premog
VOD20_1	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za čiščenje dimnih plinov - elektrarne na rjavi premog in lignit	28/00	Dimni plini-rjavi premog
VOD20_3	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za čiščenje dimnih plinov - elektrarne na tekoča goriva	28/00	Dimni plini-tekoča gor.
VOD18	Uredba o emisiji nevarnih halogeniranih ogljikovodikov pri odvajanju odpadnih vod	84/99	Emisija hal. oglj.
VOD17	Uredba o emisiji kadmija pri odvajanju odpadnih vod	84/99	Emisija kadmija
VOD16	Uredba o emisiji živega srebra pri odvajanju odpadnih vod	84/99	Emisija živega srebra
VOD15	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo fitofarmacevtskih sredstev	84/99	Fitofarmacevtska
Hladilne	To je neobstokeča uredba, uporablja se v bazi v primeru iztoka hladilnih vod, ki se ne merijo.		Hladilna
VOD23_3	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za hlajenje ter naprav za proizvodnjo pare in vroče vode - kotlovnice.	28/00	Hladilna-kotlovnice
VOD23_2	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za hlajenje ter naprav za proizvodnjo pare in vroče vode - obtočni hladilni sistemi.	28/00	Hladilna-obtočni
VOD23_1	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za hlajenje ter naprav za proizvodnjo pare in vroče vode - pretočni hladilni sistemi.	28/00	Hladilna-pretočni
VOD19	Uredba o emisiji snovi pri odvajanju izcedne vode iz odlagališč odpadkov	7/00	Izcedne vode
VOD12	Uredba o emisiji snovi pri odvajanju odpadnih vod iz kafilerij	10/99	Kafilerije
VOD6	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za kloralkalno elektrolizo	10/99	Klorakalna elektroliza
Komunalna	To je neobstoječa uredba, uporablja se v bazi v primeru komunalnega iztoka, ki se ne meri.		Komunalna

VOD2_3	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo kovinskih izdelkov _anodiziranje	35/96 Kovine-anodiziranje
VOD2_4	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo kovinskih izdelkov _briniranje	35/96 Kovine-briniranje
VOD2_9	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo kovinskih izdelkov _brušenje, poliranje in odrezavanje, kjer se uporabljajo sredstva za hlajenje in mazanje na vodni osnovi	35/96 Kovine-brušenje
VOD2_5	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo kovinskih izdelkov _vroče cinkanjein vroče kositranje	35/96 Kovine-cinkanje, kositranje
VOD2_7	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo kovinskih izdelkov _emajliranje	35/96 Kovine-emajliranje
VOD2_1	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo kovinskih izdelkov _galvanska obdelava	35/96 Kovine-galvane
VOD2_6	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo kovinskih izdelkov _kaljenje	35/96 Kovine-kaljenje
VOD2_8	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo kovinskih izdelkov _lakiranje in prašnato lakiranje	35/96 Kovine-lakiranje
VOD2_2	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo kovinskih izdelkov _luženje	35/96 Kovine-luženje
VOD38	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo krmil rastlinskega izvora.	11/01 Krmila rastl. izvora
VOD35	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za predelavo krompirja	7/00 Krompir
VOD39	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo sredstev za lepljenje.	11/01 Lepila
VOD36_2	Pravilnik o prvih meritvah in obratovalnem monitoringu odpadnih vod ter o pogojih za njegovo izvajanje-obdelava lesa, izdelava lesenih izdelkov in lesovinskih plošč	35/96, 29/00 Les
VOD26	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za litje železa in jekla ter tempranje	90/00 Litje železa
VOD28	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo, predelavo in konzerviranje mesa ter proizvodnjo mesnih izdelkov	10/99 Meso
VOD29	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za predelavo mleka in proizvodnjo mlečnih izdelkov	10/99 Mleko
VOD25_3	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za proizvodnjo neželeznih kovin - proizvodnja aluminija.	90/00 Než. kov.-aluminij
VOD25_1	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za proizvodnjo neželeznih kovin - proizvodnja svinca, bakra, cinka ter njihovih zlitin.	90/00 Než. kov.-baker, cink
VOD25_2	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za proizvodnjo neželeznih kovin - proizvodnja molibdena in volframa.	90/00 Než. kov.-molibden, volfram
VOD40	Uredba o emisiji snovi pri odvajanju odpadne vode iz naprav za čiščenje odpadnih plinov sežigalnice odpadkov in pri sosežgu odpadkov.	51/01 Odpadni plini
VOD14	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo papirja, kartona in lepenke-A	10/99 Papir, karton, lepenka-A
VOD14_B	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo papirja, kartona in lepenke-B	10/99 Papir, karton, lepenka-B
VOD14_C	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo papirja, kartona in lepenke-C	10/99 Papir, karton, lepenka-C
VOD14_D	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo papirja, kartona in lepenke-D	10/99 Papir, karton, lepenka-D
VOD14_E	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo papirja, kartona in lepenke-E	10/99 Papir, karton, lepenka-E
VOD14_F	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo papirja, kartona in lepenke-F	10/99 Papir, karton, lepenka-F

VOD24	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo perboratov	49/00	Perborati
VOD30	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo piva in slada	10/99	Pivo
VOD36_1	Pravilnik o prvih meritvah in obratovalnem monitoringu odpadnih vod ter o pogojih za njegovo izvajanje-dejavnost pralnic in kemičnih čistilnic	35/96, 29/00	Pralnice
VOD22_2	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za pridobivanje premoga in proizvodnjo briketov ter koksa - iz objektov in naprav za proizvodnjo briketov iz rjavega premoga.	28/00	Premog-briketi
VOD22_3	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za pridobivanje premoga in proizvodnjo briketov ter koksa - iz objektov in naprav za proizvodnjo koksa iz črnega premoga.	28/00	Premog-koks
VOD22_1	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za pridobivanje premoga in proizvodnjo briketov ter koksa - iz objektov in naprav za pranje, sušenje, mletje, čiščenje, razvrščanje, upraševanje in skepljanje črnega premoga, rjavega	28/00	Premog-pranje
VOD21	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za pripravo vode	28/00	Priprava vode
VOD10	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo rastlinskih in živalskih olj in maščob	10/99	Rastl. in žival. olja
VOD8	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov reje domačih živali	10/99, 7/00	Reja živali
VOD34	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo ribjih izdelkov	7/00	Ribe
VOD31	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za predelavo sadja in zelenjave ter proizvodnjo hrane in globoko zamrznjene hrane	7/00	Sadje
VOD1	Uredba o emisiji snovi in toplote pri odvajanju odpadnih voda iz virov onesnaževanja	35/96	Splošna
VOD7_3	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo stekla in steklenih izdelkov - Kemična obdelava _kislinsko poliranje, jedkanje, matiranje stekla.	10/99	Steklo-kemična obd.
VOD7_2	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo stekla in steklenih izdelkov - Mehanska obdelava _stiskanje, odrezovanje, upogibanje, bočenje, prednapenjanje, brušenje, poliranje, vrtanje, matiranje, itd. vseh vrst s	10/99	Steklo-mehan. obd.
VOD7_4	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo stekla in steklenih izdelkov - Srebrenje in bakrenje ravnega stekla _izdelava zrcal ter srebrenje drobnih steklenih predmetov.	10/99	Steklo-srebrenje
VOD7_1	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo stekla in steklenih izdelkov - Priprava zmesi, taljenje in oblikovanje stekla, steklenih vlaken in umetnih mineralnih vlaken ter čiščenje odpadnega zraka iz naštetih vi	10/99	Steklo-taljenje
VOD7_5	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo stekla in steklenih izdelkov - Predelava steklenih vlaken ali umetnih mineralnih vlaken v tkanine iz steklenih vlaken ali izolacijske materiale ter čiščenje odpadnega z	10/99	Steklo-vlakna
VOD3	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo, predelavo in obdelavo tekstilnih vlaken	35/96	Tekstil
VOD4	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov in naprav za proizvodnjo usnja in krzna	35/96	Usnje
VOD9_1	Uredba o emisiji snovi pri odvajanju odpadnih vod iz postaj za preskrbo motornih vozil z gorivi, objektov za vzdrževanje in popravila motornih vozil ter pralnic za motorna vozila -postaje za polnjenje tekočih goriv v motorna vozila, v rezervoarje, v lokom	10/99	Vozila-črpalke

VOD9_3	Uredba o emisiji snovi pri odvajanju odpadnih vod iz postaj za preskrbo motornih vozil z gorivi, objektov za vzdrževanje in popravila motornih vozil ter pralnic za motorna vozila -iz objektov za popravljanje motornih vozil, lokomotiv ali vagonov ter mobil	10/99	Vozila-izločanje
VOD9_2	Uredba o emisiji snovi pri odvajanju odpadnih vod iz postaj za preskrbo motornih vozil z gorivi, objektov za vzdrževanje in popravila motornih vozil ter pralnic za motorna vozila - iz objektov in naprav za čiščenje karoserij in dna motornih vozil, lokomot	10/99	Vozila-pralnice
VOD11	Uredba o emisiji snovi pri odvajanju odpadnih vod iz objektov za opravljanje zdravstvene in veterinarske dejavnosti	10/99	Zdravst. in veterin. dej.
VOD27_4	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za proizvodnjo železa in jekla - naprave za vroče oblikovanje cevi.	90/00	Železo-cevi _vroče
VOD27_6	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za proizvodnjo železa in jekla - naprave za hladno oblikovanje cevi, profilov, paličnega jekla in žice.	90/00	Železo-hladno oblikovanje
VOD27_1	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za proizvodnjo železa in jekla - plavži za proizvodnjo surovega železa in naprave za granulacijo žlindre.	90/00	Železo-plavži
VOD27_7	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za proizvodnjo železa in jekla - naprave za kontinuirano površinsko obdelavo polizdelkov iz jekla.	90/00	Železo-površ. obd.
VOD27_2	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za proizvodnjo železa in jekla - naprave za proizvodnjo surovega jekla vključno s sekundarno metalurgijo.	90/00	Železo-surovo jeklo
VOD27_5	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za proizvodnjo železa in jekla - naprave za hladno valjanje trakov.	90/00	Železo-trakovi _valjanje
VOD27_3	Uredba o emisiji snovi pri odvajanju odpadnih vod iz naprav za proizvodnjo železa in jekla - naprave za kontinuirano litje in vroče oblikovanje.	90/00	Železo-vroče oblik.

GEF/SLOVENIA

REDUCING WATER POLLUTION IN THE DANUBE BASIN

ANNEX 6

ASSESSMENT OF DEMAND FOR A CREDIT FACILITY AIMED AT WATER POLLUTION REDUCTION

ANNEX 6

ASSESSMENT OF DEMAND FOR A CREDIT FACILITY AIMED AT WATER POLLUTION REDUCTION

CONTENTS

ANNEX 6

ASSESSMENT OF DEMAND FOR A CREDIT FACILITY AIMED AT WATER POLLUTION REDUCTION

A. BACKGROUND

1. This study has produced estimation that total demand for investments aimed at reduction of water pollution in the Danube area of Slovenia (covering 81% of the surface) in the private/industrial sector would be EUR 384 million. This demand is covering the timeframe of 2003-2007. The main driver for these investments in the near future is newly implemented legislation in line with the EU acquis.

2. In addition, the public sector Waste Water Treatment Programme would require additional EUR 593 million in the timeframe of 2002-2010. At least EUR 168 million of this sum is to be expected as requirement for additional funding.

3. Recommendations for the planned facility:

- The investment support facility, consisting of credits, subsidies and technical assistance shall be started very soon, because the deadlines imposed by the new environmental legislation are set in the very near future. Additionally, the companies that are in a stable financial condition - and therefore attractive for commercial borrowing - are already investing.

- The Facility shall be - already in preparation phases - well co-ordinated with governmental institutions and local/international funds to avoid any unnecessary competition that would only be unfavourable for the end users.

- The industrial demand would strongly depend on borrowing conditions and the size of grant scheme offered.

- If the credit lines would be implemented through local commercial banks, it has to be taken into account that a good share of companies that would need assistance are not in good financial shape and therefore much less attractive for commercial banks operation.

- The loan and grant scheme will have to be supported by technical (and financial) advisory support facility, consisting of both local and foreign experts. Apart from the usually extensive documentation preparation assistance, most companies would require professional advisory support related to environmental issues.

4. The European Bank for Reconstruction and Development (EBRD), in co-operation with the Global Environment Facility (GEF), is considering launching a new Credit Facility in Slovenia, with the aim of protecting the Danube River. The proposed Facility will build on the work of the Slovenian government to meet the highest European environmental standards and on the basin-wide activities of the International Commission for the Protection of the Danube River (ICPDR). It will contribute to the implementation of these policies by bringing in new investment

financing, channelled by local commercial banks to the private and municipal sectors, and softened with GEF grant funding.

5. Reduction of nutrient load in the Danube basin will be the primary target of the proposed Facility. The main focus will be on industries where the Credit Facility will finance both in-plant and end-of-pipe measures, with special attention to small- and medium-sized enterprises and new and innovative technologies. Concerning municipalities, the Facility is likely to find clients among small and mid-sized municipalities which need to construct or improve their wastewater treatment facilities or sewer systems. In agriculture, the Facility will help large livestock farms to reduce their wastewater discharges.

6. This study shall contribute to the on-going preparation activities for this Facility, providing the missing information on industrial and public investment requirements in the near future.

B. POLLUTION ENVIRONMENT

Legislation and Related EU Directives Implementation Status

7. In the recent 2-3 years there have been intensive activities on adoption of EU Directives and harmonisation with EU-acquis in terms of various systematic environment protection laws and Regulations. Based on the National Environmental Pre-Accession strategy, the government is now in the final stages of acquis adoption. In 2002 some final updates are planned in the areas of general nature protection, chemicals and transportation. In the water-related areas all essential legislative requirements have been implemented (in July 2002 the Law on Waters was enforced) - details in Table 1 below.

8. Most of the required environmental authorities and surveillance bodies have now been established. The most relevant in terms of water pollution regulation is the National Environmental Agency (NEA) that has been established under the Ministry of Environment and Spatial Planning (MESP). The Agency is responsible for monitoring and research of environmental issues, preparing and implementing the environmental regulation and for international co-operation and international environmental information exchange.

9. The 35 industry-specific Regulations define the water pollutants emission limits and related parameters. Polluters exceeding these limits have been called by the MESP/NEA to prepare recovery plans with specified deadlines in order to achieve compliance.

10. In general it can be observed, that Slovenia has prepared very well for the EU accession on the legislative level, but the aspect of industrial compliance with the new legislation (especially the financial part of it) was not taken into account carefully and systematically enough. Therefore major problems with the implementation of this legislation are present and will be encountered in the near future.

Table 1: Relevant EU Directives and National Legislation

EU Directive/Convention	*Local legislation (Official Journal nr.)*
INTERNATIONAL	
Common Water Policy (00/60/EC) Int. Conventions on Trans-boundary waters (Danube, Mediterranean Sea)	Law on Waters (12.7.2002) Ratifications laws (32/96, 1/96, 5/99, 12/98,11/92)
HORIZONTAL	
EIA – Environment Impact Assessment (85/337/EEC, 97/11/EC)	- Environment protection law (32/1993, 44/1995, 1/1996, 9/1999, 56/1999, 31/2000, 86/1999, 22/2000) - Obligation of Environment Impact Assessment (66/1996, 12/2000) - Methodology for E.I.A. Reporting (70/1996) - Ratification of cross-border impact Convention (11/1998)
IPPC - Integrated Pollution Prevention and Control (96/61/EC, 99/391/EC, 00/479/EC)	- Not available (emissions limited in individual regulations for air, water, waste, noise and radiation pollution; individual industrial regulations)
VOC - Limitation of emissions of Volatile Organic Compounds due to the use of organic solvents in certain activities and installations (99/13/EC)	- Not available (emissions partly limited in air-pollution regulations)
SEVESO - Control of major-accident hazards involving dangerous substances (96/82/EC)	- Communication on natural and other accidents (42/2000) - Organisation of observation, communication and alerting (45/1997, 5/2000) - Protection and rescuing planning (48/1993) - Spatial planning law(18/1984, 15/1989, 71/1993) - Urban planning (18/84) - Law on protection against natural and other accidents (64/1994)
Voluntary participation by companies in the industrial sector in a Community eco-management and audit scheme ((EEC)1836/93, 99/314/EC, 98/443))	- Not available (ISO 14001 is used)
ECOLABEL: Community eco-label award scheme (EC/1980/00) and individual product-group regulations: 93/326/EEC, 93/517/EEC, 94/10/EC, (96/703/EEC), (98/94/EC), (98/483/EC), (98/488/EC), (99/10/EC), (99/178/EC), (99/179/EC), (99/427/EC), (99/476/EC), (99/554/EC), (99/568/EC), (99/205/EC), (99/698/EC), (94/924/E), (94/925/EC), (96/461/EC), (96/304/EC)	- Not available
CHEMICALS: Classification, packaging and labelling of dangerous substances (67/548EEC, 93/72/EEC), Evaluation and control of the risks of existing substances (EC/793/93), Export and import of certain dangerous chemicals (EC)2455/92)	(27 regulations for individual substances)
WASTE WATER DIRECTIVES	
Pollution caused by certain dangerous substances discharged into the aquatic environment (76/464/EEC) and related directives on emission of special substances like Mercury (82/176/EEC, 84/156/EEC), Cadmium (83/513/EEC), Hexachlorocyclohexane (84/491/EEC), discharges of substances included in list I of the Annex to Directive 76/464/EEC (86/280/EEC, 88/347/EEC, 90/415/EEC)	(35 industry specific regulations)
Quality of bathing water (76/160/EEC)	- Not available (only regulation on bathing water quality in urban recreation centres)
Urban waste-water treatment (91/271/EEC)	- Emissions of waste water from urban WWTPs (35/96,90/98) …
Protection of waters against pollution caused by nitrates from agricultural sources (91/676/EEC)	- Regulation on dangerous substances and plant nutrients in agriculture (68/96) - Operational monitoring of dangerous substances and plant nutrients in agriculture (55/97) - Limits and critical levels of dangerous substances in the ground (68/96) - Instruction for use of good agricultural praxis at fertilising (34/2000)
Other	- Water pollution tax (41/95, 44/95, 8/96, 124/00, ..., 14/97, 15/98, 13/01, 125/00) - Operational waste-water monitoring report format (22/98, 1/01, 35/96, 29/00)

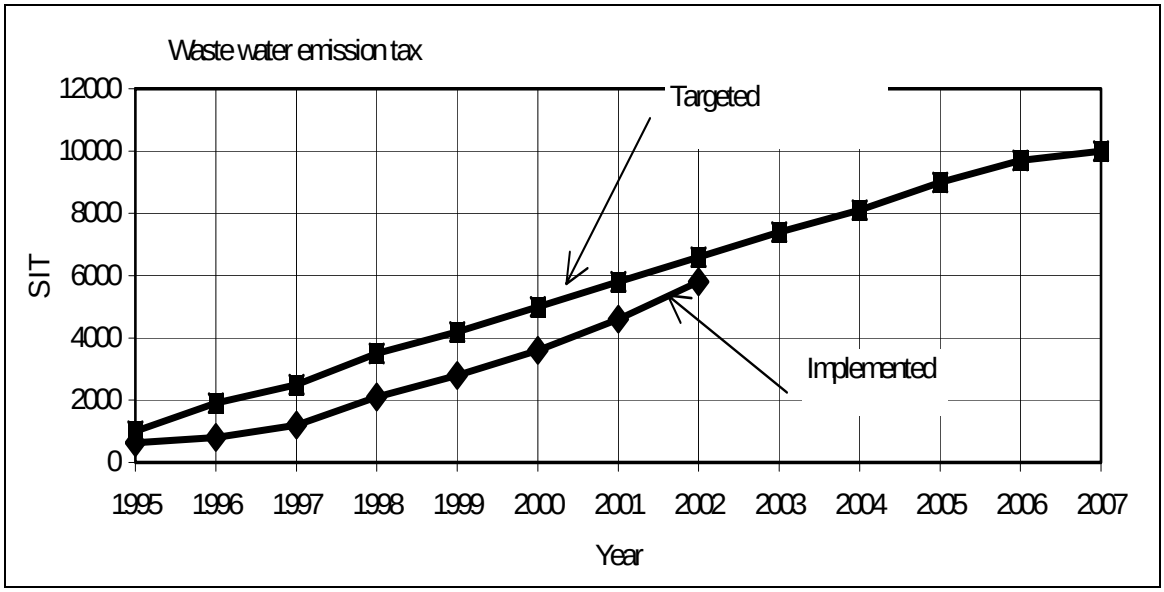
Taxation System Status and Development

11. The taxation system related to industrial water consumption, emissions and pollution is divided into different categories: Water pollution tax, water consumption/emission fees and WWTP fees.

Waste Water Emission Tax

12. The waste water emission tax is defined in units of Population equivalent (PE), measured at the river outflow (after the treatment). This tax is being raised at a rate of 30-40% per year; in 2002 it is set to around EUR 26 per PE. Additionally, the number of listed parameters defining the PE is also increasing, meaning that the total payable tax and number of monitoring/tax - binders is also increasing. In subsequent years it is expected that the PE-tax will have increasing rates in order to catch-up with the targeted amounts (see Figure 1). In principle, and in the long term, the target tax amount is set so as to cover the costs of waste water treatment.

Figure 1: Waste Water Emission Tax



13. This tax can be reduced or avoided by investment in pollution reduction, either as process optimisation and waste minimisation, or by 'end-of-pipe' cleaning process. Table 2 gives the totals on water taxation and reductions (investments) in the industry sector. With the presumption that the industry would again invest 60% of the total taxed value in 2001, EUR 14 million is expected to be invested in the following period. The NEA agency reports that 30 applications for tax reductions have been received so far this year. Recently this tax reduction was taken into the framework of State-Aid Regulations, meaning that only 15-40% of total (proved and approved) investment value can be used for such tax reduction (see section 0). This has drastically limited the 'own-funding' possibilities for industry. The State Aid Regulations do

not apply to public sector investments (WWTPs) and this is reflected in the reported reinvestment ratio of this sector (~100%).

Table 2: Waste Water Emission Tax Collection and Reinvestment

Industry sector				*Municipal (population) sector*		
Year	*Total PE*	*Total tax (EUR m)*	*Reinvested - tax reduced by (in EUR m)*	*Total PEs*	*Total tax (EUR m)*	*Reinvested - tax reduced by (in EUR m)*
1997	932,585	6.2	3.5 (57%)	1,759,784	11.7	11.7 (100%)
1999	875,384	12.5	7.8 (62%)	1,796,874	25.6	25.6 (100%)
2001[1]	926,974	25.0				

Water Consumption/Emission Fees

Water Supply System

14. Water consumption and emission fees are set and collected by individual municipal water supply service providers. The prices have continuously risen; recently even by ~40% in some areas (Koper, Kranj, Celje, Ljubljana), mostly due to the levy of additional state taxes. The background for the raises was seen as fiscal rather than environmental. As a general orientation, a total price of ~ EUR 1.2/m^3 would be a good estimate for the municipal water system supply for industrial users.

Natural Sources

15. Recently enforced Law on Water Resources is regulating the direct usage of natural water sources (wells, springs, streams). This law raised the water consumption fee by more than 100% to ~ EUR 0.05/m^3.

Waste-Water-Treatment-Plant (WWTP) Fees

16. The WWTPs are in public (municipal) ownership as a rule, but the fees charged to WWTP users differ very much from case to case and would very much depend on individual agreements with industrial users. Fees can be based on water consumption and/or emission volume, pollution intensity or even as a fixed fee.

Water Quality Status and Industrial Pollution Monitoring

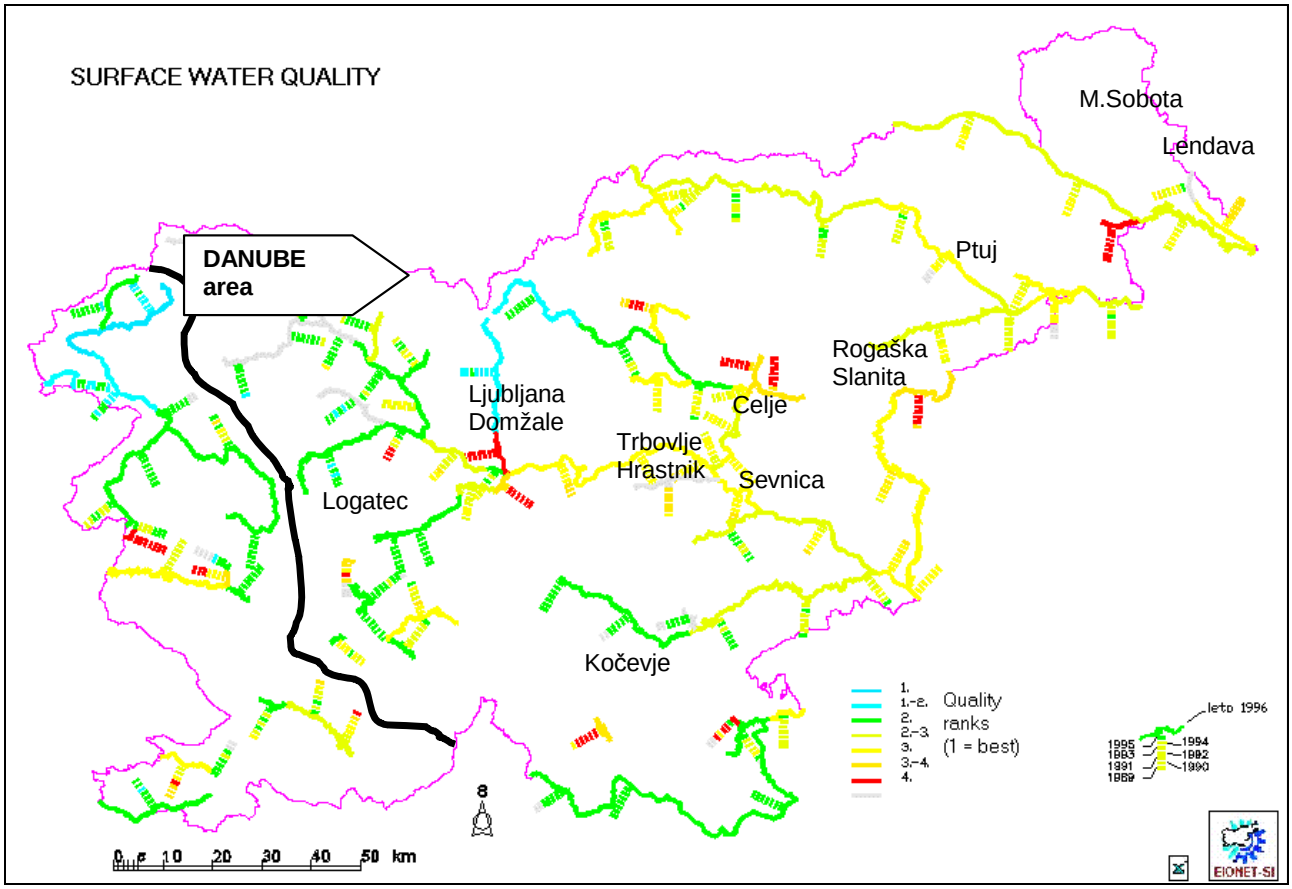
Water Quality Status

17. The NEA monitoring reports give the following critical areas for underground and surface water in the Danube area:

[1] Data for 2001 are estimations as the tax is collected and reported during the following year (2002).

– Underground water (polluted mainly with Pesticides and Nitrates from agriculture): Celje, Ptuj, Murska Sobota, Lendava
– Surface water (polluted mainly with industrial emissions):
– Murska Sobota, Domžale, Ljubljana, Rogaška Slatina, Kočevje, Logatec, Trbovlje.

Figure 2: Surface Water Quality Ranking



Industrial Pollution Monitoring

18. Industry specific lists of pollutants serve as a basis for regular monitoring. On-site monitoring may take place several times in a year, depending on waste water volume and pollution intensity. The monitoring is undertaken by authorised entities (experts), who produce yearly reports specifying the amount of each individual pollutant, transforming these into a uniform population equivalent (PE) which serves as the general pollution evaluation equivalent and as a taxation basis for the next year. The monitoring costs are borne entirely by the SME side and would depend on the number of pollutants to be tested. The normal fee for one monitoring exercise would be estimated at EUR 500-1.000.

19. The MESP is gradually adding new elements to the parameters on the monitoring lists. In many cases this causes additional and unnecessary cost as a company has to order and pay the test for non-existing parameters in their process (or apply for dispensation).

20. The recently published draft national Report on Environment Status summarises the main pollution elements caused by individual industrial processes (Table 3).

Table 3: Main Water Pollutants and Industrial Sources

Pollutants	**Industry**
Non-dissoluble substances	Pulp & Paper, Printing (55%) Energetic materials (11%)
Chemical Oxygen Demand (KPK / COD)	Pulp & Paper, Printing (76%) Food & Beverages (12%)
Phosphorus	Food & Beverages (47%) Pulp & Paper, Printing (19%)
Nitride Nitrogen (Nox-N)	Metals (81%) Food & Beverages (13%)
Ammonia Nitrogen (NH_4-N)	Leather processing (35%) Chemicals (37%)
Heavy Metals (Zn, Ni, Cu, Cr, Hg, Cd, Pb)	Metals (50%) Chemicals (24%) Leather processing (12%)

C. CREDIT FACILITIES AND TECHNICAL ASSISTANCE AVAILABLE

State Aid Regulations

21. In 2000, the State Aid Regulations were accepted with defined limitations for different types of projects and Public (State and Municipal) Aid. The Regulations are in line with EU Accession Agreement.

22. Upper limits of State Aid as percentage of justifiable costs[2]:

- For complying with environmental standards — 15% for Large Enterprises; 25% for SMEs
- For establishing higher environmental standards than prescribed — 30% for Large Enterprises; 40% for SMEs

[2] "Justifiable costs" are defined as: investments, additional premises and related equipment, damage recovery costs, training and consulting, additional waste management costs, environmental taxes.

Enterprise size classification as defined in the S.A.R. (different from definitions in general Slovene regulations – see "Scope of (Re)definition" Section below):

- Small enterprise: Less then 50 employees
  Net sales income less than EUR 7 million
  Independent enterprise (… large enterprise ownership less than 25%; this limit may be exceeded if 'no active ownership policy is conducted')
- Medium size enterprise: Less then 250 employees
  Net sales income less than EUR 40 million
  Independent enterprise (… same as above)
- Large enterprise: Neither 'Small' or 'Medium'

23. The state aid limitations apply to single investment/project (the aids do not add-up for different projects).

24. The contacted government officials confirm that these Regulations apply to National (State & Municipal budget) aid sources and not to international sources (the official confirmation of this is said to be already submitted to the EBRD).

25. The S.A.R. may apply if the funds are channelled through intermediate governmental institutions!

Environmental Development Fund ('Eco-Fund')

26. This public and non-profit Fund was established in 1994, providing loans for environmental investment projects both for local infrastructure (public sector) and for industry. The fund does not provide professional assistance with technical and investment documentation.

27. Fund staff performs environmental and banking evaluation of applications, which have to include the assessment of environmental impact beforehand.

28. In December 2001 the Fund gained a further EUR 10 million credit from European Investment Bank. Fund repayment terms are over 10 years, with a moratorium for 1 year. The Fund shall operate until Sep 2004. The EIB would co-finance up to 50% of each individual loan, the ECO-Fund up to 20%.

29. The Fund has disbursed the following amounts (EUR m):

Table 4. Disbursements of the Eco-Fund

Year	*Total*	*Total industry*	*Industry/ Water*	*Industry/ waste mgmt*	*Industry/ other (techn.)*	*No. of loans*
1996	4	1	0	0	0	5
1997	8	0	0	0	0	5
1998	9	2	1	1	1	28
1999	19	10	2	3	5	15
2000	28	18	4	4	9	18
2001	17	7	3	1	3	
Total EUR m	**85**	**38**	**10**	**9**	**19**	

30. Companies benefited from the fund in the recent period: Gorenje, Vipap, Comet, Color, LPP, Koto, MLM, KG Rakičan.

31. The fund has issued 16 public tenders in the period 1996-2001 and undertaken some 450 projects/loans. Details on the currently open public tender:

- Total funds available: SIT 4,000 million (EUR 17.7 million)
- Open to both public and private sector
- Investment time frame: 1.10.2001 to 31.12.2003
- Minimal creditworthiness rank: C
- Repayment terms: max 15 years, incl. moratorium of max 2 years
- Insurance instruments: various, but very secure
- Interest rates:
  - TOM[3] + 1.5% (1,6% for less secure insurance instruments);
  - TOM + 1.0% in the areas of natural parks, regardless the insurance instruments
- The applicant shall provide the complete project documentation including all necessary public permits and assessment of environmental impact.
- The loan shall cover 40-70% of the total investment or max. SIT 1,000 million (EUR 4.4 million). The exact percentage is defined on the following criteria (25 points is minimal eligibility criteria):
  - Environmental impact (natural parks, sensitive areas, pollution reduction rate): max 40 points
  - Environmental criteria (sustainable development, integral approach, international obligations, national enviro. programme priority): max 30 points
  - Relevant technological solution: max 20 points
  - project readiness (own funds availability, ready to start): max 10 points
- Fixed application costs (general terms):
  - application fee EUR 95
  - contract signature fee 0.2% or min. EUR 250
  - funds reservation fee 0.002% of not-used funds /day or min. EUR 4.5/day
  - loan accounting fee EUR 6 /month
  - event. early repayment fee 1% of returned value of the loan or min. EUR 45

[3] TOM = "Basic interest rate", in principle covering the inflation rate (defined for each month).

32. In general, the attitude of industrial borrowers is positive about the interest rates offered but negative about extensive documentation preparation costs. At application (or at least before the approval) complete engineering and construction documentation would have to be ready, including the professional assessment of environmental impact. In addition, extensive 'proof of benefit' activity is required during and after the project. Some SMEs experienced up to three times higher application costs for the Fund, compared with commercial loans.

Commercial Banks

33. Lately the local banks offer is getting close to competitive foreign banks money supply. The borrower can count on TOM+5-6% interest rate which can be dropped down to TOM+3% (1.5% when credit is linked to EUR currency). Class A client can count on very low credit costs and it can be approved even without any warranties. In any case extensive documentation preparation is not necessary in this case.

34. Current (official) offer of *Nova Ljubljanska Banka* for long-term (1-7 years) loan conditions:

- Interest rate: 5.5-10.25%
- Application costs: 0.5-1.25% of total value or EUR 130 – 13,300
- Warranty instruments: deposit, third-party warranty, hypothecs, etc.

35. Each loan condition is in principle agreed individually and would depend on any previous arrangements with the bank, and on creditworthiness, etc.

Environmental Reservations

36. During the privatisation process the companies with environmental problems were obliged to include the eco-restructuring programme in their privatisation/restructuring plans. For this purpose they have formed long-term financial reservations in their Balance Sheets for environmental investments and/or waste removal (1993). The individual deadlines were set for using those reservations. In 2001 the Ministry of Finance has required the reports on usage of those funds. If they were not used, the company had to prepare a new programme, otherwise the dismissal was required. The MESP, in co-operation with the Ministry of Finance - is still in the process of consolidating and clarifying the situation regarding those reservations. The situation is not clear as formal status of 109 such companies has been changed several times in the period since 1993.

EU Funds Support

SAPARD

37. Beside the direction for agricultural and rural development projects, the SAPARD support (subsidy) is also available for technology related investments in food (meat and milk) processing industry. EUR 2.2 m (of total EUR 3.6 m) is currently available for this industry. The Agency for Agricultural Markets and Rural Development (AAMRD) within the Ministry of Agriculture, Forestry and Wood (MAFW) is implementing the SAPARD Programme since

January 2002. The Agency reports that 10 applications have been received so far and they estimate that the funds would be sufficient for some 25-30 projects.

38. The applicant company can count on a subsidy of up to 35% of total investment value. This support is seen as very convenient, but problems with extensive documentation preparation are again encountered. Also the required 12% ROI rate represents quite high margin for the industrial investors, especially those from the meat- and milk processing industry.

PHARE

39. Two projects are currently in the preparation phases (Project Fiche published) and are expected to be tendered in the near future:

- *"ECO-ADRIA, Ecological improvement of the Primorska region"*, Desiree Number SI0108.01
- *"Strengthening Slovenia on the Local Level"*, Desiree Number SI2001.06.01

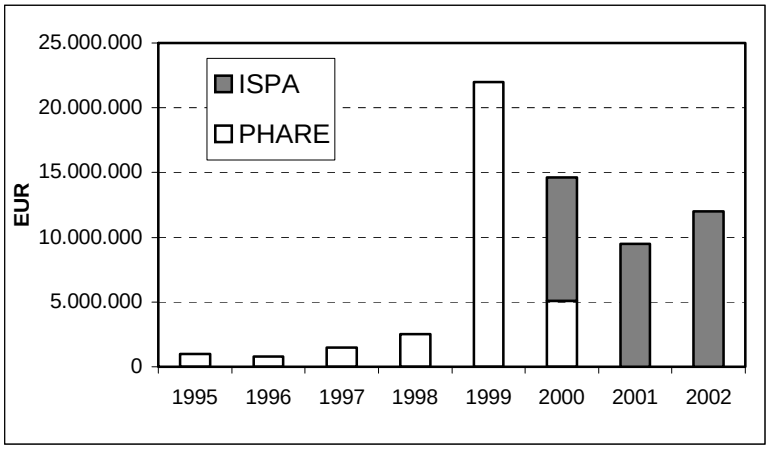
40. The Project no.1 is aimed at supporting the sewerage and WWTP system development in "non-Danube" region, covering river basins out-flowing into the Adriatic Sea.

41. The project no.2 contains a grant scheme component for regional infrastructure development. A total of EUR 1,575,000 will be provided as 20% grant for small WWTPs (500 – 2,000 PE) and water supply systems in underdeveloped and sensitive areas. The implementing authorities are the Ministry of Economy and National Agency for Regional Development. The smaller local municipalities with ready-to-go projects are eligible for support.

ISPA

42. The ISPA Fund can be accessed to co-finance larger municipal WWTPs with the minimal capacity of 15,000 PE. Funding of EUR 10 million is approved for Slovenia on a yearly basis.

Table 5. EU Funds Used for Environment Related Investments



The "Clean Production" Project

43. The Chamber (CCIS) and the two Ministries (MoE and MESP) have initiated the "Clean Production" project. For a fee of some EUR 2,500 per company the project provides 10 workshops and individual in-company consulting in the area of implementation of "cleaner" production technologies and other process improvements. The project is lead by experts from Liveo d.o.o. (local environmental-consulting company), Kemijski Inštitut Ljubljana (public research institute) and Stenum GmbH (Austrian environmental-consulting company).

44. The project was recently completed with the first set of 13 companies, reporting that they estimate in total EUR 6.5 million annual savings in different areas (EUR 1 million as water consumption savings). The following companies participated:

45. Etra 33 (metal), Iskra avtoelektrika (metal), Vega (metal), Hipot-Hyb (electronics), Litostroj (metal), Livar (metal), Termo (chemistry), Termoelektrarna Trbovlje (power plant), Paloma (pulp&paper), Goričane (pulp&paper), Industrija Usnja Vrhnika (leader processing), Nafta Lendava (oil), Tom (textile).

46. Currently the follow-up Programme tender is open and another 10 companies applied so far.

Environment Management Systems ISO 14.000

Table 6. Number of ISO 14000 Certified Companies

Year	Services	Production	**Total**	Small enterprises
1997		2	**2**	
1998	2	6	**8**	3
1999	3	10	**13**	2
2000	16	48	**64**	18
2001	14	35	**49**	13
Total	**35**	**101**	**136**	**36**

47. Implementation is usually assisted by a professional expert/consultant. The consultants are mostly recruited (retrained) from the ISO 9000 specialists. In 1999-2000 the Ministry of Economy (MoE) supported the implementation of environmental projects, especially the ISO 14.000 implementation. 94 companies have been supported by this Programme in 1999-2000. Since 2001, this support is not available. Currently only the BAS Programme can support this type of business advice, providing that the beneficiary company management shows commitment to apply and implement the results. In general the BAS Programme has the impression that that typical ISO 14,000 implementation would be more aimed at public image of the company than at essential operational benefits.

Professional Advice and Support

48. In general, the environmental investments require three kinds of supporting services: Research, Advisory service and Engineering/Installation of equipment. Both basic research activities and engineering services are well available in the country. Research studies are performed in institutes like IJS (Institute Jožef Stefan), KI (National Institute for Chemistry) and both Universities. Also a number of engineering bureaus are qualified and active in dealing with environmental installations, especially with the end-of-pipe treatments.

49. On the other hand, professional and practical advisory service is needed in the companies - especially in the phases of preparing draft feasibility studies for good decision making process. This support is in general not expected from scientific researchers or distributors of equipment, but from experienced industrial advisors. To find out the level and availability of such support, this issue was included in direct contacts with the sample companies contacted for this study. The table below shows a sample of people that were recommended for good experience by contacted companies, as well as personal contacts established within the BAS Programme. Their CVs and Company profiles have been obtained during this study.

Table 7. Sample of Professionals that can be Utilized as Industrial Advisors for the Facility

Organization	*Name (contact)*	*Address*	*Place*	*Tel*	*e-mail*
Liveo d.o.o.	Lešnjak Mirko	Stegne 7	Ljubljana	+386 (0)41 768 463	mirko.lesnjak@liveo.si
Erico	(Zapušek Alenka)	Koroška 58	Velenje	+386 (0)3 898 1956	alenka.zapusek@erico.si
Envita d.o.o.	Gantar Anton	Tržaška 132	Ljubljana	+386 (0)1 422 81 05	envita@siol.net
Triangel	Mikuž Franci	Bevkova 16	Ajdovščina	+386 (0)41 66 25 34	triangel.mikuz@siol.net
Bitenc Consulting	Bitenc Alojz	Polanškova 38	Ljubljana	+386 (0)41 227 194	alojz.bitenc@siol.net
Ekološki Inženjering d.o.o.	Šoljan Vice	Ive Andrića 76	Poreč (Cro)	+385 (0)52 432 657	vice.soljan@ekoing.hr
Gorenje d.d.	Fece Vilma	Partizanska 12	Velenje	+385 (0)3 899 10 00	vilma.fece@gorenje.si
Institut za Ekološki Inženiring	Krajnc Uroš	Ljubljanska ul. 9/VII	Maribor	+386 (0)2 300 48 11	uros.krajnc@iei.si
Okoljsko svetovanje	Markun Alenka	Koritno 46a	Bled	+386 (0)31 692 833	marbo.bled@siol.net
Schäffer Consult	Šefer Edvard	Gradiškova 13	Straža	+386 (0)7 384 7180	
University of Maribor	Đonlagić Jelka	Sernčeva ul. 5	Maribor	+386 (0)41 969 850	
Institut Josef Stefan	Kontič Branko	Jamova 39	Ljubljana	+386 (0)1 477 3791	branko.kontic@ijs.si
Ka-Eko d.o.o.	(Velimirović Dejan)	Ljudevita Šestića 2	Karlovac (Cro)	+385 (0)99 50 4853	ka-eko@ka.hinet.hr

D. INVESTMENT DEMAND ASSESSMENT

Public Sector (Municipal Waste Water Treatment Plants)

50. The EU has approved a 10-year transition period for construction of public WWTPs and sewerage systems according to the National Plan for Construction of WWTPs, sewerage- and water supply systems. This plan consists of two phases: Phase I will provide treatment of 60% of all waste waters (1.5 million PE) by 2006, the rest – covered by smaller WWTPs - is included in the Phase II with the final deadline in 2010.

51. Table 8 summarises the investments planned by Phase I in the Danube Area. Most of the Phase I investments will take place in the period 2003-2006. The National Plan gives the expected financing sources plan as percentage of the total figures (See Table 9). The last column of this table calculates the expected totals for the Phase I investments. The 'Other sources' denotes the non-defined (lacked) sources for the implementation of the Plan. Private sector and foreign investors are expected to cover this gap.

Table 8. Phase I of National WWTP and Sewerage System Plan (Danube area)

Area/Basin	*Location*	*total PE*	*Due year*	*EUR m*
Upper Sava	Bohinjska Bistrica, Radovljica	41,000	2005	15.00
Upper Sava	Kranjska Gora	6,500	2003	9.59
Upper Sava	Tržič	20,000	2006	11.80
Middle Sava	Ljubljana	420,000	2004	109.50
Middle Sava	Vrhnika	20,000	2006	20.40
Middle Sava	Litija, Zagorje, Trbovlje, Hrastnik	65,000	2006	25.49
Savinja-Sotla	Velenje	50,000	2004	16.50
Savinja-Sotla	Celje	70,000	2003	20.80
Lower Sava	Sevnica, Krško, Brežice	40,000	2006	22.00
Sotla	Rogaška Slatina	12,000	2005	16.00
Mura	Murska Sobota	45,000	2004	9.20
Mura	Lendava	45,000	2001	13.03
Drava	Maribor	200000	2002	52.00
Drava	Dravograd, Mislinja, Slovenj Gradec	31,500	2004	16.88
Drava	Ptuj	105,000	2006	24.30
Total		**1,171,000**		**383.00**

Table 9. Phase I - Estimated Financing Sources

Financing source	*Percent*	***EUR m***
Water pollution tax	40.0%	153.0
State budget	3.5%	13.4
Municipal sources	10.0%	38.2
Foreign donors	12.5%	47.8
'Other sources'	**34.0%**	**130.0**

52. In the Phase II large number of smaller WWTPs will be constructed with total value of ~EUR 210 million (Danube area). 63% of the total is expected to be covered by Water Pollution Tax, 19% from the State Budget and 18% from the Municipal Budgets.

53. Apart from the defined missing financing sources, Municipal investment ability is seen as the most unreliable as local administrations have very limited investment funds, additionally their borrowing ability is limited at max. 10% of the total budget (by law). Therefore it can be reasonably expected that at least half of estimated Municipality sources would have to be replaced by additional funding. Therefore the total demand for the facility can be summarised as follows:

- Total investment demand of public sector in the Danube area:

Phase I	EUR 383 m
Phase II	EUR 210 m
TOTAL	**EUR 593 m**

- Total expected investment demand for the Facility:

Phase I (2003 - 2006)	
Missing sources (34% of the EUR 383 million)	EUR 130 m
½ municipal share	EUR 19 m
Phase II (2006 - 2010)	
½ municipal share (9% of EUR 210 million)	EUR 19 m
TOTAL	**EUR 168 m**

Industrial Sector

54. The main characteristic of the industrial sector is lack of any reliable data or structured information on environment related investment requirements. For the purpose of this study some reports on the 'IPPC' directive implementation were used and the list of water pollution monitoring binders provided by the NEA Agency.

IPPC - Binders' Information

55. The IPPC (Integrated Pollution Prevention and Control) Directive currently applies to 130 (larger) Slovene enterprises. Most of them will have to get the 'Integral Environmental Permit' before the end of the transition period prescribed by the Directive: i.e. October 2007. As a result of the Accession negotiation process, for 15 companies the transition period is extended until September 2011. The Integral Environment Permit is linked to the implementation of BAT – Best Available Techniques described in some 30 (industry specific) "BREF" reference documents, issued by the European IPPC Bureau. Twelve of them are currently accepted and valid[4], the rest are in draft versions. The Chamber (CCIS) is active in promotion and awareness-raising of potential users of BREFs.

[4] Pulp & Paper, Steel, Concrete, Cooling equipment, Electrolysis, Metals mining, Glass, Leader proc., Refineries, Large scale organic chemicals, Waste water treatment in chemical sector.

56. Estimates of total investment demand for compliance of those companies are unreliable, and vary between EUR 180 and 550 million. The Pulp & Paper industry is the only one that has expressed its investment needs more accurately: EUR127 million. These estimates apply to the total investments to comply with the Directive (all pollution components); waste water related investments are not analysed separately in any estimation available.

Waste Water Monitoring Information

57. The reported PE on the list of monitoring-binders does not reflect the exact pollution value at the point of emission, but at the point of discharge into the river. This means that in the case of connection to municipal Waste Water Treatment Plant (WWTP) the figure represents the value only after the WWTP treatment.

Scope of (Re)definition

58. The first intention was to investigate the investment requirements among SMEs as classified in the local legislation. This scope was later on extended to large companies (based on the same classification), for the following reasons:

- The local classification of SMEs sets relatively low size limits as definition of SME (two of three size criteria: 250 employees, EUR 18 million, assets EUR 9 million);
- The vast majority of polluters and potential Facility clients are classified above this limit, although they are relatively small from the EU markets perspective;
- The current awareness level and also environmental investment requirements of smaller companies is very low what was also confirmed during this investigation.

59. As the main objective of the Facility is to bring tangible environmental impacts, this study was continued with sampling of companies of various sizes.

Demand Assessment

60. Described methodology contains various simplifications that could only be avoided by much wider sampling activity. This was not possible due to limited time available.

61. Part of this investigation was performed as subcontracting work by Mr. Alojz Bitenc, independent consultant for Quality- and Environmental Management Systems in industry. He has also been qualified as BAS consultant with two successful projects within the Programme.

62. The industrial water pollution monitoring list was updated with the information on geographical locations, industries/businesses, and number of employees. Various exclusions were made based on existing knowledge on various ownership linkages between the listed companies, and based on information gathered by direct contacts with a number of companies.

63. The target population of potential investors was defined and analysed in the total Danube area of Slovenia (See Table 11). Then limited number of companies (~70) were selected for direct approach and invited in writing to co-operate. With additional encouraging by telephone contacts, 36 companies were approached by direct visits and interviews with relevant employees and/or management teams. Basic information was collected for both purposes: (i) extrapolation to the total population and (ii) creating the pipeline of potential clients for the Facility. The companies contacted and the summary of their investment demand is listed in Table 12.

64. For the extrapolation, the number of companies, PEs and number of employees were compared between the sample and the total population. The average ratios of these three factors were then used for linear extrapolation to calculate the total demand in particular area (see the "Extrapolation-Local" column in Table 13 and Table 14). Finally, the same calculation and averaging was used in comparing the local area/basin and the total population on the 'Danube' territory (See the "Extrapolation-National" columns in Table 13 and Table 14).

65. Most of the companies were selected in two areas/basins: Lower Sava (Sevnica, Krško, Brežice, Jrastnik) and Middle Sava (Ljubljana, Domžale). As each individual area/basin differs in industry spread, some samples were taken also in other areas to balance this discrepancy. Using the same method, the total demand was then extrapolated to the national level for available samples of industries. The different totals were then averaged for each industry, with some corrections based on additional industry related information collected during the individual interviews.

66. Final results are shown below:

Table 10. Final Results of the Demand Survey

Industry	*Total demand EUR m*
Agriculture	6
Chemistry	73
Food & Beverages	54
Metal & Electro	20
Pulp & Paper	116
Service & Retail	6
Textile	78
Wood processing	6
Other manufacturing	25
TOTAL	**EUR 384 m**

Table 11. Selected Population of Industrial Water Polluters - Part 1 (continued in the next table)

	Area											
	Drava			Kolpa			Lower Sava			Middle Sava		
Industry / Business	Comp.	PE	Empl	Comp.	PE	Empl	Comp.	PE	Empl	Comp.	PE	Empl
Agriculture				3	1,510	301				1	1,911	92
Agriculture / Live stock	1	2,223	341							2	15,059	120
Chemistry	5	3,435	1,528	2	131	429	7	4,018	3,626	16	43,980	5,676
Construction	5	486	1,600							1	70	161
Energetics							2	223	947	1	391	320
Food & Bev.	6	2,373	679				1	174	70	4	36,891	1,621
Food & Bev. / Beverage	2	1,188	384				2	1,702	332	2	3,047	168
Food & Bev. / Diary & milk products										1	32,883	1,150
Food & Bev. / Meat processing	3	5,035	1,676				1	252	110	5	8,147	1,557
Metal & Electro	33	6,251	11,502	3	414	2,503	3	1,249	3,458	19	2,425	4,964
Other manufacturing	12	2,005	4,561				10	1,117	3,224	16	4,803	4,569
Pulp & Paper							2	476,770	1,390	5	10,202	1,206
Service & Retail	5	631	545	2	14	121	1	108	1,146	9	2,928	5,019
Service & Retail / Laundry & tex. cleaning	2	75	50							2	226	183
Service & Retail / Tourism							1	467	330			
Textile	7	2,923	1,146	1	2,799	480	2	1,619	379	8	3,487	1,667
Transport	2	1,993	752	1	8	93				2	811	1,464
Wood processing	2	104	229							2	112	153
Wood processing / Furniture	1	88	364	1	221	572	3	475	984	4	369	1,533
Wood processing / Windows & doors				1	159	520				1	16	645
Grand Total	86	28,810	25,357	14	5,256	5,019	35	488,174	15,996	101	167,758	32,268

Table 11. Selected Population of Industrial Water Polluters - Part 1 (continued from the previous table)

	Area											
	Mura			Savinja-Sotla			Upper Sava			**Total Comp.**	**Total PEs**	**Total Empl**
Industry / Business	Comp.	PEs	Empl	Comp.	PEs	Empl	Comp.	PEs	Empl			
Agriculture							1	86	25	**5**	**3,507**	**418**
Agriculture / Live stock	2	48,749	324							**5**	**66,031**	**785**
Chemistry	2	8,541	892	3	2,594	1,791	3	159	75	**38**	**62,858**	**14,017**
Construction							2	335	470	**8**	**891**	**2,231**
Energetics				1	439	603				**4**	**1,053**	**1,870**
Food & Bev.				2	5,665	268	3	2,143	525	**16**	**47,246**	**3,163**
Food & Bev. / Beverage	4	5,070	799	1	20,184	455				**11**	**31,191**	**2,138**
Food & Bev. / Diary & milk products	2	4,222	304	1	2,680	172				**4**	**39,785**	**1,626**
Food & Bev. / Meat processing	2	3,836	447	3	5,312	487	1	210	38	**15**	**22,792**	**4,315**
Metal & Electro	4	131	610	9	3,894	7,780	18	15,064	9,532	**89**	**29,428**	**40,349**
Other manufacturing	2	141	151	9	1,731	5,400	10	1,544	4,053	**59**	**11,341**	**21,958**
Pulp & Paper	3	59,763	1,602	1	211	470	1	202	100	**12**	**547,148**	**4,768**
Service & Retail	2	21	66	2	386	139	5	170	355	**26**	**4,258**	**7,391**
Service & Retail / Laundry & tex. cleaning				1	606	82	2	26	64	**7**	**933**	**379**
Service & Retail / Tourism	3	919	806	1	141	227				**5**	**1,527**	**1,363**
Textile	1	1,016	60	3	4,752	1,692	9	3,316	3,011	**31**	**19,912**	**8,435**
Transport	1	47	96				2	775	484	**8**	**3,634**	**2,889**
Wood processing				1	72	143	1	1	26	**6**	**289**	**551**
Wood processing / Furniture				1	175	730	1	344	868	**11**	**1,672**	**5,051**
Wood processing / Windows & doors							1	110	620	**3**	**285**	**1,785**
TOTAL	**28**	**132,456**	**6,157**	**39**	**48,842**	**20,439**	**60**	**24,485**	**20,246**	**363**	**895,781**	**125,482**

Table 12. Sample Population of Potential Clients for the Facility

Area/Basin	*PE*	*Empl.*	*Company*	*Industry / Business*	*Type*	*EUR m*	*Status*
Drava	200	89	Ecolab d.o.o.	Chemistry	Process	0.3	ready
Drava	177	400	TDR - METALURGIJA d.d.	Chemistry	Process	0.45	idea
Kolpa	92	195	MELAMIN KEMIČNA TOVARNA d.d. KOČEVJE	Chemistry	End-of-Pipe	0.5	ready
Lower Sava	20	160	AKRIPOL d.d.	Chemistry	Process	0.1	Idea
Lower Sava	400	113	TANIN d.d.	Chemistry	End-of-Pipe	0.9	draft
Lower Sava	174	70	Greda d.o.o.	Food & Bev.	End-of-Pipe	0.06	draft
Lower Sava	632	153	DANA d.d.	Food & Bev. / Beverage	End-of-Pipe	0.1	idea
Lower Sava	1,070	179	VINO BREŽICE d.d.	Food & Bev. / Beverage	Process	1	ready
Lower Sava	252	110	KMEČKA ZADRUGA SEVNICA z.o.o.	Food & Bev. / Meat processing	End-of-Pipe	0.4	draft
Lower Sava	380	1,000	STEKLARNA HRASTNIK d.d.	Other manufacturing	Process	0.25	draft
Lower Sava	467	330	TERME ČATEŽ d.d.	Service & Retail / Tourism	End-of-Pipe	0.5	draft
Lower Sava	827	106	INPLET PLETIVA d.d.	Textile	Combined	4	draft
Lower Sava	792	273	NOVOTEKS TKANINA d.d.	Textile	End-of-Pipe	0.35	idea
Lower Sava	72	194	STILLES d.d.	Wood processing / Furniture	Process	0.3	ready
Middle Sava	14,723	84	EMONA FARMA IHAN D.D.	Agriculture / Live stock	End-of-Pipe	1	draft
Middle Sava	1,132	116	BELINKA PERKEMIJA d.o.o.	Chemistry	Combined	0.5	ready
Middle Sava	104	400	COLOR d.d.	Chemistry	End-of-Pipe	2	draft
Middle Sava	120	420	HELIOS d.d.	Chemistry	End-of-Pipe	0.3	ready
Middle Sava	39,352	1,100	IUV – INDUSTRIJA USNJA VRHNIKA d.d.	Chemistry	End-of-Pipe	3	ready
Middle Sava	147	246	ETA d.d. KAMNIK	Food & Bev.	End-of-Pipe	?	draft
Middle Sava	32,883	1,150	LJUBLJANSKE MLEKARNE d.d.	Food & Bev. / Diary & milk products	Process	5	draft
Middle Sava	1,529	750	Mesnine dežele kranjske d.d.	Food & Bev. / Meat processing	Combined	0.8	ready
Middle Sava	262	160	TERMIT d.d.	Other manufacturing	End-of-Pipe	0.5	draft
Middle Sava	2,317	177	GORIČANE Tovarna Papirja Medvode d.d.	Pulp & Paper	Combined	3	draft
Middle Sava	6,021	347	PAPIRNICA VEVČE d.d.	Pulp & Paper	End-of-Pipe	5	idea
Middle Sava	102	150	PERITEKS d.o.o.	Service & Retail / Laundry & tex. cleaning	Process	0.2	idea
Middle Sava	220	504	SVILANIT TEKSTILNA TOVARNA d.d.	Textile	Process	1.8	ready
Mura	4,118	448	RADENSKA d.d.	Food & Bev. / Beverage	Combined	3.5	draft
Mura	58,000	1,305	PALOMA d.d.	Pulp & Paper	Process	2	draft
Mura	527	360	RADENSKA ZDRAVILIŠČE RADENCI D.O.O.	Service & Retail / Tourism	Process	2.2	draft
Savinja-Sotla	4,600	200	ETOL d.d.	Food & Bev.	End-of-Pipe	0.5	draft
Savinja-Sotla	1,065	68	VITAL MESTINJE d.d.	Food & Bev.	End-of-Pipe	1	draft
Savinja-Sotla	2,730	109	GRUDA JURMES d.d.	Food & Bev. / Meat processing	End-of-Pipe	0.5	draft
Savinja-Sotla	606	82	BELIN - IPP d.o.o.	Service & Retail / Laundry & tex. cleaning	Process	0.3	idea
Upper Sava	12,496	1,417	ACRONI d.o.o.	Metal & Electro	Process	5	ready
Upper Sava	542	330	ISKRA ISD d.d.	Metal & Electro	End-of-Pipe	0.5	draft
TOTALS	**189.151**	**13,295**	**36**			**47.8**	

Table 13. Sampling and Extrapolation Based on the Lower Sava Area

Lower Sava	**TOTAL**			**SAMPLE**				**Extrapolation - Local Sample size**				**Extrapolation - National Sample size**			
	Comp.	PE	Empl.	Comp.	PE	Empl.	**EUR m**	Comp.	PE	Empl.	**EUR m**	Comp.	PE	Empl.	**EUR m**
Agriculture															
Agriculture / Live stock															
Chemistry	7	4,018	3,626	2	420	273	1.00	29%	10%	8%	**8.8**	5%	1%	2%	**73.3**
Construction															
Energetics	2	223	947												
Food & Bev.	1	174	70	1	174	70	0.06	100%	100%	100%	**0.1**	6%	0%	2%	**6.7**
Food & Bev. / Beverage	2	1,702	332	2	1,702	332	1.10	100%	100%	100%	**1.1**	18%	5%	16%	**11.1**
Food & Bev. / Diary & milk products															
Food & Bev. / Meat processing	1	252	110	1	252	110	0.40	100%	100%	100%	**0.4**	7%	1%	3%	**19.3**
Metal & Electro	3	1,249	3,458												
Pulp & Paper	2	476,770	1,390												
Service & Retail	1	108	1,146												
Service & Retail / Laundry & tex. cleaning															
Service & Retail / Tourism	1	467	330	1	467	330	0.50	100%	100%	100%	**0.5**	20%	31%	24%	**2.1**
Textile	2	1,619	379	2	1,619	379	4.35	100%	100%	100%	**4.4**	6%	8%	4%	**72.6**
Transport															
Wood processing															
Wood processing / Furniture	3	475	984	1	72	194	0.30	33%	15%	20%	**1.5**	9%	4%	4%	**6.0**
Wood processing / Windows & doors															
Other manufacturing	10	1,117	3,224	1	380	1,000	0.25	10%	34%	31%	**1.3**	2%	3%	5%	**9.2**
TOTAL	**35**	**488,174**	**15,996**	**11**	**5,086**	**2,688**	**8.00**	**0**	**0**	**0**	**18.0**				**200.3**

Table 14. Sampling and Extrapolation Based on the Middle Sava Area

Middle Sava	**TOTAL**			**SAMPLE**				**Extrapolation - Local Sample size**				**Extrapolation - National Sample size**			
	Comp.	PE	Empl.	Comp.	PE	Empl.	**EUR m**	Comp.	PE	Empl.	**EUR m**	Comp.	PE	Empl.	**EUR m**
Agriculture	1	1,911	92												
Agriculture / Live stock	2	15,059	120	1	14,723	84	1.00	50%	98%	70%	**1.5**	20%	22%	11%	**6.3**
Chemistry	16	43,980	5,676	4	40,708	2,036	5.80	25%	93%	36%	**15.2**	11%	65%	15%	**34.7**
Construction	1	70	161												
Energetics	1	391	320												
Food & Bev.	4	36,891	1,621	1	147	246	0.00	25%	0%	15%	**0.0**	6%	0%	8%	**0.0**
Food & Bev. / Beverage	2	3,047	168												
Food & Bev. / Diary & milk products	1	32,883	1,150	1	32,883	1,150	5.00	100%	100%	100%	**5.0**	25%	83%	71%	**11.0**
Food & Bev. / Meat processing	5	8,147	1,557	1	1,529	750	0.80	20%	19%	48%	**3.3**	7%	7%	17%	**9.5**
Metal & Electro	19	2,425	4,964												
Pulp & Paper	5	10,202	1,206	2	8,338	524	8.00	40%	82%	43%	**16.1**	17%	2%	11%	**215.3**
Service & Retail	9	2,928	5,019												
Service & Retail / Laundry & tex. Cleaning	2	226	183	1	102	150	0.20	50%	45%	82%	**0.4**	14%	11%	40%	**1.2**
Service & Retail / Tourism															
Textile	8	3,487	1,667	1	220	504	1.80	13%	6%	30%	**16.3**	3%	1%	6%	**82.9**
Transport	2	811	1,464												
Wood processing	2	112	153												
Wood processing / Furniture	4	369	1,533												
Wood processing / Windows & doors	1	16	645												
Other manufacturing	16	4,803	4,569	1	262	160	0.50	6%	5%	4%	**10.5**	2%	2%	1%	**39.9**
TOTAL	**101**	**167,758**	**32,268**	**13**	**98,912**	**5,604**	**23.00**	**0**	**1**	**0**	**68.2**				**400.9**

Investment Peline

67. As mentioned above, the sample of 35 companies was investigated in terms of basic business profile and short description of the environmental problem they are currently facing. Not all, but most of them would represent a reasonable pipeline for start-up projects within the Facility as the projects are currently in various stages (ranging from 'idea' to 'ready-to-go'). Their borrowing ability is also different from case to case.

68. It is important to note that almost all of them would welcome a qualified advisory service related to in-process or end-of-pipe 'clean-up'.

69. In three cases (*Inplet-Pletiva, Gruda Jurmes and Vital Mestinje)* the indicative relation and inter-dependence is shown between Public and Private/Industrial sector. Those companies are ready to co-invest in the local public WWTP, provided that the plant would have appropriate capacities and it would be built soon enough. On the other hand, some companies that are already connected to such plant, are now considering their own end-of-pipe treatment simply because of financial (over)load from the public waste water treatment (*Periteks* in Domžale).

70. The sample is summarised in Table 13. Detailed company information has not been included in this Annex for confidentiality reasons.

ATTACHMENT 1: ABBREVIATIONS USED IN ANNEX 6

EU	European Union
NEA	National Environmental Agency (Agencija Republike Slovenije za Okolje)
MESP	Ministry of Environment and Spatial Planning (Ministrstvo za okolje in prostor)
WWTP	Waste Water Treatment Plant
PE	Population Equivalent (Enota Obremenitve)
EIB	European Investment Bank
IPPC	Integrated Pollution Prevention and Control
BAT	Best Available Techniques
BREF	Best Available Techniques Reference Documents
CCIS	Chamber of Commerce and Industry of Slovenia
MoE	Ministry of the Economy (Ministrstvo za Gospodarstvo)
MAFW	Ministry of Agriculture, Forestry and Wood
AAMRD	Agency for Agricultural Markets and Rural Development
KPK	COD, Chemical Oxygen Demand
BPK	BOD, Biological Oxygen Demand

GEF/SLOVENIA

REDUCING WATER POLLUTION IN THE DANUBE BASIN

ANNEX 7

STAP TECHNICAL REVIEW

ANNEX 7

STAP TECHNICAL REVIEW

A. INTRODUCTION

1. This review is made on the basis of the Project Brief, Main Report and Annexes provided as electronic documents to this Reviewer by EBRD/FAO under the GEF Operational programme Number 8: Water body-Based Operational programme.

2. The review was conducted using the published review criteria of STAP (included as the TOR for this Review and verified against criteria on the STAP website), and the text of Operational programme #8.

3. This review is also consistent with other recent reviews carried out by this Reviewer, including:

- Black Sea Ecosystem
- San Juan River Basin
- Guarani Aquifer

Note: Specific comments in this review that the proponent may wish to consider are highlighted in **bold text**.

B. OVERVIEW

4. This project focuses on the creation of a Credit Facility (CF) for Slovenia having the objective of targeted investments to accelerate the reduction of nutrients and toxic substances in the Danube River Basin (DRB). This project is part of a group of GEF and other related projects in the Danube-Black Sea basin designed to bring integrated and more effective and efficient environmental management to this area and to reduce environmental stresses to this important freshwater and marine ecosystem. The Incremental Cost Analysis (Annex 3) provides a comprehensive view of related international funding mechanisms for environmental management and pollution control in the DRB. While this project focuses on Slovenia, it aims to develop an innovative and replicable investment model for funding of specific types of pollution abatement activities at the national level, that can be used in other Danube countries. A large percentage of the land area of Slovenia falls within the Danube River catchment. A number of tributaries rise in Slovenia and several others pass through the country. All represent transboundary situations with upstream and downstream riparian consequences.

C. KEY REVIEW ISSUES

Scientific and Technical Soundness of the Project

5. This proposal focuses on a mechanism for targeted investments in transboundary pollution reduction. The main thrust of the proposal is on fiscal and institutional mechanisms and not on scientific or technical issues. Therefore, scientific and technical assessment here focuses on those limited areas (below) that have a scientific component.

6. More generally, this proposal builds upon other related technical work of the Slovenian Government and various actions taken for the DRB under the Danube River Protection Convention and which have led to this particular proposal. These actions include a transboundary diagnostic analysis, the Strategic Action Plan (SAP) and Joint Action programme (JAP); these are outside the purview of this assessment. Technical aspects of those plans and programmes include the following, but which are not considered within this proposal but can be assumed to be a valid basis for planning for this proposal.

- aquatic assessment in the DRB, including Slovenia
- evaluation of specific hotspots as target areas
- national monitoring criteria

7. Limited technical requirements exist in this proposal, including:

- monitoring of load reductions for loans under the proposed facility (Annex 5 – exact mechanism not specified, but is well known and not required in the proposal)
- monitoring of environmental impacts (Annex 5 – see below)

8. Within the technical/scientific component, I find only the three following areas that need clarification:

(i) There is some confusion in the text and annexes over the inclusion of livestock operations (a non-point source activity -- Project Brief, para 11 of the main report) , and the stated exclusion of non-point source activities and focus on industrial enterprises and wastewater treatment (para. 55 and italicized text in para. 56). **This needs to be clarified**. Further, para.11 refers to nutrient and pesticide runoff as the main issue with agriculture. For pig farming in particular, high levels of pathogens having very significant impacts on human health are a major environmental threat, but are not mentioned. **Para. 69 should include the non-point source focus of the project**.

(ii) Annex 5: This Annex is at the core of this proposal insofar as it describes how the proposed loan facility will determine if a loan request meets GEF eligibility requirements. While the criteria presented are directly linked to the objective of pollution reduction, none are specific to the determination of transboundary effects. Indeed, in science, this is very difficult to determine with any degree of precision for most polluters (there are exceptions) and especially for small to medium polluters. **EBRD/FAO need, perhaps, to give more thought to this aspect so that GEF-supported loans are linked to incremental cost criteria, even if only in a notional sense in that exact technical evaluation of incremental costs is difficult**. Two examples are provided below, however the proposal should not be fully prescriptive at this time, only cognizant of the need for development of appropriate technical criteria.

9. One example is the possibility of defining effluent reduction (for nutrients) criteria in terms of some percentage contribution to total transboundary loading which, presumably, has been calculated. This might be biased towards downstream polluters in that the assimilation of

nutrients means that the further upstream the polluter, the less transboundary impact it will have. Nevertheless, for a small area such as Slovenia, some standard calculation would be acceptable and is administratively efficient.

10. A second example is for toxics for which there is zero assimilation (only dilution through bio-uptake, sedimentation and volatilization). Therefore any reduction of toxics is, de facto, a transboundary benefit with immediate (though not quantifiable) benefits to aquatic life and human health.

Annex 5: "Monitoring of Environmental Impacts"

11. The text is largely oriented to monitoring of emissions reductions and not of environmental impact. This can be easily fixed by a change in wording to include the requirement for the proponent to include appropriate aquatic indicators of stress reduction (e.g. reduction in ambient levels of BOD; increase in dissolved oxygen; decrease in chlorophyll-a -- all of these are appropriate for nutrient reduction; for toxics, it is necessary to include some assessment of toxicity in ambient water, or by toxicity reduction assessments in the monitored effluent). All of these are technically feasible in Slovenia.

Use of Technology

12. The use of "technology" in this proposal mainly refers to the objective of using the Credit Facility to encourage investment in alternative manufacturing and processing technologies where these can be shown to be more cost effective than focusing only on treatment of effluents. The proposal outlines the rationale for this, and the criteria that will be adopted by the Credit Facility. The proposal cannot be more specific than this as any such technologies will be very specific to the specific polluting activity. There are, however, no specific guidelines as to how this assessment will be made or the criteria that would be used to make a judgement on loans for technological alternatives.

Institutional Arrangements

13. The proposal contains very specific arrangements involving FIs, other programmes and institutions such as BAS and TAM, and other relevant international and national institutions and programmes. Cofinancing options appear well thought-out and rationalized relative to other investment programmes in the region.

Other Questions

Annex 2

14. The business model put forward makes considerable sense. The investment criteria and decision steps are logical and well thought out. Additionally, it would be nice to know:

- **what impact the EBRD failure for a similar facility in Slovakia had on the development of this business model.** This should be referenced also in para 58+ in the main report. Para 66 does not indicate why this effort failed but suggests that it was a positive experience.

- As discussions with FIs have not yet taken place (para. 11 – also note improper use of last word of this para.) **some indication of likely acceptance of these arrangements would be useful** (perhaps based on previous experience of EBRD).

- (also para 34 of Main Report) Given the range of issues and technologies that will be assessed by the Environmental Expert, it is **not recommended that this be a single person or firm**. Technical analysis of process streams and alternative waste treatment options (not to mention agricultural components) is complex and will require different types of expertise. It is not, however, likely to be cost effective to engage a firm (as most companies do not maintain the range of expertise that may be needed). One model that meets the administrative needs of the Credit Facility could be as follows: if it is assumed that the majority of the applications will involve waste treatment, then one expert can be engaged to process these and to act as a conduit for assessment by others of those aspects that are beyond the individual's expertise. The range of activities of the Credit Facility is likely to require periodic involvement by up to five different types of experts. This requires that funds be kept aside to pay for those assessments that cannot be handled by the staff expert. The required external expertise should be retained on a longer term basis so that there is consistency in the overall evaluation process. Further, the group of experts (one staff environmental expert and retained experts) should meet initially to establish evaluation methodologies and criteria, and periodically to assess environmental benefits in order to recommend to the Facility a balance in the investment decisions.

Annex 3

- It is understood that the total amount of $54 million is based upon the demand study. However, it is not clear how the amount of the GEF contribution was arrived at ($9 million). Was it the result of a calculation of costs of pollution reduction to achieving specific global benefits? – or a "reasonable" value given the amount of the proposed EBRD loan to FIs – or inferred from the Demand Study – or ??? **This should be clarified** both in Annex 3 and in para. 28 of the Main Report.

- In regards to the handling of the GEF component, there seems to be a contradiction between para. 10 of Annex 3 and Annex 2. Para 10 states that the GEF funds will be blended into the EBRD loan and on-loaned to FIs . Annex 2 (Step 7 [pg.5] indicates that the GEF grant portion will be disbursed directly by EBRD (also para. 45 of main report)

Miscellaneous

15. There is little discussion of the management of the CF, staff composition, local arrangements, or costs for the operations of the Credit Facility except costs for the Environmental Expert. If this is a "virtual" facility which will be fully operated by EBRD, then this should be stated with overhead costs, if any.

16. There appears to be no issue that would involve conflict, either between institutions or between programmes.

Identification of Global Benefits

17. The difficulty of costing incremental environmental benefits is well known. However, in this case, existing international and national environmental and infrastructure programmes in the DRB are known to have, and are predicated upon, transboundary (global) benefits. The Incremental Cost Analysis (Annex 3) therefore makes the reasonable assumption that a programme of accelerating pollution control in Slovenia (this proposal) is, de facto, additive to these other programmes and, as a consequence, specifically addresses global benefits. The nature of the global environmental benefits are summarized briefly in the proposal however it is unnecessary to enter into specific dialogue on this matter due to the other GEF projects that are ongoing in the DRB-Black Sea region and for which the global benefits have already been assessed and approved by the GEF Council.

Context of GEF Goals

18. This proposal is a country-specific project but having global environmental benefits. In the Water body-Based Operational programme 8, "the GEF will play a catalytic role in assisting a group of countries seeking to leverage cofinancing ….". However, paragraph 8.10 of this Operational programme provides for:

19. "… a logical progression of GEF-funded activities – from project development to analyses of transboundary priority environmental concerns to formulation of an international water Strategic Action programme to eventual regional capacity building or country-specific investment projects."

20. This proposal represents the outcome of a set of sequential activities sponsored by the GEF and others, that now lead to country-specific assistance. Further, the objective is to create an investment model that can be replicated in other DRB countries. Therefore, I conclude that this proposal meets the GEF goals and, further, indicates that the overall progression of GEF activities can, and do, lead to practical and cost-effective solutions. In this context, Para 13 of the Main Report could be strengthened in order to avoid any confusion (refer to Para. 51 (v) which provides a good justification).

Regional Context

21. The regional context (DRB and Black Sea) is high on the GEF's regional priorities representing both a large freshwater system and a large marine ecosystem.

Replicability of the Project

22. The stated goal is to develop a model for cost-effective co-financing of pollution reduction that can be used in other DRB countries. It is noted (but not in the main text) that an earlier EBRD attempt to establish an environmental loan facility in Slovakia was not successful. Lessons learned from this should be noted in the main document.

Sustainability

23. Sustainability is addressed both in the short term (e.g. use of established and reliable banking institutions) and in the long term (longer term environmental benefits and catalytic effects of the project). Sustainability of the CF is not the issue insofar as it has a finite lifespan. Sustainability is appropriate addressed as the longer term -- sustainable benefits that the project will achieve.

24. **Comments in section #8 (above) in regards to the failed attempt in Slovakia are relevant to the risks associated with this project**.

D. SECONDARY ISSUES

Linkages to Other Focal Areas

25. The proposal is specifically targeted to pollution reduction in international waters as a follow up activity to other earlier GEF and related activities and does not, therefore, relate specifically to other GEF focal areas. To do so would be largely irrelevant and does not detract from the benefits of the proposed activity. The proposal closely relates to other programme areas of the International Waters focal area (e.g. toxics)

Linkages to Other Programmes, Actions, etc.

26. The proposal is a direct consequence of a variety of other programmes, actions, etc. taken at national and basin levels under various authorities. These are integrated via the Danube Convention and its various instruments and institutions. The proposal is sufficiently comprehensive in tracking the origins of the proposed loan facility so that there is a high level of comfort with the linkages. The integration of the loan facility with a larger loan from the EBRD is addressed. The possible consequences of the loan being considered by the Government as "State Aid" has been addressed, although clarification on this matter will be pursued with the Slovenian Ministry of Finance.

Benefits or Damaging Environmental Effects

27. The proposal is designed to produce beneficial effects. There are no direct or indirect damaging environmental effects associated with the proposal.

Degree of Stakeholder Involvement in the Project

28. Annex 4 is entirely devoted to stakeholder involvement. The proposal follows the precepts of the Aarhus Convention and the UNECE Convention of Access to Information. The plan is comprehensive and targeted to the public and to relevant institutions at local and regional levels. This Annex is well thought out and appropriately comprehensive both in terms of audience and in terms of materials and mechanisms for information dissemination.

Capacity Building

29. The proposal (Annex 2) outlines the need for providing technical assistance to local firms that request assistance to assess new technologies, or in developing loan applications and/or investment proposals. Mechanisms are identified.

30. The proposal also recognizes the need to provide assistance to FIs and the private sector in implementing these new financial modalities. Mechanisms are identified.

31. Specific technical assistance should be developed for the agricultural sector if the TAM programme does not provide this. Especially in the stated area of pig/livestock farming and effluent management, it will be valuable for the CF to provide technical guidelines on alternative ways of managing livestock effluent so that there is some consistency in the approach by agricultural enterprises to loan applications. For example, Dutch experience shows that land spreading of manure (an alternative to disposal to surface waters) can lead to serious groundwater problems and to human health impacts by contamination of water wells (Canadian example of human deaths) therefore alternatives must be demonstrated not to simply transfer the problem to some other environmental compartment.

Innovation

32. The innovative aspect of this proposal will be in the successful demonstration of the Credit Facility, the strong association with Slovenian institutions and technical organizations, and the ability to demonstrate sustainability.

Summary

33. This proposal is well thought out and well articulated. It addresses very specific GEF priorities and represents the continuum of GEF involvement in the Danube/Black Sea basin to the point of remediation investments using innovative credit facilities. There are a few areas noted above that the proponent should consider, however these are mainly matters of clarify and not substance.

GEF/SLOVENIA

REDUCING WATER POLLUTION IN THE DANUBE BASIN

ANNEX 8

RESPONSE TO THE STAP REVIEW

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A. INTRODUCTION

1. The Demand Study is indeed included as Annex 6 of the package. We will make that clearer in the final documentation submitted to GEF.

2. *Issues 1a. Inclusion of non-point sources of pollution.* So long as there is a defined borrower, with a bankable project, which is eligible under the eligibility criteria, then it can be included in this facility. That could include a pig farm or any other livestock operation.

3. Issue 1b. Annex 5. Determination of Trans-boundary Effects. If we understand the issue correctly, you suggest the need to demonstrate more closely the linkage between GEF-subsidized loans supported under the project and the incremental costs associated with achieving trans-boundary reductions in nutrient loading.

4. It is unreasonable to think that sufficient data will emerge from the project to make a coherent statement about trans-boundary impacts. However, data can be provided about point source emissions which have been effected by the programme and these should be used as an indicator which will hopefully support a downward trend. Companies would be required to submit to the Environmental Expert relevant pre-project documentation quantifying effluent levels (obtained as part of the application process and/or through recent voluntary effluent reporting to the MOEPP). This information, together with the specifications associated with the technical package to be purchase through the loan, would provide the basis to estimate what reductions in nutrient loading could be achieved. Aggregating this data with similar calculations associated with other borrowers participating in the project, would provide an initial basis for estimating total project-related reductions in trans-boundary nutrient loads.

5. Issue 1c. Annex 5. Monitoring of Environmental Impacts. The issue as we understand it puts more emphasis on achieving emissions reductions as opposed to environmental impact. The suggested solution is to require the project proponent to include appropriate aquatic indicators to assess reductions in loading (for nutrients) and ambient water or reduction assessments for toxic effluents.

6. This is an issue that we had grappled with at some length and we did not want to get into a substantial (and costly) ambient water quality monitoring programme. Slovenia and the EU already have effective monitoring programmes in place to assess the quality of waters in the River Danube (see, for example, the European Topic Centre on Water part of the European Environment Agency). Our view is that within the scope of this facility we can realistically only focus on emission reduction monitoring.

7. We have made provision for the Environmental Expert (supported by additional technical expertise, if required – see below) to make two visits per borrower during the course of the loan period. The first would be to ascertain if the loan was used for the intended purpose, if the technical package was installed correctly, and functioning. The second visit would be an unannounced visit made during the course of the life of loan to ensure that the technology continues to function and achieve the stated reductions. Beyond this, what we propose is the

project proponent provide voluntary reports to the Environmental Expert on a regular basis presenting data on reductions of previously-agreed pollutants (these can be the same as those provided the MOEPP if relevant). Cost of laboratory analyses would be included as part of the two monitoring visits made by the Expert. Finally, we would assume that each piece of pollution reduction equipment installed comes with associated effluent reduction specifications which the purchaser could expect to achieve when fully operational. This would provide another input into assessing the reduction in emission associated with the investment and therefore a reduced environmental impact. We would be very happy, at the end of this programme, to provide our aggregated emission reduction data to the Slovenian authorities and other relevant institutions so that they can use this to assess the impact on ambient water quality.

Note: The language of Annex 5, Section 15 (ii) has been amended in line with the comments of the STAP reviewer.

8. Issue 2. Use of Technology. Your comment is that there are no guidelines on how to assess whether or not alternative processing/manufacturing technologies are more cost-effective than simple effluent treatment technologies criteria for judging the effectiveness of technological alternatives.

9. As a starting point it should be noted that the Credit Facility has not been designed with the specific aim of promoting particular technologies. Also, the Bank has no intention of encouraging companies to invest in expensive effluent reduction technology simply because a subsidised grant is available to do so. This why the facility includes two key aspects – first, the involvement of TAM/BAS who will be providing advice and guidance on improving process efficiency (the cleaner production approach), and second a requirement that any proposed investment should be, in the long term, the least-cost option for achieving intended emission reductions or, alternatively, it should generate additional environmental or other benefits, which justify higher costs.

10. To help address your concerns, the Environmental Expert will include within their review of the project an assessment of whether or not the proposed technology is the best and most cost-effective solution to the problem at hand. Such an assessment may require input from other technical experts. Clearly there is a difficulty in EBRD defining criteria for technological alternatives for what could turn out to be a whole range of sectors financed through this facility.

11. Issue 4. Other Questions. – Annex 2

Failure of the Slovak Energy Efficiency Credit Line. You asked what impact the failure of this facility had on the design of the proposed project and asked for more information on the lessons learned.

12. The Slovak Energy efficiency Credit Line was raised by a participant in the Stakeholder Workshop on the held in Ljubljana on 17 June 2002. In actual fact EBRD would not consider this project a failure. A number of energy-efficient loans had been extended and were being repaid as required when a problem arose with the FI administering the credit line. The President of the FI extended a number of sizeable guarantees to Russian banks without authorisation and, following the Russian crisis (August 1998) those guarantees were called. The

FI, basically, went bust. It was taken over by a strategic investor but the EBRD decided to suspend the credit line and any funds owed were repaid. The financing model itself did not have any problems up to that point. The project involved a DM equivalent of ECU 15 million for a general purpose credit facility with up to the equivalent of ECU 7.6 million being available for co-financing energy efficiency investments, with interest-free Phare funds available for ECU 3.8 million. Proceeds of the facility were used to finance: (i) commercial interest rate sub-loans for the general financing needs of its private sector clients; and (ii) below commercial interest rate sub-loans for energy efficiency projects. There were, at the time, some questions raised with regard to effective selection and monitoring of sub-loans from an energy efficiency perspective. This issue has been addressed within our project through the retaining of the independent Environmental Expert to both select and monitor projects.

13. Arrangements with the FIs. You asked what the likelihood of local Fis, accepting the proposed financing model, was.

14. The willingness of FIs to participate in this project is difficult to assess at this stage and will hinge on how attractive the incentives are. As stated in the Annex, the FIs are naturally conservative and will need to understand what the benefits are prior to taking on a new product, marketing this to clients and then taking on the additional burdens of administration, monitoring and reporting. This is one of the key reasons we proposed the incentive structure we did. In October 2001, staff from EBRD undertook a mission to Slovenia and met with two potential participating FIs. In both cases the response was basically yes, sounds like a good idea, but come back to us with a more concrete proposal. It is difficult to come up with more concrete proposals until approval has been given by both the GEF (for the grant portion) and EBRD's Operations Committee (for the bulk of the facility). Within EBRD, the project has passed the first stage, entitled Concept Review, which means EBRD staff can now undertake firmer negotiations with potential participating FIs. Given the benefits for local FIs associated with this project (both financial and reputational) and the potential demand demonstrated in the Demand Study, we think this facility will prove a very tempting business proposition for local banks.

15. The Environmental Expert. You recommend that the Environmental Expert should not be a single person or Company.

16. We must ensure that the Environmental Expert is providing an impartial and consistent review of proposals submitted. For this reason we feel that the Environmental Expert, or at least the administering of the Environmental Expert's role, should be undertaken by one person or company. However, recognising the wide variety of potential projects that may be submitted, the Environmental Expert could tap into a network of other experts to help in reviewing the cost effectiveness, practicality and eligibility of submitted proposals. Budgets will be modified accordingly to cover the potential additional costs associated with such an approach.

17. Issue 4. Other Questions – Annex 3. You asked how we arrived at the US$ 9 million figure for the GEF grant.

18. Sizing such a facility is always difficult simply because of the inherent uncertainties, and therefore risks, associated with launching a new product. In this case there were two key factors – the Demand Study and guidance from GEF. The Demand Study showed a total demand (industry plus municipal) of around US$ 552 million. Taking a very conservative view, we

thought that, in the first instance, maybe 10% of that demand could translate into loans, i.e. around US$ 55 million. Additionally, we received guidance that, for innovative projects such as this, GEF might provide anything up to about US$ 10 million in grant financing. Taking into account that a certain amount of that grant would need to be used for technical assistance activities we worked on the basis of a US$ 9 million grant complemented by US$ 45 million of EBRD funds for a US$ 54 million facility to meet that 10% demand. This represents a leveraging effect of 5 EBRD dollars to every 1 dollar of GEF financing which, we understand, is a ratio that GEF has not normally been able to achieve before.

19. Management of the CF. You asked for more information on how will the CF be managed?

20. Management of credit lines extended under this facility will be by participating FIs. FIs will apply to EBRD for a loan under the facility and, if accepted, the loan will be extended. At this stage, there is no transfer of funds, simply a commitment by the FI to take up to the agreed amount. When the FI has agreed a number of sub-loans with companies, it will then make an application to EBRD to drawdown funds from the amount committed. EBRD transfers to the FI the amount required to finance the sub-loans and the FI then provides that to the companies. The administration of the sub-loans is covered by the FIs in both terms of staffing and associated costs. The administration of the overall credit facility, including disbursement of the GEF grants, will be undertaken by EBRD and the costs associated with that borne by EBRD. Remember, local FIs will receive incentives to participate financed through the grant portion provided by GEF, while EBRD receives a fee from GEF for developing and operating this project.

21. Issue 6. Context of the GEF Goals. The issue is paragraph 13 of the Main Report needs to be strengthened to increase clarity with respect to the linkage of a GEF-supported country-specific investment project to the relevant OP 8 objectives.

22. The following text has been added into Section 13 of the Main Document to address the issue raised by the STAP reviewer.

23. The project addresses the objectives defined under GEF Operational programme (OP) 8 (Water body-based). Specifically, this OP provides for, among other objectives, "… a logical progression of GEF-funded activities – from project development to analyses of transboundary priority environmental concerns to formulation of an international water Strategic Action programme to eventual regional capacity building or ***country-specific*** investment projects." As has been demonstrated above, the proposal has been prepared within the context of the ICPDR, JAP, and the SAP. Moreover, the project will establish a technical and financing modality that addresses key causes of trans-boundary nutrient pollution in the industrial, municipal and agricultural sectors in Slovenia with a view to developing and demonstrating practical and cost-effective solutions for achieving economically sustainable environmental improvements in the industrial and municipal sectors. One of the major outcomes of the project will be replication of this modality to other countries in the DRB.