ANNEXES

ANNEX 1 Incremental Cost Analysis and Matrix – Project Tranche 2

INCREMENTAL COST ANALYSIS

1. BROAD DEVELOPMENT GOAL

The Danube River Basin is an extensive unique ecosystem in which the balance between the non-living and living resources on one hand and human population on the other has been repeatedly disturbed. Due to the numerous environmental disturbances within its own limits, the Danube River has a negative impact on the complex ecosystems of the Black Sea. All Danube countries are urgently seeking to address environmental protection of transboundary waters under the Danube River Protection Convention.

The current economic conditions of the countries in transition do not allow them to fully respond to the needs for environmental protection and implementation of pollution control measures. Therefore, the GEF project will assist the countries in transition to respond to regional and global environmental issues with particular attention to pollution control and nutrient reduction.

The major perceived problems of the Danube River Basin can be summarized as follows:

- Significant degradation of water quality and ecosystems
- Change in hydrological systems
- Increased nutrient loads to the Black Sea
- Reduced quality of life and human health
- Limited capability to create a sustainable mechanism for co-operation that will be embodied in an international legal and policy framework for co-operation in protection and sustainable use of the Danube River.

The long-term development objective of the proposed Regional Project is to contribute to sustainable human development and promotion of economic activities in the DRB through reinforcing the capacities of the participating countries in developing effective mechanisms for regional cooperation and coordination, in order to ensure protection of international waters, sustainable management of natural resources and biodiversity.

2. BASELINE

The need for protection and management of the Danube River Basin environment and its resources has preoccupied the Danube countries for many years. However, while the EU member States, Germany and Austria have already adapted their legal frame according to EU requirements, the Danube countries in transition are still making great efforts to revise and adapt their legislation to EU standards.

Recently, largely as a consequence of the development of previous UNDP/GEF project "Danube Pollution Reduction Program", there has been an increasing awareness that legal measures and projects to reduce emissions from point and non-point sources of pollution are urgently needed, in particular measures that will substantively contribute to reducing the transport of nutrients, in particular nitrates to the Black Sea.

The commitment to cooperate and seek common solutions towards implementing nutrient reduction and pollution control measures has been underlined during the development of the Pollution Reduction Program and the elaboration of the Transboundary Analysis. In addition, the Danube countries have cooperated either in the frame of ICPDR or bilaterally and multilaterally, through conventions and agreements, with a view to jointly formulating and implementing transboundary pollution reduction and environmental protection actions and measures.

However, national mechanisms for pollution control in transition countries are often not fully operational and the inter-ministerial structures for transboundary cooperation in water related environmental issues are weak or missing in most of the transition countries.

All Danube countries, in particular Germany and Austria, have made significant investments in an effort to reduce emissions and improve environmental standards. These ongoing programs form an important part of the project baseline. In addition, there is financial support being provided by international and bilateral organisations. Contributions came from EU PHARE and TACIS, GEF/UNDP, USAID, DEPA, and other multilateral and bilateral donors as well as from international NGOs.

The ICPDR Expert Groups and the Joint Danube-Black Sea Ad-hoc Working Group have already formulated and facilitated the development of common strategies and policies to assure a reduction of nutrient load in the Black Sea. It is a solid baseline for co-operative research and joint implementation of measures for pollution abatement. Moreover, the ICPDR Information System, DANUBIS, has contributed to an efficient exchange of information throughout the Danube Basin countries.

In November 2000 the ICPDR and the countries participating in the implementation of the Danube River Protection Convention (DRPC) have agreed to develop a common approach for implementing the EU Water Framework Directive. This important decision provides the common platform for cooperation in setting up mechanisms and in implementing programs and projects for sustainable water management, protection of ecosystems, pollution control and nutrient reduction also in view to rehabilitate the ecological conditions of the Black Sea.

Considering that the approximation process of the Danube countries will take 7 to 20 years, including the introduction of new environmental standards in line with international and EU directives, the "incremental" support of the Project will enhance the process with particular attention to nutrient reduction and will considerably accelerate the development and implementation of policies, regulations and adequate monitoring and enforcement systems for nutrient emissions and reduction of nutrient loads discharged into the Black Sea.

3. GLOBAL ENVIRONMENTAL OBJECTIVE

The global environmental objective of the proposed project is to ensure a regional approach to (i) the development of national policies and legislation and, (ii) the identification of priority measures and actions for nutrient reduction and pollution control, so as to obtain maximum long-term benefits while protecting human health and ecological integrity and ensuring sustainability.

The potential global and regional benefits are likely to be substantial, including the protection of international waters, sustainable management of natural resources and the maintenance of a diverse aquatic ecosystem. The project will also develop effective mechanisms for regional co-operation and co-ordination geared towards the implementation of pollution control and nutrient reduction measures.

The GEF interventions will be accompanied by the current support through bilateral and multilateral programmes in the basin.

4. GEF PROJECT ACTIVITIES

GEF will provide the catalytic support for incremental costs associated with the development of nutrient reduction policies and the creation of efficient mechanisms for regional co-operation under the Danube River Protection Convention to assure efficient control and monitoring of transboundary benefits of the reduction of nutrients and toxic substances within the Danube River Basin.

The strengthening of transboundary co-operation will contribute to an efficient implementation of the ICPDR Joint Action Program under DRPC with particular benefits gained due to nutrient reduction in the Black Sea and the rehabilitation of its ecosystems.

The approach would be consistent with the guidance for the GEF "Waterbody-based Operational Programme." For this project, the goal is to assist the Danube countries, especially the transition countries, in making changes in the ways that human activities are conducted in different sectors so that the Danube River and its multi-country drainage basin can sustainably support the human activities. Projects in this

Operational Programme focus mainly on seriously threatened water bodies and the most imminent transboundary threats to their ecosystems as described in the Operational Strategy. Consequently, priority is placed on changing sectoral policies and activities responsible for the most serious root causes needed to solve the top priority transboundary environmental concerns which is given for this present project by the pollution and nutrient reduction.

The GEF alternative would support the proposed project in:

- Developing nutrient reduction policies and legal instruments and measures for exacting compliance
- Strengthening institutional mechanism and building capacity for transboundary cooperation in nutrient reduction
- Raising awareness and reinforcing NGO participation in implementing "Small Grants" Projects
- Strengthening the monitoring and information mechanisms on transboundary pollution control and nutrient reduction

This regional project represents a motivating case in which the improvement of transboundary co-operation and co-ordination shall help ICPDR and the countries to reinforce their efforts aimed at an efficient implementation of the DRPC.

In addition, improved transboundary co-operation will provide a better basis for the sustainable use of natural resources and the conservation of biological diversity in the Danube river basin. The cost of doing this is evidently incremental to the national efforts of all thirteen countries, focused on maximising environmental benefits through comprehensive global and domestic environmental management strategies.

In its 1st Phase, the Project will reinforce existing implementation mechanisms, analyse and prepare methodological and practical approaches for various project components and organize workshops to train trainers in technical, legal and economic aspects of water management and pollution reduction. The 2nd Phase of the Project will build up on the results of the 1st Phase and assure full implementation of all project components and efficient achievement of set targets for sustainable management of waters and protection of ecosystems in the Danube River Basin and the Black Sea.

5. SYSTEM BOUNDARY

For the purpose of this project, the area of GEF interventions is defined by the hydrological catchment basin of the Danube river, as regards the international water boundaries, and beyond this, the natural resources of the Danube countries, as regards the natural resources management and biodiversity conservation objectives.

The project will inevitably result in a large number of domestic and regional impacts and benefits and attention has been paid to include these within the system boundary.

The participating countries include Germany, Austria, the Czech Republic, the Slovak Republic, Hungary, Slovenia, Croatia, Bosnia & Herzegovina, Serbia & Montenegro, Bulgaria, Romania, Moldova and Ukraine.

Over the long-term, a variety of domestic benefits would be gained through the implementation of the proposed project. The most valuable domestic benefits to be gained from the project are associated with substantially strengthened institutional and human capacity in pollution control and water quality assessment, increased technical knowledge and public awareness of Danube environmental issues and transboundary co-operation, and improved national capacities in environmental legislation and enforcement as well as in natural resources management.

Bilateral and multilateral programmes focused on domestic improvements in water management and pollution control have been included within the baseline in order to clearly distinguish between actions

most likely to result in domestic benefits (baseline bilateral projects) and those that will mainly result in regional and global ones (the present project).

Summary Incremental Costs during Phase 2 (July 2003 – June 2006):

Baseline	529,631,000 USD
Alternative	554,509,000 USD
Incremental	24,878,00 USD

GEF Financing	Project Tranche 1	**Project Tranche 2**
Project	5,000,000 USD	**12,000,000 USD**
PDF-B	350,000 USD	
Co-Financing (ICPDR and others)	6,600,000 USD	**12,878,000 USD**
Total project Cost	11,950,000 USD	**24,878,000 USD**

Incremental Cost Matrix – Benefits

Component	Benefits	Baseline	Alternative	Incremental
OBJECTIVE 1: Creation of sustainable ecological conditions for land use and water management	**Domestic**	1. EU member states, Germany and Austria, have adapted their legal frame to EU standards and are improving conditions through additional investments to assure compliance; 2. Danube countries in transition are in different stages of adapting their legislation to EU standards; 3. Countries in transition have to revise their water and waste water tariffs to assure amortization of investments and economic operation of treatment plants, considering in particular third stage for nutrient removal; 4. At the national level, most Danube countries in transition have no efficient mechanisms or inter-ministerial structures for cooperation in water related environmental issues (pollution control, nutrient removal, etc.); 5. All Danube countries have developed investment programs to reduce emissions and improve environmental standards; the total investment of committed priority projects for municipal, industrial, agricultural waste water treatment facilities and wetland restoration projects is 4.4 billion €.	1. EU member states Germany and Austria will continue to improve compliance with guidelines for nutrient reduction from non-point sources of pollution through changes in agricultural and land use practices (eco-farming); 2. Countries in transition in the central and lower DRB will increase their efforts to adapt national legislation to EU standards with particular attention to the EU nitrate directives and phosphorus phase-out regulations for detergents; 3. Economic conditions for investments and operation of waste water treatment facilities in the municipal, industrial and agro-industrial sectors, in particular for nutrient reduction, will be improved through adopted regulations and new tariffs for waste water management; 4. Policies and regulations as well as mechanisms for compliance will be developed for nutrient reduction from non-point sources of pollution with particular attention to agricultural practices (organic farming) and land management (green river belts, wetlands restoration; etc);	1. Inventories of "hot spots" with particular attention to agricultural and industrial emissions are constantly updated; policies and regulations are harmonized with those existing in EU member states and improved mechanisms for compliance are introduced to assure efficient reduction of nutrients and toxic substances : • from agricultural non-point sources of pollution by introducing concepts and implementing pilot projects for best agricultural practices (agrochemicals, organic farming) and for land management (green river belts, wetlands restoration; etc); • from agricultural point sources of pollution (animal farms, agro-industries) by implementing concepts and practical pilot projects in adequate waste water treatment and new manure handling practices; • from industrial and mining companies in introducing concepts and practical pilot projects for "clean" (BAT) industrial production and safety regulation in industrial sectors; 2. Agreed specific proposals for revised tariffs, incentives and fines available for implemen-tation in all transition countries to assure amortization of investments and coverage of operational cost for waste water treatment and nutrient reduction; 3. Legislation adapted to EU standards in all transition countries introduced and existence of measures for compliance in relation to the implementation of the Nitrate Directive and regulations for phosphorus phase-out in detergent;

Component	Benefits	Baseline	Alternative	Incremental
OBJECTIVE 1: Creation of sustainable ecological conditions for land use and water management	**Global-Regional**	1. Either in the frame of the ICPDR or bilaterally and multilaterally, the Danube countries formulate common policies and actions for transboundary cooperation in pollution reduction and environmental protection; compliance is often not assured 2. The ICPDR has created an ad-hoc working group to assure efficient implementation of the new EU Water Framework Directive using river basin management as the appropriate approach to assure stakeholder participation and transboundary cooperation; 3. In the Joint Action Program of the ICPDR, transboundary policy measures and projects have been identified to reduce transboundary pollution;	1. The harmonization of national standards and procedures will facilitate regional cooperation under the Danube River Protection Convention as well as control and monitoring of transboundary benefits of pollution and nutrient reduction; 2. The new EU WFD will be implemented in the whole DRB using river basin management as the most efficient approach; this calls for the cooperation of all Danube countries, the civil society and NGOs to develop joint mechanisms and structures at the ICPDR and the sub-regional level; 3. The implementation of the Joint Action Program under the DRPC will be reinforced through transboundary cooperation, defining complementary actions to reach common goals of pollution reduction in Significant Impact Areas (SIA) and rehabilitation of ecosystems; particular benefits will be the reduction of nutrient load in the Black Sea and the rehabilitation of its ecosystems;	1. Improved and harmonized standards and procedures in all participating countries facilitates joint monitoring of transboundary effects and control of pollution and nutrient reduction measures introduced in municipal, industrial and agricultural sectors; 2. Middle and lower Danube states will have established their respective program of cooperation for the implementation of the EU WFD and their participation in the development of River Basin Management Plans; 3. The first and second phase of the EU WFD is being implemented by the majority of the DRB countries and operational mechanisms and structures for the preparation of RBM plans are in place; 4. The implementation of common policies for sustainable use of land and natural resources, nature conservation and wetland restoration, developed in the frame of an Annex to the Convention, will facilitate the development of RPM plans; 5. Capacities for cooperation under the DRPC are improved and established linkages to International Financing Institutions facilitate the implementation projects and measures of the Joint Action Program; consequently, a further reduction of pollution and nutrient loads affecting ecosystems in the DRB and in the Black Sea is achieved.
OBJECTIVE 2: Capacity building and reinforcement of transboundary	**Domestic**	1. National mechanisms for pollution control in transition countries are frequently not fully operational (lack of funds, outdated equipment etc.)	1. National and transboundary mechanisms for pollution control will reach comparable standards in all Danube countries to assure reliable	1. National "Inter-ministerial Committees" will assure implementation of new policies and legislation for nutrient reduction and pollution control.

Component	Benefits	Baseline	Alternative	Incremental
cooperation for the improvement of water quality and environmental standards in the Danube River Basin		2. National allowable emissions and quality standards are not yet fully harmonized with EU standards and control mechanisms (laboratories) are insufficiently equipped; 3. In transition countries, national mechanisms for environmental impact assessment are weak and control mechanisms are often not operational (see recent accidental pollution in theTisza and Siret River Basins);	data and coherence of information; 2. National emission limits and water quality standards will be adapted to EU regulations and control mechanisms will be fully functional in all DRB countries; 3. Environmental impact assessment will be part of national regulations to assure efficient control of industrial, mining and transport activities and to introduce preventive measures;	Improved national mechanisms for environmental impact assessment and harmonized standards for emission control and water quality assessment will facilitate regional cooperation in producing coherent data for monitoring and reporting; 2. Improved accidental emergency system will facilitate efficient monitoring of accidental "hot spots" and prevention of accidental pollution from toxic substances from mining and industrial plants;
	Global-Regional	1. The ICPDR has put in place Expert Groups to develop common strategies and standards for pollution control (emissions), water quality control, accidental emergency wam ing, ecology and river basin manage-ment (implementation of EU WFD); 2. The Joint Danube–Black Sea ad-hoc working group has formulated common strategies to assure a reduction in nutrient load in the Black Sea with the objective to restore the Black Sea ecosystems; 3. The ICPDR has put in place an Information System (DANUBIS) to assure efficient exchange of information within the member states and Expert groups and to provide information to the public	1. To facilitate monitoring and evaluation of joint implementation of pollution reduction measures, the participating countries under the ICPDR will improve mechanisms for monitoring and evaluation and develop indicators to measure process, environmental status and stress reduction; 2. The Danube–Black Sea Joint Working Group will implement the commonly agreed strategies and actions, develop respective impact indicators and report the results regularly to both Commissions; 3. All Danube countries will use the ICPDR Information System (DANUBIS) as an interactive plat-form for the development and exchange of information and provide access to reliable data and information to the public;	1. The existence of commonly agreed indicators to measure process, environmental status and stress reduction will facilitate joint monitoring and evaluation of the implementation of pollution reduction measures; 2. Increased technical and managerial knowledge for transboundary cooperation and development of joint policies and actions through training workshops and regional consultation meetings; 3. The publishing of regular evaluation reports on water quality and nutrient loads/concen-trations in the TNMN Yearbooks and other relevant documents will facilitate coopera-tion and public information; 4. Regular reports on the status of the Black Sea ecosystems will be issued by the Joint Danube-Black Sea Working Group based on observation of commonly agreed indicators; 5. The upgrading of the ICPDR Information System will strengthen interactive internal monitoring and information exchange and provide information to the public;

Component	Benefits	Baseline	Alternative	Incremental
OBJECTIVE 3: Strengthening of public involvement in environmental decision making and reinforcement of community actions for pollution reduction and protection of ecosystems	**Domestic**	1. National NGO have been actively participating in implementing GEF Small Grants projects and in conducting awareness raising campaigns for pollution reduction; 2. In Germany as well as in Austria and also in several Danube transition countries, national NGOs have established good working or influential relationships with governments at national and local level; 3. Government campaigns for awareness raising for pollution control and waste water management are relatively rare in transition countries (scarcity of funding); 4. Reports from mass media on National Planning Workshops, organized in the frame of the UNDP/GEF Pollution Reduction Program in 1998/99, contributed to public awareness raising;	1. Community-based activities for pollution/nutrient reduction measures and wetlands restoration will be supported by the "Small Grants Programme" and implemented through NGO involvement; 2. National NGO's will be strengthened to enable them to participate in national debates and public hearings on environmental issues with particular attention to pollution control, nutrient reduction and EIA; 3. National NGOs will organize and implement, in relation to "Small Grants Programmes" particular awareness raising campaigns for pollution control and nutrient reduction;	1. Community based actions and programs for nutrient reduction and awareness raising are efficiently implemented by national NGOs with the financial support of the "Small Grants Program"; 2. Efficient participation of NGOs in national debates and public hearings related to environmental protection and RBM is strengthened through their involvement in the Small Grants Program and in the organization of awareness raising campaigns; 3. Improved public awareness and response to nutrient reduction and pollution control is strengthened through public campaigns and the implementation of actions and projects in the frame of the Small Grants Program ("applied" awareness raising);
	Global-Regional	1. At the regional level, national NGOs are organized in the Danube Environmental Forum (DEF); DEF representatives participate in ICPDR meetings, in the RMB and in the ad-hoc ECO Expert Groups; an internal information exchange by e-mail is functioning; 2. International NGOs, and WWF in particular, play an important role in wetland restoration and environmental awareness raising and participate in all emergency situations (Balkan Task Force, Baia Mare Task Force, etc.); 3. Under the Danube River Basin Environ-mental Program, the	1. The Danube Environmental Forum will be fully operational at the national and regional levels; the DEF will participate with qualified expertise in all ICPDR Expert Groups to assure the implementation of NGO strategies and actions in support of the DRPC; 2. The DEF has developed mechanisms to assure sustainable financial resources for its operation and activities; 3. Under the ICPDR, basin-wide awareness raising campaigns will be organized to enhance public participation in the implementation of the water framework and nitrate	1. Operational mechanisms and structures for basin-wide cooperation and development of common NGO actions under the DEF are in place to respond to environmental issues at the national and regional level; 2. Improved and efficient cooperation with the ICPDR is assured through continued NGO participation in ICPDR bodies and decision making process (observers); 3. Financial sustainability of the DEF is assured through development of funding schemes and resource mobilization; 4. Increased awareness of the public and the decision makers of nutrient reduction and pollution control is achieved through public awareness raising campaigns

Component	Benefits	Baseline	Alternative	Incremental
		periodical "Danube Watch" was published quarterly from 1994 to 2000 as a channel to inform the govern-ment and private readers about water pollution and related problems in the DRB and the progress made in implementing the programme in support of the DRPC;	directives with particular attention to nutrient reduction measures and phosphorus phase- out programs; 4. The Danube Watch will be used as a periodical information journal of the ICPDR;	organized in cooperation with the DEF and national NGOs and through special publications of the ICPDR;
OBJECTIVE 4: Reinforcement of monitoring, evaluation and information systems to control transboundary pollution, and to reduce nutrients and harmful substances	**Domestic**	1. In transition countries, the analysis of sediments and monitoring of bio-indicators is only done occasionally; funding of institutions and laboratories is insufficient to conduct regular programs; 2. Monitoring of nutrient-removal capacities of wetlands is only done in the frame of specific projects outside the DRB; no regular observation program exists in the Danube countries;	1. Specialized institutions at the national level will be identified to participate in the sampling and analysis of bio-indicators and sediments to control toxic substances, heavy metals and other pollutants in national waters; 2. In the frame of the implementation of wetland rehabilitation projects, monitoring programs will be set up to analyze the effects of nutrient reduction and to determine the most cost-effective solutions for wetland restoration in the DRB;	1. Improved performance of national institutions to execute sampling and analysis of environmental status indicators (with particular attention to bio-indicators) and sediments to control toxic substances, heavy metals and other pollutants in national waters; 2. Improved knowledge on toxic substances accumulated in sediments in the Danube River and its tributaries and on possible effects on the Black Sea; 3. Improved knowledge and experience on the most cost-effective way of wetland restoration and nutrient removal in the DRB;
	Global-Regional	1. Upstream Danube countries, in particular Germany and Austria, are introducing ecological agricultural systems and further adapting national legislation to EU directives (e.g. Nitrate Directive) whereas downstream countries have a good potential (but no funds!) to introduce cost-efficient nutrient reduction measures 2. Transboundary effects of pollutants in sediments (toxic substances and heavy metals) are not investigated; transport mechanisms of sediments and effects on the Black Sea ecosystems are presently not known;	1. EU countries, Germany and Austria are increasing their efforts to comply with EU Nitrate Directive in regard to diffuses sources of pollution, (in particular agricultural activities); in this context, economic measures will be examined to speed up nutrient reduction measures in the frame of joint actions under the ICPDR; 2. The ICPDR will set up a regular programme for the sampling and analysis of bio indicators and sediments to control transboundary flow of toxic substances, heavy metals and other pollutants as well as their effects on ecosystems in the DRB and the Black Sea;	1. Economic instruments are defined and discussion with the EU is ongoing to identify new or alternative ways for the implemen-tation of nutrient reduction measures, including incentives and voluntary measures of basin wide cooperation; 2. Regular monitoring programs exist to analyze the effects of nutrient reduction and to evaluate their effect on ecosystems in the DRB and the Black Sea;

Component	Benefits	Baseline	Alternative	Incremental
INVESTMENTS: Five Year Nutrient Reduction Plan / ICPDR Joint Action Programme	**Domestic**	Investments: 4.4 billion € (4.0 billion USD) for five years out of which 39% of funding is assured through national funding, 26 % through international loans and 15% through international grants; 20% of the proposed investment remains to be raised. Through the implementation of projects for waste water treatment in the municipal, industrial and agro-industrial sectors (ICPDR Joint Action Programme), domestic benefits in pollution reduction (COD, BOD, N + P) are achieved;	In the frame of the existing funding schemes, additional funds (850 million €) will be mobilized through: • World Bank Investment Fund for Nutrient Reduction : 210 million $ in loans and 70 million $ in GEF grants • ISPA funds : 3.5 billion € • SAPARD funds : 1.7 billion € • Other EU funds : 8.3 billion € • EBRD funds : to be determined • Bilateral funds : to be determined Considering that the economic situation of all transition countries will be improved over time, the 5-year investment program can be amended and additional investments can be foreseen to further facilitate the implementation of pollution reduction measures. Particular attention will also be paid to nutrient reduction from non-point sources of pollution through the development and implementation of respective policies and legislation.	Through the implementation of the above-mentioned measures of the GEF Regional Project in terms of the development of policies and regulations for nutrient reduction in line with EU Directives (Urban Waste Water Directive, Nitrate Directive, WFD, etc.), additional benefits will be achieved in reducing emissions from point and non-point sources, in particular from agricultural activities. The 2nd Phase of the GEF project from 2003 to 2006 will reinforce the results of the investment program and will increase the effectiveness of investments for pollution control and nutrient reduction.
	Global-Regional	The implementation of the above measures will also yield transboundary and therefore regional benefits; concerning the reduction of nutrient transport to the Black Sea, global benefits will also be achieved.	All the projects described above and the measures implemented at the national level will have transboundary consequences in the improvement of health and ecological conditions in the Danube River Basin (Significant Impact Areas) and, through reduction of nutrient load, in the recovery of the Black Sea ecosystems.	The implementation of the above measures at the national level will also yield transboundary and therefore regional benefits in improving the ecological conditions in Significant Impact Areas of the DRB; concerning the reduction of nutrients from point and non-point sources, substantive global benefits will also be achieved for the Black Sea and the restoration of its ecosystems.

Danube Regional Project – Tranche 2 / Incremental Costs Matrix – Costs

Objective	Outputs	Baseline Costs (USD)						Alternative Costs (USD)	Incremental Costs (USD)		
		Governments	UNDP	Bilat. Donors	EU	NGOs	Total Baseline		ICPDR	GEF	Total Incremental
Objective 1: Creation of sustainable ecological conditions for land use and water management	General costs related to Objective 1			600,000			600,000	1,300,000		700,000	700,000
	1.1 Development and implementation of policy guidelines for river basin and water resources management	33,480,000	150,000				33,630,000	35,893,920	1,802,920	461,000	2,263,920
	1.2 Reduction of nutrients and other harmful substances from agricultural non-point sources through agric. policy changes	25,110,000					25,110,000	25,407,250		297,250	297,250
	1.3 Development of pilot projects on reduction of nutrients and other harmful substances from agricultural point-sources	25,110,000	70,000				25,180,000	25,936,000		756,000	756,000
	1.4 Policy development for wetlands rehabilitation and appropriate land use	13,950,000	80,000			120,000	14,150,000	14,340,800		190,800	190,800
	1.5 Industrial reform and development of policies and legislation for application of BAT towards reduction of nutrient (N and P) and dangerous substances	20,925,000	265,000	3,000,000			24,190,000	24,519,700		329,700	329,700
	1.6 Policy reform and legislation measures for development of cost-covering concepts for water and waste water tariffs, focusing on nutrient reduction and control of dangerous substances	8,370,000	200,000	3,000,000			11,570,000	11,741,700		171,700	171,700
	1.7 Implementation of effective systems of water pollution charges, fines and incentives, focusing on nutrients and dangerous substances	6,975,000	50,000				7,025,000	7,229,700		204,700	204,700
	1.8 Recommendations for the reduction of phosphorus in detergents	5,580,000	60,000				5,640,000	5,713,600		73,600	73,600
	Subtotal	139,500,000	875,000	6,600,000		120,000	147,095,000	152,082,670	1,802,920	3,184,750	4,987,670
Objective 2: Capacity building and reinforcement of transboundary cooperation for the improvement of water quality and environmental standards in the Danube River Basin	General costs related to Objective 2			3,600,000			3,600,000	3,945,000		345,000	345,000
	2.1 Setting up of "Inter-ministerial Committees" for development, implementation and follow-up of national policies legislation and projects for nutrient reduction and pollution control										
	2.2 Development of operational tools for monitoring, laboratory and information management and for emission analysis from point and non-point sources of pollution	33,480,000					33,480,000	35,420,858	1,622,628	318,230	1,940,858
	2.3 Improvement of procedures and tools for accidental emergency response with particular attention to transboundary emergency situations	23,436,000					23,436,000	24,829,520	1,135,840	257,680	1,393,520
	2.4 Support for reinforcement of ICPDR Information and Monitoring System	36,828,000					36,828,000	38,990,791	1,784,891	377,900	2,162,791
	2.5 Implementation of the MoU between the ICPDR and the ICPBS relating to discharges of nutrients and hazardous substances to the Black Sea	6,696,000					6,696,000	7,153,646	324,526	133,120	457,646
	2.6 Training and consultation workshops for resource mamangement and pollution control with particular attention to nutrient reduction and transboundary issues	0			206,700,000		217,860,000	218,783,076	540,876	382,200	923,076
	Subtotal	111,600,000		3,600,000	206,700,000		321,900,000	329,122,890	5,408,760	1,814,130	7,222,890

Objective	Outputs	Baseline Costs (USD)						Alternative Costs (USD)	Incremental Costs (USD)		
		Governments	UNDP	Bilat. Donors	EU	NGOs	Total Baseline		ICPDR	GEF	Total Incremental
Objective 3:Strengthening of public involvement in environmental decision making and reinforcement of community actions for pollution reduction and protection of ecosystems	General costs related to Objective 3			6,000,000		9,150,000	15,150,000	15,402,192		252,192	252,192
	3.1 Support for institutional development of NGOs and community involvement		70,000			3,750,000	3,820,000	4,420,350	216,350	384,000	600,350
	3.2 Applied awareness raising through community based "Small Grants Program"		30,000	9,000,000		4,500,000	13,530,000	15,749,962	86,962	2,133,000	2,219,962
	3.3 Organization of public awareness raising campaigns on nutrient reduction and control of toxic substances		94,000			22,200	116,200	1,345,526	324,526	904,800	1,229,326
	3.4 Public participation and access to information						0	4,694,840	2,978,000	1,716,840	4,694,840
	Subtotal		194,000	15,000,000		17,422,200	32,616,200	41,612,872	3,605,840	5,390,832	8,996,670
Objective 4: Reinforcement of monitoring, evaluation and information systems to control transboundary pollution, and to reduce nutrients and harmful substances	General costs related to objective 4							242,250		242,250	242,250
	4.1 Development of indicators for project monitoring and impact evaluation	11,160,000					2,790,000	3,104,198	206,048	108,150	314,198
	4.2 Analysis of sediments in the Iron Gate reservoir and impact assessment of heavy metals and other dangerous substances on the Danube and the Black Sea ecosystems	8,370,000					7,533,000	8,247,330	556,330	158,000	714,330
	4.3 Monitoring and assessment of nutrient removal capacities of riverine wetlands	11,160,000				120,000	10,164,000	11,118,773	741,773	213,000	954,773
	4.4 Danube Basin study on pollution trading and corresponding economic instruments for nutrient reduction	8,370,000					7,533,000	8,089,330	556,330	0	556,330
	Subtotal	27,900,000	0			120,000	28,020,000	30,801,880	2,060,480	721,400	2,781,880
Total Capacity Building		279,000,000	1,069,000	25,200,000	206,700,000	17,662,200	529,631,200	553,620,312	12,878,000	11,111,112	23,989,110
PDF-B											0
Support Costs										888,888	888,888
Total		279,000,000	1,069,000	25,200,000	206,700,000	17,662,200	529,631,200	554,509,200	12,878,000	12,000,000	24,878,000

ANNEX 2 Logical Frame Matrix – Tranche 2 (Objectives, Outputs, Activities)

Revision 2004

Logical Frame Matrix - Phase 2 (Objectives, Outputs, Activities)

Objectives/Purpose	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
1. Long-term development Objective: The long-term development objective of the proposed Regional Project is to contribute to sustainable human development in the DRB through reinforcing the capacities of the participating countries in developing effective mechanisms for regional cooperation and coordination in order to ensure protection of international waters, sustainable management of natural resources and biodiversity. **2. Overall Objective:** The overall objective of the Danube Regional Project with its Phase 1 and Phase 2 is to complement the activities of the ICPDR required to provide a regional approach and global significance to the development of national policies and legislation and the definition of priority actions for nutrient reduction and pollution control with particular attention to achieving sustainable transboundary ecological effects within the DRB and the Black Sea area. **The specific objective of Phase 2 of the Project** is to set up institutional and legal instruments to assure nutrient reduction and sustainable management of water bodies and ecological resources. To do this, the project has to build up on the results of Phase 1.	**Overall Project Objective:** At the end of Phase 2 of the Project, nutrient loads to the Black Sea are considerably reduced by 21.1 % for nitrogen and 32.0 % for phosphorus,	• Reports of Joint Danube/ Black Sea Working Group, in 2005; • TNMN Annual Reports.	• The Danube/Black Sea Joint Working Group is operational.
	Objective 1 : At the end of the Project Phase 2, all Danube River Basin countries have developed and ratified policies and legal instruments for sustainable water management and nutrient reduction and have put in place mechanisms for exacting compliance.	• EU Water Framework Directive applied in the frame of RBM Plans; • National policies and legislation in line with EU Directives; • Institutional and legal mechanisms for exacting compliance	• All countries participate in the development of new legal and institutional instruments
	Objective 2: Institutional and organizational mechanisms for transboundary cooperation and improved water quality monitoring, emission control emergency warning, accidental prevention and information management are fully operational at the regional and national level to assess improvement of water quality and nutrient reduction to the Black Sea.	• Working reports of Inter-ministerial Committees for nutrient reduction and pollution control; • Regular publication of TNMN annual reports; • Up-dated emission inventories and list of priority pollutants; • Operational accidental warning system and prevention (accidental risk inventory) • Progress reports from the Danube-Black Sea Joint Working Group.	• National Governments continue providing sufficient funding for monitoring and evaluation operation of national Information Systems.

Objectives/Purpose	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
3. Purpose of the Project: Further, the Danube Regional Project (Phase 1 and Phase 2) shall facilitate project implementation in providing a framework for coordination, dissemination and replication of successful demonstration that will be developed through the implementation of investment p rojects.	**Objective 3:** The civil society and in particular national NGOs in all Danube countries are at the end of the Project proactively implicated in national nutrient reduction programmes, have organized workshops and produced in national language information material for awareness raising campaigns and have successfully implemented community based nutrient reduction projects financed under the GEF Small Grants Programme.	• Fully operational and self-sustained DEF Secretariat; • List of NGOs in all Danube countries and their activity reports and results of nutrient reduction • Fully implemented GEF Small Grants Programme with 80 % of all projects showing sustainable results	• The DEF has the personnel and has mobilized financial support to play its role efficiently in the DRB
	Objective 4: Knowledge on sedimentation, transport and removal of nutrients and toxic substances is considerably increased and economic instruments to encourage investments for nutrient reduction are accepted and implemented at the national and regional level.	• Projects/measures to reduce toxic substances in the Iron Gate reservoirs; • Reports on quantified nutrient retention capacities of DRB wetland; • Endorsed wetlands management programmes; • Economic instruments to facilitate investments in nutrient reduction projects.	• Cooperation of all countries and organizations, in particular the EU, in defining economic instruments

Objective 1: Creation of sustainable ecological conditions for land use and water management			
Objective / Output / Activity / Outcome	**Objectively Verifiable Indicators**	**Sources of Verification**	**Assumptions and Risks**
Output 1.1: Development and implementation of policy guidelines for river basin and water resources management	1. National reports on environmental characteristics and economic analysis in line with EU WFD existing; 2. River basin management practices and gaps in relation of WFD requirements identified 3. GIS and related data base for RBM Planning 4. Pilot River Basin Plans in line with EU WFD 5. Appropriate structures for transboundary cooperation such as river basin committees are created and operational	1. National reports and analytical summary reports 2. GIS system and maps showing typology of surface waters and groundwater bodies 3. RBM Plans for pilot river basins 4. Guidelines for compliance with EU directives	1. Differing concepts on the sub-river basins delimitation might appear 2. Limited capacities for participation in workshops and for implementation of WFD in downstream countries
1.1.1 Identify the River Basin District (RBD), with particular attention to coastal waters, and develop respective maps for RBD and sub-units *(accomplished in the Phase 1)* 1.1.2 Adapt and Implement the common approaches and methodologies for pressure and impact analysis with particular attention to hydromorphological conditions (at the national level); 1.1.3 Apply the EU Guidelines for economic analysis and arrive at the overall economic analysis for the Danube River Basin; 1.1.4 Assisting ICPDR in further development of the Danube River Basin Management Plan in line with the requirements of the EU WFD 1.1.5 Developing RBM tools (mapping, GIS, remote sensing, etc.) and related data management 1.1.6 Develop the typology of surface waters and define the relevant reference conditions; 1.1.7 Implement ecological status assessment in line with requirements of EU WFD using specific bio-indicators 1.1.8 Characterization and analysis of groundwater bodies *(accomplished in the Phase 1)* 1.1.9 Develop RBM Plan in pilot project (Sava River Basin) and apply common approaches, methodologies, standards and guidelines (taking into account relevant activities within the EU WFD implementation strategy); 1.1.10 Assist Danube River Basin countries in developing strategies to come in compliance with the EU WFD, and in particular the EU Nitrate Directive, in preparing the programme of measures; 1.1.11 Organize workshops and training courses in order to produce the River Basin Management Plan and to strengthen basin-wide cooperation.			
Outcomes: 1. Ability of 13 countries to commonly manage the Danube River Basin, in a consistent approach, coordinated by the ICPDR, enhanced leading to the development of the first *Danube River Basin Management Plan*, according to the EU Water Framework Directive, using the policy guidelines (Economic analysis etc.), methodologies, and tools (DRB GIS etc.) developed; 2. The ICPDR capacity to coordinate the DRB management planning process strengthened through tools and mechanisms developed. 3. Enhanced capacities of the 4 DRB countries (Bosnia i. Hercegovina, Moldova, Serbia and Montenegro and Ukraine) that are either not in the EU already nor an EU candidate country, to understand and then implement the river basin management planning approaches prescribed by the EU Water Framework Directive needed to assure that all 13 DRB countries are involved at the same level to manage the DRB sustainably. 4. Sub-basin management planning approach developed through 1 pilot project (Sava Basin) in 4 countries.			

Objective 1: Creation of sustainable ecological conditions for land use and water management			
Objective / Output / Activity / Outcome	**Objectively Verifiable Indicators**	**Sources of Verification**	**Assumptions and Risks**
Output 1.2: Reduction of nutrients and other harmful substances from agricultural point and non-point sources through agricultural policy changes	1. Concepts for best agricultural practices in line with EU requirements for central and downstream Danube countries are elaborated and discussed in workshops 2. National experts are trained to introduce best agricultural practices in their countries 3. Internet information on the introduction of best agricultural practices in each DRB country	1. Recommendations for application of best agricultural practices for each DRB country 2. Workshop Report 3. Internet address	1. Information need to be available 2. Policy makers discourage the adoption of best agricultural practices 3. Limited internet access in some DRB countries

1.2.1 Update the basin-wide inventory on agricultural point and non-point sources of pollution in line with EMIS emission inventory and EMIS project (MONERIS) *(accomplished in the Phase 1)*

1.2.2 Review relevant legislation, existing policy programmes and actual state of enforcement in the DRB with respect to promotion and application of best agricultural practices;

1.2.3 Review inventory on important agrochemicals (nutrients etc.) in terms of quantities of utilization, their misuse in application, their environmental impacts and potential for reduction;

1.2.4 Identify main institutional, administrative and funding deficiencies (including complementary measures) to reduce pollutants *(accomplished in the Phase 1)*

1.2.5 Introduce or, where existing, further develop concepts for the application of best agricultural practices in all DRB countries, by taking into account country-specific traditional, social and economic issues, and the ECE recommendations;

1.2.6 Discuss the new concepts with governments, farming communities and NGOs in the basin and disseminate results among them.

Outcomes:

1. The integration of water quality objectives related to agriculture nutrient pollution into agriculture policies increased in 11 Danube countries.
2. New agricultural policies for controlling non-point sources of pollution from agriculture accepted by policy makers based on broadly disseminated nation-specific BAP concepts.
3. BAP accepted by farmers in the field in DRB countries.

Objective 1: Creation of sustainable ecological conditions for land use and water management			
Objective / Output / Activity / Outcome	**Objectively Verifiable Indicators**	**Sources of Verification**	**Assumptions and Risks**
Output 1.3: Development of pilot projects on reduction of nutrients and other harmful substances from agricultural point and non-point sources	1. Pilot projects (related to identified priority "hot spots") on practical farm training and institutional support to expand best agricultural practices are carried out. 2. New institutions (networks) on eco-farming are initiated resp. strengthened 3. Pilot project monitoring and progress evaluation regarding financial implications is performed 4. Demonstration workshops assessing practical experiences in pilot projects conducted	1. Pilot project reports for six DRB countries 2. New farming network addresses 3. Better agricultural practices and manure handling (less input of agro-chemicals, less nutrient emissions) 4. Number of pilot projects, trained farmers and farming experts	1. Technical feasibility at pilot sites 2. Conflict with existing farm networks 3. Knowledge needed to inform farm managers and policy makers on the trade-off between on-farm practices and off-farm consequences 4. Controversy on the economic and financial viability of selected pilot farms may occur
1.3.1 Analyze existing programs and pilot projects promoting best agricultural practice (especially regarding animal farming and manure handling, as well as organic farming) in DRB countries, and assess nutrient reduction capacities *(accomplished in the Phase 1)* 1.3.2 Develop practical concepts for the introduction respectively promotion of appropriate agricultural practices and manure handling in the central and downstream RB countries by taking into account national demand and international markets and relevant EC legislation *(accomplished in the Phase 1)* 1.3.3 Prepare and implement for the central and lower DRB countries typical pilot projects (especially in UA, MD, RO, BG, SM and B-H) to train and support farmers in the application of best agricultural practice; 1.3.4 Organize a series of demonstration workshops to disseminate the results of the pilot projects.			
Outcomes: 1. Point and non-point source agricultural nutrient emissions reduced in 5 pilot sites. 2. 100 farmers in lower DRB aware of and applying best agricultural practices. 3. 1000 farmers made aware of best agricultural practices for reducing agricultural nutrient emissions.			

Objective 1: Creation of sustainable ecological conditions for land use and water management			
Objective / Output / Activity / Outcome	**Objectively Verifiable Indicators**	**Sources of Verification**	**Assumptions and Risks**
Output 1.4: Policy development for wetlands rehabilitation under the aspect of appropriate land use	1. Three concepts for land use reforms of selected wetland are discussed with stakeholders (proposal: Morava, Drava, Tisza) 2. New concepts for wetland areas are endorsed by governments (legal and institute. reform for integration of environmental and economic issues is prepared) 3. DRB workshop on project results and conclusions	1. Three new land-use concepts for wetland areas 2. Policy and legal commitment for land use reform around wetlands 3. New wetland projects in preparation or under implementation	1. Need for interdisciplinary problem solving research system 2. Disinterest of authorities for commitment; lack of financial resources
1.4.1 Define methodology for integrated land use assessment and establish inventory of protected areas *(accomplished in the Phase 1)* 1.4.2 Carry out case studies for selected wetland areas and assess inappropriate land use (e.g. forestry, settlements and development zones, agriculture and hydraulic structures) *(accomplished in the Phase 1)* 1.4.3 Develop alternative concepts and strategies for achieving integrated land use and management in chosen wetland areas, including required actions and measures (regulatory and legal issues, economic fines and incentives, compensation payments, etc); 1.4.4 Secure governmental commitments to implement the newly proposed integrated land use for selected wetland areas; 1.4.5 Disseminate project results in the Danube river basin.			
Outcomes: 1. Appropriate Land-Use Concepts accepted by local stakeholders and being implemented in 3 pilot sites in 3 respective countries leading to wetland/floodplain protection and rehabilitation of approximately 7,000 hectars 2. Capacities of key stakeholders (i.e. government, NGOs, private sector etc.) built in 11 DRB countries for implementing appropriate land-use policies to reduce pressures on wetland and floodplain areas in the DRB			

Objective 1: Creation of sustainable ecological conditions for land use and water management			
Objective / Output / Activity / Outcome	**Objectively Verifiable Indicators**	**Sources of Verification**	**Assumptions and Risks**
Output 1.5: Industrial reform and development of policies and legislation for application of BAT (best available techniques including cleaner technologies) towards reduction of nutrients (N and P) and dangerous substances	1. Annually updated assessment of the progress in existing legislative and enforcement status is elaborated 2. DRB countries have adapted national legislation in line with the EU 3. Measures for nutrient reduction in relation to SIA and industrial "hot spots" are implemented 4. Case studies on environmentally friendly production technologies in industries in particular countries are performed 5. Knowledge and understanding on the benefits and costs of various alternative concepts are improved	1. Annual reports on existing legal status 2. Statistics of compliance schedule and enforcement actions taken by industries 3. Guides to pollution reduction for different industries 4. Case studies on application of alternative concepts 5. Number of trained industry experts	1. Accessibility to the most updated databases 3. Industrial managers, researchers and policy makers will perceive the benefits of the EU policies 5. The industries are reluctant to the changes

1.5.1 Up-date the basin-wide inventory on industrial and mining "hot spots" (EMIS inventory) taking into account emissions of nutrients and toxic substances *(accomplished in the Phase 1)*

1.5.2 Identify industrial hot spots having a significant impact on water resources (abstraction, thermal pollution) and water quality; define SIA of industrial pollution (analyze cause-effect relationship))

1.5.3 Review data and information on the actual status of industrial production techniques involving nutrients (N and P) and dangerous substances in the DRB countries (accomplished in the phase 1)

1.5.4 Review policies and relevant existing and future legislation for industrial pollution control and identification enforcement mechanisms on a country level;

1.5.5 Compare and identify gaps between relevant EU and national legislation;

1.5.6 Develop necessary complementing policy and legal measures for the introduction of BAT (taking into account regulatory and legal issues, awareness raising, financial fines and incentives, etc);

1.5.7 Develop appropriate implementation concepts for a step-by-step introduction of BAT in industrial sectors;

1.5.8 Organize workshops with participants from relevant ministries, industrial managers, banking institutions, introducing information on BAT, financial support, etc.

Outcomes:

1. The integration of water quality objectives related to industrial pollution into industrial policy and regulatory framework according to EU Directive on Integrated Pollution and Prevention Control enhanced in 11 Danube countries.
2. Priorities for pollution reduction revised, based on improved methodology for emissions inventories (reflecting the EU directives requirements on reporting) and on better understanding of cause and effect relationships.

Objective 1: Creation of sustainable ecological conditions for land use and water management			
Objective / Output / Activity / Outcome	**Objectively Verifiable Indicators**	**Sources of Verification**	**Assumptions and Risks**
Output 1.6: Policy reform and legislation measures for the development of cost-covering concepts for water and waste water tariffs, focusing on nutrient reduction and control of dangerous substances	1. Economic and financial viability of the tariffs reform for the water companies in specific countries are ensured 2. Improved knowledge on the best tariff alternatives is ensured for all stakeholders	1. Financial accounts of the water companies 2. Economically and socially accepted tariff scheme rules	1. Information accessibility; 2. Political and administrative constraints 3. Keeping the water companies cooperative and competitive 4. Absence of governmental income support programme
1.6.1 Analyze present status and significant deficiencies regarding water supply and wastewater relevant legislation, structure of tariff system, level of tariffs, status of metering, level of illegal and unaccounted for consumptions, collection rates, etc. *(accomplished in the Phase 1)* 1.6.2 Develop country specific concepts for tariff reforms aimed at cost covering models in line with the EU WFD, taking into account Implementation Strategies in EU candidate countries *(accomplished in the Phase 1)* 1.6.3 Develop proposals for policy reforms and legislative measures required for the establishment of cost – covering tariff models in line with the WFD and propose recommendations for phased implementation of tariff reforms; 1.6.4 Organize national workshops with participants from relevant ministries, municipalities, the private sector and relevant NGOs on the introduction of economically and socially acceptable water and wastewater tariffs.			
Outcomes: 1. Awareness of policy options for improved collection of water and wastewater service tariffs and fees in all 11 Danube countries and in most municipalities enhanced. 2. Policy reforms aimed at improved collection of water and wastewater service tariffs and fees considered at the municipal level in 40 municipalities and adopted at the municipal level in 20 municipalities. 3. 60 municipal water systems actively consider tariff reforms aimed at improving sustainable financing; 20 municipalities adopt such reforms. 4. 100 municipalities water and wastewater utilities understand the way in which computerized financial models can be used to assess the financial and service consequences of policy reforms, budget allocations, tariff changes, and development plans,40 municipalities actively use such a model to assess and support new tariff proposals, budget requests, or investment or grant applications.			

Objective 1: Creation of sustainable ecological conditions for land use and water management			
Objective / Output / Activity / Outcome	**Objectively Verifiable Indicators**	**Sources of Verification**	**Assumptions and Risks**
Output 1.7: Implementation of effective systems of water pollution charges, fines and incentives, focusing on nutrients and dangerous substances	1. Recommended water pollution fines, incentives and tariffs are harmonized and implemented 2. Information on the cost-benefits of incentives based on instruments is discussed and disseminated	1. Country-specific recommendations for rules on water pollution fines, incentives and tariffs 2. Workshop reports , number of trained participants	1. Low government willingness to introduce economic incentives 2. Lack of commitment of economic authorities to introduce incentives 3. Limited knowledge on costs and benefits of incentives schemes
1.7.1 Analyze the present legal and regulatory systems of water pollution charges, fines and incentives in the DRB countries and identify significant deficiencies and interferences (basis and types of charges, fines and incentives, effectiveness, collection procedures, exemptions, etc) *(accomplished in the Phase 1)* 1.7.2 Identify and recommend essential and effective water pollution charges, fines and incentives, assess the main obstacles/barriers to their introduction and capabilities of the particular DRB countries for a reform of water pollution charges, fines and incentives *(accomplished in the Phase 1)* 1.7.3 Develop appropriate concepts for the introduction of balanced and effective systems of water pollution charges, fines and incentives in the particular DRB countries 1.7.4 Organize workshops on the application of appropriate water pollution charges, fines and incentives, with participants from relevant ministries, municipalities and private sector			
Outcomes: 1. Ministries and affected agencies of 11 DRB countries are aware of the effects of the current effluent charges designs on revenues, water and wastewater tariffs, and pollution abatement investments. 2. Ministries or affected agencies of 3 DRB countries and 6 selected demonstration municipalities have used financial modeling to test the consequences of possible reforms in the design of their effluent charges. 3. Ministries or affected agencies of 3 DRB countries are actively considering changing their emission charges to encourage reduction in nutrients and toxics.			

Objective 1: Creation of sustainable ecological conditions for land use and water management			
Objective / Output / Activity / Outcome	**Objectively Verifiable Indicators**	**Sources of Verification**	**Assumptions and Risks**
Output 1.8: Recommendations for the reduction of phosphorus in detergents	1. Lessons on phosphorus reduction are learned during implementation of new phasing-out programme for P-detergents	1. Monitoring and evaluation reports on P reduction 2. Recommendations on future actions on P reduction	1. Low priority concern for introducing detergents standard at governmental level 2. Availability of data from some countries
1.8.1 Review the existing legislation, policies and voluntary commitments *(accomplished in the Phase 1)* 1.8.2 Compile and evaluate the data on phosphorus containing detergents delivered by Detergent Industry *(accomplished in the Phase 1)* 1.8.3 Develop proposals for accomplishing a voluntary agreement between ICPDR and the Detergent Industry *(accomplished in the Phase 1)* 1.8.4 Organize a basin-wide workshop on introduction of phosphate-free detergents 1.8.5 Monitor and evaluate results at the national level.			
Outcomes: Voluntary Agreement on the Phase-out of Phosphates in detergent developed in cooperation with stakeholders that leads to implementation resulting in a projected 24% reduction of P from point sources of pollution and 12% reduction in Total P Loads from the DRB to the Black Sea			

Objective 2: Capacity building and reinforcement of transboundary cooperation for the improvement of water quality and environmental standards in the Danube River Basin

Objective / Output / Activity / Outcome	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
Output 2.1: Setting up of "Inter-ministerial Committees" for development, implementation and follow-up of national policies legislation and projects for nutrient reduction and pollution control	1. Existing structures and mechanisms for implementation of environmental policies and legislation analyzed 2. Adequate structures proposed in cooperation with relevant ministerial departments 3. Inter-ministerial Committees established	1. Analysis report 2. Proposal of structural chart and description of mandate 3. Reports from meetings of the committees	5. Reluctance from certain Governments to create the Inter-ministerial Committees 6. Missing cooperation among ministries concerned
2.1.1 Evaluate existing national structures for coordin ation of water management and water pollution control (follow-up action on the report on "Existing and Planned Inter-ministerial Coordination Mechanisms Relating to Pollution Control and Nutrient Reduction") *(accomplished in Phase 1)* 2.1.2 In cooperation with national governments, propose adequate structures, including technical, administrative and financial departments to coordinate the review and implementation of policies, legislation and projects for nutrient reduction and pollution control *(accomplished in Phase 1)* 2.1.3 Assist governments in improving national coordinating mechanisms, provide initial guidance for the implementation of GEF Project Components and assure effective coordination with activities related to WFD and to project development in the frame of the DABLAS Task Force			
Outcomes: Inter-Ministerial Coordinating Mechanisms functioning in 11 Danube countries in order to develop, implement and follow up national policies, legislation and projects for nutrient reduction and pollution control			
Output 2.2: Development of operational tools for monitoring, laboratory and information management and for emission analysis from point and non-point sources of pollution with particular attention to nutrients and toxic substances	1. Classification of water quality objectives and nutrient and toxics quality conditions is finalized 2. Inventories of emissions from priority point and non-point sources ("hot spots") for P and N are revised 3. Inventory of priority chemicals in line with EU are updated 4. Laboratories are better equipped and operational 5. Information system and network are operational	1. Reviewed standards and river classification 2. Annual lists of N, P emissions from point and non-point sources 3. Reviewed statistics of priority chemicals 4. Results of analysis 5. Annual transmission reports on EU priority substances	1. Criteria for harmonization agreed 2. - 4. Continuous capacity building and training ensured 7. Need for participatory approach
2.2.1 Harmonize water quality standards and quality assurance for nutrients and toxic substances; 2.2.2 Further development of databases for EMIS / MLIM in order to assess environmental stress and impacts, 2.2.3 Optimize TNMN and identify sources and amounts of transboundary pollution for substances on the list of EU and DRPC priority substances 2.2.4 Organize workshops to support strengthening of operational tools for monitoring, laboratory and information management and for emission analysis from point and non-point sources of pollution			
Outcomes: Enhanced capacity of countries to develop policy measures for nutrients and toxic substances reduction based on improved monitoring water quality for toxic substances and nutrients in line with EU WFD requirements, assessment of environmental stress – impact relationship, based on use of common harmonized classification system and standards			

Objective 2: Capacity building and reinforcement of transboundary cooperation for the improvement of water quality and environmental standards in the Danube River Basin

Objective / Output / Activity / Outcome	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
Output 2.3: Improvement of procedures and tools for accidental emergency response with particular attention to transboundary emergency situations	1. Guidelines on accidental pollution prevention are reviewed 2. National stations - PIACs for MD, UA, BiH, SM are fully operational 3. Inventory and assessment of high accidental risks spots are completed in all countries 4. DBAM is improved to respond to pollution transport issues 5. Cooperation on preventive and emergency measures is improved	1. Upgraded Guidelines on interventions during accidents 2. Transmission files 3. , 5. Accessible reports and statistics of emissions 4. Rules of operation of DBAM 5. Completed workshops with trained participants	1. Low priority for the accidental pollution issues in the ministries 2. Delays in regulatory decisions 3. Financial and material resources secured 4. Countries need to receive information and assessment in developing new management skills 5. Methods have not focused on integrating knowledge into practical solutions to intervene during accidents

2.3.1 Reinforce operational conditions in the national AEWS alert centers (PIACs) and geographical extension in Bosnia-Herzegovina and Serbia & Montenegro;

2.3.2 Complete and upgrade the available inventory detailed analysis in respect ARS and design preventive measures; adjust national legislation and improve compliance with safety standards

2.3.3 Maintenance and calibration of the Danube Basin Alarm Model (DBAM), to predict the propagation of the accident pollution and evaluate temporal, spatial and magnitude characteristics in the Danube river system and to the Black Sea;

2.3.4 Organization of workshops to reinforce cooperation in accidental emergency warning and development of preventive measures.

Outcomes:

1. Swifter and better coordinated response to accidents increased in all 13 Danube countries through reinforcement of PIACs (accident alert centers) and geographical extension in Bosnia i Herzegovina and Serbia and Montenegro
2. Reduction of risk of accidents through implementation of check-list methodology used in 50 industrial locations / companies, identified as sites with highest risk potential

Objective 2: Capacity building and reinforcement of transboundary cooperation for the improvement of water quality and environmental standards in the Danube River Basin

Objective / Output / Activity / Outcome	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
Output 2.4: Support for reinforcement of the ICPDR Information System (DANUBIS)	1. Networking within DANUBIS by all ICPDR contracting parties is realized 2. Interactive DANUBIS web site is operational 3. Mechanisms of having access to information are available	1. Number of users of the working area by ICPDR Expert Groups 2. Information exchange during emergency situations 3. Regular updated DANUBIS data base 4. Number of trained users	1. Delays in reaching agreement on the integration within WPPCM 2. Low commitment and limited resources of governments to link to DANUBIS 3. Inadequate user skills 4. Countries must undertake interactions to facilitate transboundary communication

2.4.1 Further develop ICPDR Information System and ensure that it is used by its expert groups and other operational bodies

2.4.2 Link all Contracting Parties of the ICPDR and other participating countries to DANUBIS, which implies the development and implementation of national linkages and the establishment of operational units to communicate also in case of accident emergency situations;

2.4.3 Reinforce DANUBIS through the implementation of an interactive web-site to integrate further textual, numerical and digital mapping information and to fulfill all requirements of the work of the nutrient reduction programme, respectively the work of the ICPDR and the GEF Project (communication, monitoring, public information, etc.);

2.4.4 Launch training at the national level and organize a series of workshops in order to train and assist future users in the best use of the tools made available by the system.

Outcomes:

1. Management of information for the ICPDR on work to manage the DRB enhanced for 130 experts involved in the ICPDR (Secretariat, national experts working on ICPDR expert groups etc.) by the improvement of the DANUBIS information system as evidenced by an expansion of the information available as well as the use of the system (from 1500 hits per month in 2002 to 8,000 hits per month in 2006)
2. Increased public awareness of DRB problems, issues and solutions (including initiatives of the ICPDR, NGOs etc.) due to an improved, more user-friendly ICPDR and project web sites respectively as evidenced by an increase in hits to the web pages from 1000 hits per month in 2002 to 8,000 hits per month in 2006.

Objective 2: Capacity building and reinforcement of transboundary cooperation for the improvement of water quality and environmental standards in the Danube River Basin

Objective / Output / Activity / Outcome	**Objectively Verifiable Indicators**	**Sources of Verification**	**Assumptions and Risks**
Output 2.5: Implementation of the "Memorandum of Understanding" between the ICPDR and the ICPBS relating to discharges of nutrients and hazardous substances to the Black Sea	1. Joint work programme for MoU is applied 2. Reports are produced according to new rules 3. Agreement on regular meetings is concluded	1. Regular meetings (meeting reports) of joint working group 2. – 4. Agreements on the indicators, monitoring and reporting	1. Unequal involvement of ICPDR and ICPBS 2. Delayed national contributions the MoU
2.5.1 Develop joint work programme for MOU implementation 2.5.2 Define and agree on status indicators to monitor nutrient transport from the Danube and change of ecosystems in the Black Sea; 2.5.3 Define and establish reporting procedures 2.5.4 Reestablish and organize regular meeting of the Joint Danube - Black Sea working Groups to evaluate progress of nutrient reduction and recovery of Black Sea ecosystems;*)* 2.5.5 Prepare and organize Stock-taking Meeting on coordination of the Danube and Balck Sea regional project and World Bank Investment Fund in the frame of GEF Strategic Partnership (joint activity with Black Sea Reg. Project and World Bank)			
Outcomes: Joint policy-making framework established and functioning in DRB and Black Sea region for reduction of discharges of nutrients and hazardous substances into the Black Sea.			
Output 2.6: Training and consultation workshops for resource management and pollution control with particular attention to nutrient reduction and transboundary issues	1. Knowledge, professional skills and understanding on nutrient reduction issues are enhanced 2. Training evaluation is updated	1. Number of conducted workshops and trained participants 2. Evaluation Report	1. Lack of participation, differences in competence of participants, absence of certain DRB countries in training workshops
• Based on Training Needs Assessment and Human Resource Development Plan develop training programmes/courses on national, sub-basin or DRB level. • Define target groups and related methodology of dissemination / consultation • Conduct Training Courses as outlined in the 1st phase of the project • Organize training courses for trainers and facilitators as identified in the Training Needs Assessment in support of the DRB Human Resource Development Plan			
Outcomes: 1. Key Danube institutions (e.g. ICPDR) that are managing the DRB enhanced via the building of capacities of 130 experts involved in ICPDR expert groups, ICPDR Secretariat etc. 2. Essential Danube stakeholder groups strengthened in their abilities to reduce pollution due to increased capacities of 300 stakeholder representatives (e.g. environmental NGOs, wetland managers, municipal authorities, agricultural extension service reps., industrial operators etc.)			

Objective 3: Strengthening of public involvement in environmental decision making and reinforcement of community actions for pollution reduction and protection of ecosystems

Objective / Output / Activity / Outcome	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
Output 3.1: Support for institutional development of NGOs and community involvement	1. Optimal operation of DEF secretariat is achieved 2. Knowledge on nutrient and toxic are improved 3. Reports on nutrient and toxic, in national languages, are published 4. Cooperation between NGOs and governments is strengthened	1. Praised service of the Secretariat 2. Implemented training programme 3. Printed publications 4. First partnerships of NGOs and governments	1. Consistent performance of the Secretariat 2. Low interest of NGOs in pollution issues 4. Low willingness of governments to collaborate with NGOs, resp. of NGOs with governments
3.1.1 Provide support for the DEF for operation, communication and information management; 3.1.2 Organize consultation meetings and training workshops on nutrients and toxics issues; 3.1.3 Publish special NGO publications in national languages on nutrients and toxic substances; 3.1.4 Organization of training courses for development of NGO activities and cooperation in national projects.			
Outcomes: 1. Community involvement increased through an expanded and strengthened network (from 30 NGO organizations as members in 2002 to over 200 NGO organizations as members in 2006) to undertake awareness raising and pollution reduction activities in 11 DRB countries; 2. Sustainable operation of the DEF Secretariat achieved , leading the further expansion and effectiveness of the network; 3. Active involvement of DEF members in policy development and pollution reduction activities assured through partnerships with DRB governments (e.g. activities to involve the public in DRB Management Planning process in the frame of the EU Water Framework Directive etc.)			
Output 3.2: Applied awareness raising through community based "Small Grants Programme"	1. Efficient and effective NGO involvement through one regional and two local grants programmes	1. List of proposed and implemented grants projects 2. Local impacts of NGO activities on pollution problems	1. Correct acknowledgement of the SGP ensured 2. Failure of NGO activities
3.2.1 Identify and prepare NGO grants programme and projects for reduction of nutrients and toxic substances and mitigation of transboundary pollution *(accomplished in the Phase 1)* 3.2.2 Prepare and implement region-wide granting programme focusing on demonstration activities and awareness campaigns for sustainable land management and pollution reduction (nutrients) in the agricultural, industrial and municipal sectors; 3.2.3 Prepare and implement national granting programmes for small scale community based investment projects for pollution control, rehabilitation of wetlands, best agricultural practices, reduction of use of fertilizers, manure management, improvement of village sewer systems, etc.			
Outcomes: Awareness of nutrient pollution and toxic substance problems in the DRB and involvement of DRB communities in 11 DRB countries enhanced via 120 national small grant funded projects led by national environmental NGOs and 12 regional small grant projects involving 35 NGOs working on transboundary problems;			

Objective 3: Strengthening of public involvement in environmental decision making and reinforcement of community actions for pollution reduction and protection of ecosystems

Objective / Output / Activity / Outcome	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
Output 3.3: Organization of public awareness raising campaigns on nutrient reduction and control of toxic substances	1. Public campaigns are implemented 2. Sufficient and reliable information for mass media purposes are prepared and published 3. Basin-wide documents are periodically published	1. Number of trained participants and national campaigning activities 2. Public interest in material (e.g. via media reports) 3. Printed and published material	1. Willingness of local administration to support organization of public events; 2. Campaign subject bears local conflicts with polluter 3. Information access restricted 4. Limited funds

3.3.1 Conceptualize and implement public awareness raising campaigns on nutrient-related issues;

3.3.2 Develop and produce materials for public press and mass media on nutrients and toxic substances;

3.3.3 Support publication of technical and scientific documents and regular papers or special issues on water management and pollution reduction with particular attention to nutrient issues and Black Sea recovery.

3.3.4 Capacity building to support the communication structures and mechanisms within the ICPDR, national governments, NGOs and other key stakeholders

Outcomes:

1. Awareness of public in overall DRB on the importance of pollution reduction and environmental challenges has been enhanced through targeted communication activities and campaigns (farmers, municipalities, wetland mangers, environmental NGOs, etc.)
2. Danube Day has been established as an annual event and a platform to raise awareness on pollution control in 13 Danube countries. An estimate of 1 million people have been actively participating in Danube Day activities throughout the region during the last years.
3. ICPDR has become a public oriented institution through enhanced quality of communication and by using awareness raising tools and sustainable means of communication as the Danube Watch Magazine and the web-page.

Objective 3: Strengthening of public involvement in environmental decision making and reinforcement of community actions for pollution reduction and protection of ecosystems

Objective / Output / Activity / Outcome	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
Output 3.4: Enhancing Support of Public Participation in Addressing Priority Sources of Pollution ("hot spots") Through Improved Access to Information in the Frame of the EU Water Framework Directive	1. Strengthened capacity of governmental officials to implement public involvement and of national NGOs to become more effectively involved in implementation of the EU WFD; 2. Strengthened cooperation between government officials, NGOs and other stakeholders; 3. Country-specific measures and practical arrangements supporting NGOs ,citizens and communities involvement in water resources management and pollution control 4. Country-specific strategies for effectively implementing and sustaining public involvement over the long-term; 5. Increased sustainability of the pollution reduction initiatives and results of the DRP generally	1. Number of government officials and NGO members trained 2. Number of requests to governments for information concerning hot spots; 3. Partnerships between government, NGOs and other stakeholders established; 4. Number of multi-stakeholder meetings held; 5. Processes for addressing hot spots are established; 6. Citizens guides, manuals, protocols, exist.	1. Willingness of government officials to cooperate, and demand by NGOs for information. 2. Risk: Government officials give low priority to Aarhus Convention implementation; 3. Lack of identification of appropriate government officials, and other stakeholders needed for successful implementation. 4. NGOs not engaged to demand information for addressing hot spots of pollution.

3.4.1 Precisely determine the Needs for Activities to Enhance Access to Information in the Frame of Improving Public Participation in the DRB

3.4.2 Plan a programme of activities that addresses the priority needs for enhancing access to Information for addressing hot spots of pollution in support of the EU Water Framework Directive and the Aarhus Convention

3.4.3 Implement specific activities to strengthen public participation by enhancing access to information in support of the DRB Public Participation Strategy

3.4.4 Work with specific DRB priority sources of pollution (hot spots) to demonstrate how enhancing access to information facilitates the removal of the pollution source

3.4.5 Assure wide dissemination of results, best practices, lessons learned to other DRB countries to assure consistency in approach

Outcomes:

1. Access to Information on DRB hot spots improved in 5 DRB countries through increased capacities of 100 governmental officials and 100 key stakeholders (environmental NGOs etc.) as well as through the appropriate legal frameworks and tools for providing information that were developed;
2. Pollution reduction processes initiated at 5 hot spots via the conducting of 5 pilot projects that were agreed with the respective key stakeholders for each site based on improved access to information.

Objective 4: Reinforcement of monitoring, evaluation and information systems to control transboundary pollution, and to reduce nutrients and harmful substances

Objective / Output / Activity / Outcome	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
Output 4.1: Development of indicators for project monitoring and impact evaluation	1. Monitoring and evaluation system for project implementation is operational 2. Indicators for emissions and water quality are applied to respond to nutrient concerns 3. Progress indicators for monitoring project progresses are applied 4. Impact indicators to evaluate environmental effects are applied 5. Guidelines for the use of monitoring and impact indicators are available	1. Monitoring and Evaluation System at the ICPDR and at national level 2. Improved statistics on the emissions and water quality status (TNMN yearbooks) 2.-4. Data from monitoring systems 5. Guidelines	1.-5. Continued cooperation of all ICPDR Expert Groups 1.-5. Countries need to apply selected indicators
4.1.1 Establish as DRB system for M&E in using specific indicators for process (legal and institutional frame), stress reduction (emissions, water abstractions and hydromorpological changes) and environmental status (water quality, ecological status and recovery of ecosystems) to demonstrate results and to evaluate environmental effects (nutrients etc.) of implementation of policies and regulations; 4.1.2 Development of indicators to evaluate project progress and to monitor outcomes of this GEF intervention; 4.1.3 Prepare a manual on the use and application of monitoring and impact indicators;			
Outcomes: Status of DRB environment as well as progress and impacts of interventions (especially the UNDP/GEF DRP) monitored by comprehensive, tested and functioning system of indicators for monitoring and evaluation at project level and policy compliance in the 13 DRB countries.			
Output 4.2: Analysis of sediments in the Iron Gate reservoir and impact assessment of heavy metals and other substances on the Danube and the Black Sea ecosystems	1. Assessment of the sediment contents and impact on environment and health in relation to the sediments dynamics are analyzed 2. Recommendations, control measures and monitoring programmes are proposed	1. Report including maps and diagrams showing the existing situation and expected trends 2. Recommendations for Joint Action Programme	1. Appropriate analysis equipment, data and trained personnel available 2. Financial sources assured
4.2.1 Collect and review the existing data and information on the present situation; 4.2.2 Assess the main types and quantities of dangerous substances; 4.2.3 Assess the potential environmental impacts in the Danube and the Black Sea; 4.2.4 Forecast the development for a period of 20 years; 4.2.5 Discuss possible precautionary and rehabilitation measures for the Danube and the Black Sea; 4.2.6 Prepare recommendations for dealing with this problem in the forthcoming decade (measures to be include in the a joint action programme of the ICPDR); 4.2.7 Propose further monitoring programmes.			
Outcomes: The understanding of the impacts on Danube River and Black Sea ecosystem and potential risks of hazardous substances, nutrients and silicates in Iron Gate reservoir sediments increased and programmes developed.			

Objective 4: Reinforcement of monitoring, evaluation and information systems to control transboundary pollution, and to reduce nutrients and harmful substances

Objective / Output / Activity / Outcome	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
Output 4.3: Monitoring and assessment of nutrient removal capacities of riverine wetlands	1. Observation programme to assess annual removal capacities is implemented 2. Effects on pollution removal are assessed and quantified and wetland management schemes are identified 3. DRB governments agree on wetland management plan	1. Observation programme file and data 2. Recommendations for specific wetland management and restoration 3. Government commitment	1. Lack of understanding /support on the need to restore wetlands for pollution reduction 2. Limited availability of other data sources 3. Difference in effects between pollution removal and ecology needs in wetland management 4. Lack in follow-up funding for observation and wetland management programmes

4.3.1 Identify and assess the wetlands and floodplains in the DRB by category and define potential observation sites *(accomplished in the Phase 1)*

4.3.2 Define the methodological approach for assessment of nutrient removal capacities of wetlands and floodplains *(accomplished in the Phase 1)*

4.3.3 Implement the observation programme to assess the annual removal capacity (tons of N & P and of harmful substances per ha) for each category of wetland for a period of 20 years (3 years covered by the present project)

4.3.4 Assess possibilities for follow-up financing of observation programme after 2006;

4.3.5 Evaluate the aggregated removal capacities/potentials of nutrient & other harmful substances for the wetlands proposed for restoration (DPRP), taking into account the results of other investment and observation pro-grams (incl. Danube Partnership, "Lower Danube Green Corridor");

4.3.6 Develop optimized wetland management programmes to assure ecologically acceptable nutrient removal in the Danube River Basin;

4.3.7 Prepare relevant regulations for wetland restoration to assure implementation of projects with ecologically acceptable removal capacities for nutrients & other harmful substances.

Outcomes:

1. Nutrient removal and storage functions in 2 Danube wetland/floodplain sites being assessed (estimated 20 year observation period) using the developed methodological approach for monitoring and assessment;
2. Monitoring approaches for assessing nutrient removal in wetlands and floodplains accepted by DRB wetland managers as well as DRB policy makers and being used;
3. Nutrient removal and storage functions of wetlands and floodplains enhanced through agreement on a DRB wetland management plan.

Objective 4: Reinforcement of monitoring, evaluation and information systems to control transboundary pollution, and to reduce nutrients and harmful substances			
Objective / Output / Activity / Outcome	**Objectively Verifiable Indicators**	**Sources of Verification**	**Assumptions and Risks**
Output 4.4: Danube Basin study on pollution trading and corresponding economic instruments for nutrient reduction	***Carried out only in the Phase 1 of the Project***		
4.4.1 Review existing concepts of successful "pollutant trading / auctions" and corresponding economic instruments in the water and air pollution sector, e.g. in the US, Australia and Europe *(accomplished in the Phase 1)* 4.4.2 Study the principle possibilities of "pollution trading" and corresponding economic instruments for nutrient reduction taking into account the EU policies and directives in the Danube River Basin *(accomplished in the Phase 1)* 4.4.3 Assess the main problems / obstacles for "pollution trading" and possible corresponding economic instruments in the DRB and the interest of the particular DRB countries for implementation *(accomplished in the Phase 1)* 4.4.4 Present the basic findings and discuss the results with all stakeholder groups on a DRB wide workshop			
Outcomes: Understanding by policy makers, regulators, polluters and investors of potential of innovative market-based nutrient pollution control instruments to reduce the nutrient pollution in DRB enhanced.			

ANNEX 3 External Reviews and Response

Annex 3.1 STAP Review (UNDP) and Response

Annex 3.2 World Bank Comments and Response

STRENGTHENING THE IMPLEMENTATION CAPACITIES FOR NUTRIENT REDUCTIOON AND TRANSBOUNDARY COOPERATION IN THE DANUBE RIVER BASIN (Phase 2)
UNDP/GEF: International Waters, Waterbody-Based OP 8 Project

STAP Roster Expert Review
undertaken by

Dr Gunilla Björklund
Marmorv 16A
SE-752 44 Uppsala, SWEDEN

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1. Overall impressions – general soundness

The European Community and the UNDP/GEF have since 1992 supported efforts of the Danube countries and the Interim Commission for the Protection of the Danube River (ICPDR) to ensure effective cooperation towards protection of international waters. In this context the GEF Regional Project, planned within the frame of the Danube/Black Sea Basin Programmatic Approach for the Danube and the Black Sea Basin to complement activities of the ICPDR and the Black Sea Program Implementation Unit was developed. The GEF Regional Project shall *inter alia* facilitate the implementation of the Danube River Protection Convention.

In May 2001 Phase 1 of the UNDP/GEF Danube Regional Project (DRP): "Strengthening of Implementation Capacities for Nutrient Reduction and Transboundary Cooperation" was approved by the GEF Council. According to the current Project Brief the Objectives remains the same for the Second Phase of the Project. The Phase 1, the activities of which are assumed to be concluded by October 2003, was designed as a Preparatory phase to prepare concepts, methodologies, policies, capacity building etc. that is to be implemented during Phase 2.

The Phase 2 Project Brief recognises challenges in this implementation phase including such posed by the implementation of the EU Water Framework Directive concerning water policy. The EU WFD is an important legal framework applicable in meeting the objectives of the DRP for the EU countries as well as the EU accession countries of the region and would be a useful tool also for the other countries, where the Danube Regional Project would work to strengthen their abilities to participate on equal basis within the regional framework.

I had a possibility to undertake a STAP Expert review of the DRP before the GEF Council approval 2001. My overall impressions of the project at that time were very positive. I found, in particular, the basin based approach that includes all riparian countries, with their varying need for assistance as important and well met. I found the project to demonstrate a clear integrated approach and with a strong participatory approach ensured by "supporting NGOs to boost their capacity for active participation within the project by setting up a Small Grants Program". These important aspects are met also in the project brief under Phase 2. They are even strengthened. My concern resulting from the previous review, a weakness concerning analyses of environmental impacts and ecosystem degradation could now be addressed under Component 1 "Creation of sustainable ecological conditions for land use and water management" under the proposed Phase 2. The project brief for the Phase 2 has also developed provisions for an in-depth structure for Monitoring and Evaluation including for useful "lessons learned" that will take care of my other previous concern. The project documentation is detailed and includes evaluation reports etc. from earlier supported projects. The documentation, further, includes detailed references for how to use and

build on experiences from earlier projects including how to implement the framework constructed as a result of Phase 1. All this strengthens my positive overall impression also of Phase 2.

2. Relevance and priority

The project, as the total Danube Regional Project relates highly to the GEF*: International Waters focal area* and has particular relevance under the Operational Program 8: *Waterbody-based Operational Program* in that it aims at helping a group of countries, the riparian countries within the river basin, to work "collaboratively with the support of implementing agencies in achieving changes in sectoral policies and activities so that transboundary environmental concerns degrading specific water-bodies can be solved".

The project is considered to be of high priority, as it would provide for implementation of policies, concepts and methodologies developed under the first phase. Unless provisions for implementation are secured the objectives established in the first phase will not be secured, in particularly for the most downstream countries of the river basin, which should strengthen the prioritisation.

3. Approach

The project approach is building on the approach presented in 2000 but improved by a stronger emphasis on environmental concern. A first priority is to solve environmental concerns by improving the water quality of the degraded river and river basin. Important aspects to achieve this are of course community actions for pollution reduction and protection of ecosystems. To reach more long-term sustainability decision-making capacity, including for public involvement in decision-making are seen as important parts of the project. Such decision-making must be based on policies that provide for water pollution abatement, that is an application of what is embedded in the EU WFP. The project provides for that even though it could have been clearer emphasised in the text.

4. Objectives

The objectives of the Phase 2 of the DRP are according to text in the project brief the same as in what is already approved and would by a successful project implementation be possible to reach.

5. Background and Justification

Extensive background documentation is provided, including on other projects in the Danube River Basin, on River Basin Pollution Reduction, Nutrient Control, Eutrophication and its effects etc. References are also made to the Common Platform, the Transboundary Analysis Report, the Joint Action Programme, the Danube River Basin Management Planning Process in support of EU WFD implementation for the DRB etc. Evaluation reports for the relevant projects are included. These documents give very valuable and important background documentation. Most important is however the documentation on different activities undertaken within Phase 1 of the Danube Regional Project. The Phase 1 project implementation report describes to what extent the different objectives are met; lessons learned by different activities, success criteria and progress related to the expected outputs. The different activities under Phase 2 are also within the Project Brief related to what is achieved during Phase 1, thus what is provided as background documentation gives full justification to the project.

6. Government commitment and sustainability

The governments show clear commitment to pollution control, nutrient reduction and sustainable water management and the Phase 1 of the project is a platform for mobilizing national governments, which is assuring governmental commitment to its implementation phase, Phase 2 that would ensure a more sustainable situation.

7. Activities

The different activities under the Components: to create sustainable ecological conditions; Capacity building for transboundary cooperation for the improvement of water quality and environmental standards; strengthening of public involvement in environmental decision making and reinforcement of community actions for pollution reduction and protection of ecosystems; and reinforcement of monitoring, evaluation and information systems; are to an overwhelming extent grounded in activities initiated at policy or methodological level under Phase 1 and should, successfully implemented ensure for a successful implementation of the DRP. A strong component to ensure NGO participation was introduced during Phase 1 by the setting up of a Small Grants Programme. This is reinforces for Phase 2 which would provide for important cooperation between all actors, governmental as well as NGOs.

8. Project Funding

Phase 2 of the DRP implies that an institutional structure for implementation of the project is already set up which in turns imply financial and structural benefits. A considerable part of the GEF funding, 45.7%, is allotted for awareness raising and NGO activities, one third of which the Small Grants Program. This aspect is to be seen as decisive for the success of the project, which would justify for a considerable funding share. Funding distribution seems otherwise as well to be reasonable, as is a relatively small amount of the overall funding is intended for staffing and a considerable larger proportion for implementation activities.

9. Replicability

Project implementation would ensure for the participating countries to meet their commitments to the DRPC and also to the EU WFD, for EU countries but also for EU accession countries, which will facilitate the enhancement of "good governance" in those countries, a clear replicability demonstrated by the project.

10. Time frame

Given the foundation laid during Phase 1 of the project as well as other projects within the Danube River Basin the given time frame seems reasonable.

11. Global Environmental Benefits and goals of the GEF

Issues addressed within the project and founded under Phase 1 should result in global environmental benefits not only under the International Waters focal area. This is particularly the case as this Phase 2 of the project is also addressing the creation of sustainable ecological conditions for land use and water management as well as the meeting of environmental standards.

12. Rational for GEF support

The project, having a strong component of capacity building and awareness rising of management personnel as well as NGOs through different workshops etc. will assist towards better understanding of environmental concerns including within the existing institutions and to implementing measures that address the priority transboundary environmental concerns. The institutional and legal structure to be developed under the project will assist the countries to work collaboratively to address these concerns.

13. Secondary issues to be addressed

The project, if successfully implemented will contribute towards the protection of wetlands and floodplains, thus towards objectives under the Biodiversity Convention, CBD. It will further strengthen

and enhance community involvement and reinforce capacities to meet with undertakings within the framework of the EU WFD and the Aarhus Convention.

The strong component under the Small Grants Program that was seen as an innovative aspect of the project when it was initiated is now enhanced and would constitute an important insurance for community participation.

14. Additional comments

The project has since its inception developed towards a more integrated, system based project including with a higher degree of environmental concern. Although, the emphasis still will need to be on pollution reduction and improved water quality of the river system towards which all the riparian countries, at national, local and NGO level, need to cooperate, it is important that the project provides for future policy framework that would enhance a redirection towards water pollution abatement.

4 March 2003
Gunilla Björklund

Response from the UNDP/GEF Project Team to the Comments from:

STAP-Roster Independent Technical Review undertaken by:
Dr. Gunila Björklund
Marmorv 16A
SE-752 44 Uppsala, SWEDEN

RE: Strengthening the Implementation Capacities for Nutrient Reduction and Transboundary Cooperation in the DRB (Phase 2)

We appreciate Dr. Gunilla Björklund's comments related to both the structure and the substance of the 2nd Phase of the DRP. Given that the comments were positive and require no specific actions, we would like to provide further details to some important aspects of the review as follows:

3. Approach

We are pleased that it is clear that we have put an emphasis on the linkage between understanding environmental concerns and priorities and then empowering the public's ability to be involved in environmental decision-making; this is a central feature of Phase 2 of the project. An important lesson learned in Phase 1 of the project so far, is that the EU Water Framework Directive (WFD) provides the legislative foundation for meeting the objectives of the DRP while also provides a major basis for assuring the sustainability of project results. This includes, as the STAP reviewer has pointed out, that the WFD provides the basis for implementing the policy approaches that are being developed in the frame of the DRP. Therefore, this close linkage to WFD will now be an important element of the approach for Phase 2 implementation.

7. Activities

In the context of strengthening NGO participation in pollution reduction activities via the Small Grants Programme, we would like to point out that this includes not only "national" grants (conventional approach) but also transboundary grants (NGOs from more than 1 country.) This is closely linked with efforts to further develop the Danube Environmental Forum, the regional network of Danube NGOs and reinforcing the cooperation of various stakeholders across national borders.

8. Project Funding

The emphasis of the project on enhancing stakeholder involvement in environmental decision-making was highlighted by the STAP reviewer. This central focus (reflected in the portion of funding) in Phase 2 of the DRP clearly reflects the recognition of the essential role of appropriate public participation in catalyzing action to reduce pollution in the Danube River Basin.

13. Secondary Issues to Be Addressed

We agree with the reviewer that the implementation of Phase 2 of the DRP by supporting the basin management framework, will not only support pollution reduction and improved water quality, but also provide other (secondary) important benefits e.g. reinforcing the ecosystem approach, appropriate land management, public participation and access to information (in the frame of WFD and the Aarhus Convention.)

14. Additional Comments

The reviewer has underlined an essential feature (and value added) of the DRP to Danube River Basin cooperation: the development of the appropriate policy approaches for addressing priority pollution in the DRB. This is central to Phase 2 activities and the ultimate success of the entire project; the close linkage to EU Water Framework Directive implementation should, as already pointed out, help assure the application of the policy framework as well as the long-term achievement of pollution reduction goals.

Vienna, Austria, March 6, 2003
Ivan Zavadsky, Project Manager,
UNDP/GEF Danube Regional Project

STRENGTHENING THE IMPLEMENTATION CAPACITIES FOR NUTRIENT REDUCTIOON AND TRANSBOUNDARY COOPERATION IN THE DANUBE RIVER BASIN (Phase 2)
UNDP/GEF: International Waters, Waterbody-Based OP 8 Project

IA Review Received from:

Ms. Emila Battaglini
World Bank
GEF Regional Coordinator for ECA

Text of email received as follows:

To: Frank.Pinto@undp.org, Yannick.Glemarec@undp.org, undpgef@undp.org, Andrew.Hudson@undp.org, cathy.Maize@undp.org, Nick.Remple@undp.org, Nadezda.Liscakova@undp.org, Tehmina.Akhtar@undp.org
cc: Ahmed.Djoghlaf@unep.org, gefprojects@unep.org, Kristin.Mclaughlin@rona.unep.org, kennedyW@ebrd.com, wbgefoperations@worldbank.org, gcoordination@worldbank.org, tarin@worldbank.org, Pkrzyzanowski@worldbank.org, Mhatziolos@worldbank.org, mjarosewich@worldbank.org, Jholt@worldbank.org, Ebattaglini@worldbank.org, Mzeki@worldbank.org, Jsrivastava@worldbank.org, Smanghee@worldbank.org, Adamianova@worldbank.org, Anacev@worldbank.org, Drachita@worldbank.org, Ishuker@worldbank.org, khomanen@worldbank.org, Rkhanna2@worldbank.org, Swedderburn@worldbank.org, Daryal@worldbank.org
Subject: IW/OP#8 - REGIONAL Europe: Strengthening the Implementation Capacities for Nutrient Reduction and Transboundary Cooperation in the Danube River Basin (Tranche2) - WORLD BANK'S COMMENTS

Dear Frank:

Please find below comments from our Bank staff for the above proposal:

We have reviewed the Project Brief and have the following comments/requests for clarifications. Besides minor editorial issues, the thrust of our comments is the need for continued enhancement of cooperation and coordination between the Danube Regional Project (DRP) and the WB Investment Fund (IF) to create synergies and avoid duplication of efforts, in the spirit of the integrated approach of the Danube/Black Sea Partnership in which the IF and the regional projects support each other. Through the implementation of the US$ 70 million IF, the Bank is carrying out innovative projects in the Danube/Black Sea Basin which provide very valuable lessons in terms of policy reform, improved knowledge and practices in the agriculture, industrial and infrastructure sectors, monitoring programs as well as best practices that could be replicated across the region. We think that the Danube River Regional Project Tranche 2 would enhance its impact if it linked more with the investment program carried out under the IF. Similarly, Bank IF projects can benefit from more amenable policy environments and increased capacities to implement projects achieved under the regional projects. We would welcome a more strategic approach to the development of Tranche 2 and stronger linkages with the work program carried out under the IF. In this regard, we very much appreciated the recent visits by an ICPDR delegation, including the current President, Executive Director and DRP Project Manager, as well as a visit by the contractor of one of the DRP activities to the Bank's headquarters. Both visits offered a good opportunity to share views and experiences and reinforce our common vision for the protection of the Danube River Basin. We would therefore like to recommend that the DRP Project Brief elaborate in an additional section (maybe I-8?) on areas of cooperation and coordination between the DRP and IF. We, on our side, have initiated activities to foster coordination, including knowledge dissemination (see below) and encouragement of project implementation units to establish a constant dialogue with the ICPDR, and are open to further suggestions.

Specific comments on cooperation and coordination:

- P.23, III 1.3. More information on the "pilot projects", including scale, level of funding, activities supported and outcomes envisaged would be useful. More fundamentally, we would like to know what the rationale for such "pilot projects" is in those countries where the IF is already implementing US$5-7 million projects. For example, the Bank is implementing and preparing Agricultural Pollution Control (APC) Projects in Romania, Bulgaria (as part of the Wetlands Restoration Project), Moldova, and Ukraine (as part of the Azov Black Sea Corridor Biodiversity Conservation). Would it not make sense to focus on the dissemination of lessons learnt from the APC projects and help strengthen capacity to replicate them?
- P.22, III 1.1 Would you please clarify: Will the DRP assist individual DRB countries in developing strategies to come in compliance with EU WFD, or will it take a general DRB? Has work started on this in Phase 1? This is an important piece of information for the IF, as all investment projects in one way or the other support policy change toward harmonizing with the WFD.
- P.24, III 1.4. Would you please clarify what is meant by "standardized " concept for the rehabilitation of sensitive areas/wetlands. Also, it would be very helpful if you elaborated on how "required policy, legal and institutional reforms shall be applied in the case study areas as model for integrated land use in the DRB. " What is the scale of and funding for the intervention? Is there an investment component? One of the activities is stated as "Securing governmental commitments to implement the newly proposed concepts for integrated land use in the selected case study areas." Has consensus with stakeholders in wetland areas been reached? Are stakeholders whose livelihood depend on the economic use of protected areas being compensated? The IF Bulgaria Wetlands Rehabilitation Project has provided significant lessons on the complexities of implementing land use changes in protected wetlands areas and these should be taken into account in proposing any policy changes to the Government. If the lesson have been taken into account, then this should be stated.
- P.30, III 2.6. Could you mention how many topics will be covered in training courses/workshops.
- The WB is organizing a knowledge sharing activities to help disseminate experiences from IF projects. DRP teams working on related policy support, training and pilot project activities are most welcome to take part in these activities. Progress in the development of these activities may be followed at www.worldbank.org/blacksea-danube.

  (i) Regional workshops on Agricultural Pollution Control , first one held in Poland in September 2002 and the second planned for September 2003;

  (ii) A series of video conferences on APC in the Baltic and Black Sea/ Danube regions during the May-June 2003 period;

  (iii) A web page with background studies related to individual APC projects which present a wealth of information about agricultural practices in each country and their environmental impact; and a discussion forum of APC practitioners in the region.

Other comments:

- P.10, I-5 (c) It may be useful for the uninformed reader to have some background information on DABLAS, such as when it was started, who the members are, its objectives. You may also wish to note that the DABLAS process has achieved further prioritization of projects.
- In referring to the Serbia and Montenegro, you may wish to use this name rather than the old name, "Yugoslavia".

- The Project Brief refers to the "World Bank GEF Investment Fund for Nutrient Reduction in the Danube/Black Sea Basin" by its old name, "WB GEF Strategic Partnership". To avoid confusion, it would be useful to correct this reference with the name of the overall "GEF Strategic Partnership on the Danube/Black Sea Basin", which constitutes the umbrella over the Investment Fund and the two Regional Projects.

Finally, the brief does not make any reference to the UNDP-led IW: Lear Project, which could provide strategic support in disseminating valuable experience and lessons learned from Phase 1 and Phase 2 of this regional project.

Specifically, there is broad scope to take the lessons learned from the application of appropriate economic instruments, such as tariffs for water supply and sanitation, enforcement of polluter pays principles, and introduction of incentives and regulations for elimination of phosphate in detergents in demonstration sites, for replication and scaling up.

Kind regards.

Emilia Battaglini
GEF Regional Coordinator for ECA

Response from the UNDP/GEF Project Team to the Comments from:

World Bank Technical Review provided by:
Emilia Battaglini
GEF Regional Coordinator for ECA
World Bank
Washington, D.C., USA

RE: Strengthening the Implementation Capacities for Nutrient Reduction and Transboundary Cooperation in the DRB (Phase 2)

We appreciate Ms. Battaglini's comments related to the 2nd Phase of the DRP. Please find below our response to specific points that were raised.

Enhancement of Cooperation and Coordination Between the UNDP/GEF Danube Regional Project (DRP) and the WB Investment Fund (IF)

We concur with the importance that Ms. Battaglini has given to the need for the IF and the DRP (as well as the BSERP) to assure appropriate cooperation and coordination between respective activities. Considering this, and given consultations with the GEF Secretariat, we have now included in the Project Brief a Danube-Black Sea Stock-taking meeting that we will organize in cooperation with the IF and the BSERP at the beginning of Phase 2 activities in 2004. This will provide a further for forum coordination as well as to discuss implementation issues that are key to the ultimate success of the GEF Black Sea Basin Programmatic Approach. The discussions should include determining the most effective means for national level activities, like those being supported b y the IF, to be disseminated by the DRP at the basin-wide level. One immediate step that we would like to initiate, is the use of the DRP web page, through appropriate links to IF web pages, as a platform for information exchange at the DRB wide level.

Further, we will, continue our efforts to develop direct cooperation with specific IF projects already under implementation like we already have with the Bulgarian Wetlands project and the Romanian APC project. We would further welcome communication and involvement concerning new projects that the IF is developing so that cooperation with and within the DRP can be assured.

Pilot Activities

The DRP is developing pilot activities related to components concerning agricultural policy and land use. In both cases, the activities are to initiate pilot activities that will both assist in developing appropriate policy approaches that can be utilized throughout the DRB, as well as that can lead to real impacts in the specific pilot locations. In this sense, the pilot activities are to be complementary the IF projects related to agriculture and land/use wetlands. For example, in the Land Use Assessment component (1.4), the focus is on relieving specific pressures on existing wetlands (better management practices) rather than specific large-scale wetland restoration activities like funded by the IF. In both thematic areas, DRP consultants are in contact with IF project teams to assure cohesion of results, approach and to obtain lessons learned. In this context, the Bulgarian Wetlands project team has been directly engaged in the corresponding DRP wetland activities most recently in a DRB Wetlands Manager meeting in March 2003.

More specific details on scale, level of achievement to be expected and possible financing needs will be a result of this Phase 1 planning activity. Multi-stakeholder meetings are, for example, being organized in the pilot wetland areas as part of these preparations.

WFD: Helping individual countries develop a plan on to meet EU WFD

Ms. Battaglini rightly points out the importance of assisting countries to meet WFD requirements. As reflected in the Project Brief, particularly in Component 1.1, the DRP, at the request of the ICPDR and its parties, is assisting DRB countries to prepare for and implement the WFD. While the focus is on helping them to meet the requirements at the regional level (DRB Management Plan,) the process established and tools developed are directly relevant to meeting needs at the national level. In this sense, the DRP is providing an opportunity for non-accession countries (Serbia & Montenegro, Bosnia & Herzegovina, Moldova and the Ukraine) to participate on an equal basis.

DRP Training Activities

Many of the training topics being considered for implementation of training courses in the 2nd Phase are listed in the Project Brief under component 2.6. Currently, a training consultant is undertaking a training needs assessment to help identify priorities. In this sense we have added text to the Project Brief to highlight the obvious importance of linking to relevant activities in IF supported projects as well as to benefit from specific lessons learned.

DABLAS

Please note that concerning DABLAS, information is provided in sections I-1 as well as I-5 of the Project Brief.

UNDP: IW Learn

The importance of cooperation with IW Learn has been highlighted in section V- 1 "Lessons Learned." Specific areas of cooperation are being considered in the frame of the training needs assessment and the DRP's efforts to enhance the dissemination of information (DRB Communications Strategy.) Discussions have already begun between IW Learn and the Danube Environmental Forum about strengthening the capabilities of this NGO network to facilitate information flow and exchange of best practices in the DRB.

Vienna, Austria, March 31, 2003
Ivan Zavadsky, Project Manager,
UNDP/GEF Danube Regional Project

ANNEX 4 Project Budget – Project Tranche 2

Danube Regional Project – Tranche 2 / Budget

Project Components and Objectives	Permanent Project Staff				Sub-contractors/ Int. Consultants (18000 USD/month)		National Consultants (5000 USD/month)		Workshops/Training Courses/Meetings (natl.: 50 USD /day/partic., 20 USD travel) / (intl.: 120 USD/day/partic.; 500 USD travel / partic.)				Investments (Small Grants, equip./trans.)	Operation & administrative support	Support cost UNOPS/ ICPDR	TOTAL Budget
	Professional Staff		Admin. Technical Support Staff													
	Months	USD	Months	USD	Months	USD	Months	USD	No of WS	No of Particip.	No of days	USD	USD	USD	USD	USD
1. Creation of sustainable ecological conditions for land use and water management																
General Project Costs	20	260,000	40	250,000									20,000	170,000	254,780	954,780
1.1 Development and implementation of policy guidelines for river basin and water resources management.					8	144,000	40	200,000	10	30	2	117,000				461,000
1.2 Reduction of nutrients and other harmful substances from agricultural non-point sources through agricultural policy changes					5	90,000	20	100,000	11	25	2	107,250				297,250
1.3 Development of pilot projects on reduction of nutrients and other harmful substances from agricultural non-pt. & point-sources					6	108,000	40	200,000	5	40	2	98,000	350,000			756,000
1.4 Policy development for wetlands rehabilitation under the aspect of appropriate land use					4	72,000	12	60,000	3	40	2	58,800				190,800
1.5 Industrial reform and development of policies and legislation for application of BAT (best available techniques including cleaner technologies) towards reduction of nutrient (N and P) and dangerous substances					7	126,000	15	75,000	11	30	2	128,700				329,700
1.6 Policy reform and legislation measures for development of cost-covering concepts for water and waste water tariffs, focusing on nutrient reduction and control of dangerous substances					1	18,000	5	25,000	11	30	2	128,700				171,700
1.7 Implementation of effective systems of water pollution charges, fines and incentives, focusing on nutrients and dangerous substances					2	36,000	8	40,000	11	30	2	128,700				204,700
1.8 Recommendations for the reduction of phosphorus in detergents					1	18,000	6	30,000	1	40	2	25,600				73,600
SUBTOTAL	**20**	**260,000**	**40**	**250,000**	**34**	**612,000**	**146**	**730,000**	**63**	**265**	**16**	**792,750**	**370,000**	**170,000**	**254,780**	**3,439,530**

Project Components and Objectives	Permanent Project Staff				Sub-contractors/ Int. Consultants (18000 USD/month)		National Consultants (5000 USD/month)		Workshops/Training Courses/Meetings (natl.: 50 USD /day/partic., 20 USD travel) / (intl.: 120 USD/day/partic.; 500 USD travel / partic.)				Investments (Small Grants, equip./trans.)	Operation & administrative support	Support cost UNOPS/ ICPDR	TOTAL Budget
	Professional Staff		Admin. Technical Support Staff													
	Months	USD	Months	USD	Months	USD	Months	USD	No of WS	No of Particip.	No of days	USD	USD	USD	USD	USD
2. Capacity building and reinforcement of transboundary cooperation for the improvement of water quality and environmental standards in the DRB																
General Project Costs	10	130,000	20	125,000										90,000	145,130	490,130
2.1 Setting up of "Inter-ministerial Committees" for development, implementation and follow-up of national policies legislation and projects for nutrient reduction and pollution control *(carried out in the Phase 1)*																
2.2 Development of operational tools for monitoring, laboratory and information management and for emission analysis from point and non-point sources of pollution with particular attention to nutrients and toxic substances					1	18,000	15	75,000	7	22	4	112,420	112,810			318,230
2.3 Improvement of procedures and tools for accidental emergency response with particular attention to transboundary emergency situations					1	18,000	15	75,000	6	22	2	64,680	100,000			257,680
2.4 Support for reinforcement of ICPDR Information and Monitoring System (DANUBIS)					8	144,000	16	80,000	5	22	2	53,900	100,000			377,900
2.5 Implementation of the "Memorandum of Understanding" between the ICPDR and the ICPBS relating to discharges of nutrients and hazardous substances to the Black Sea									4	52	2	133,120				133,120
2.6 Training and consultation workshops for resource management and pollution control with particular attention to nutrient reduction and transboundary issues					7	126,000			12	35	3	256,200				382,200
SUBTOTAL	**10**	**130,000**	**20**	**125,000**	**17**	**306,000**	**46**	**230,000**	**34**	**1024**	**94**	**620,320**	**312,810**	**90,000**	**145,130**	**1,959,260**

Project Components and Objectives	Permanent Project Staff				Sub-contractors/ Int. Consultants (18000 USD/month)		National Consultants (5000 USD/month)		Workshops/Training Courses/Meetings (natl.: 50 USD /day/partic., 20 USD travel) / (intl.: 120 USD/day/partic.; 500 USD travel / partic.)				Investments (Small Grants, equip./trans.)	Operation & administrative support	Support cost UNOPS/ ICPDR	TOTAL Budget
	Professional Staff		Admin. Technical Support Staff													
	Months	USD	Months	USD	Months	USD	Months	USD	No of WS	No of Particip.	No of days	USD	USD	USD	USD	USD
3. Strengthening of public involvement in environm. decision making and reinforcement of community actions for pollution reduction and protection of ecosystems																
General Project Costs	6	78,000	8	50,000										124,192	431,266	683,458
3.1 Support for institutional development of NGOs and community involvement	7	49,000					7	35,000						300,000		384,000
3.2 Applied awareness raising through community based "Small Grants Programme"	15	105,000			6	108,000	24	120,000					1,800,000			2,133,000
3.3 Organization of public awareness raising campaigns on nutrient reduction and control of toxic substances	20	140,000			1	18,000	7	35,000	7	35	2	156,800	555,000			904,800
3.4 Public participation and access to information	11	77,000			25	450,000	33	165,000	33	33	3	827,640	197,200			1,716,840
SUBTOTAL	**59**	**449,000**	**8**	**50,000**	**32**	**576,000**	**71**	**355,000**	**33**	**1089**	**99**	**984,440**	**2,552,200**	**424,192**	**431,266**	**5,822,098**
4.Reinforcement of monitoring, evaluation and information systems to control transb. pollution, and to reduce nutrients and harmful substances																
General Project Costs	7	91,000	13	81,250										70,000	57,712	299,962
4.1 Development of indicators for project monitoring and impact evaluation					2	36,000	11	55,000	1	35	2	17,150				108,150
4.2 Analysis of sediments in the Iron Gate reservoir and impact assessment of heavy metals and other substances on the Danube and the Black Sea ecosystems					6	108,000	10	50,000								158,000
4.3 Monitoring and assessment of nutrient removal capacities of riverine wetlands					6	108,000	12	60,000						45,000		213,000
4.4 Danube Basin study on pollution trading and corresponding economic instruments for nutrient reduction																
SUBTOTAL	**7**	**91,000**	**13**	**81,250**	**14**	**252,000**	**33**	**165,000**	**1**	**35**	**2**	**17,150**	**0**	**115,000**	**57,712**	**779,112**
TOTAL BUDGET	**96**	**930,000**	**81**	**506,250**	**97**	**1,746,000**	**296**	**1,480,000**	**131**	**2413**	**211**	**2,414,660**	**3,235,010**	**799,192**	**888,888**	**12,000,000**

ANNEX 5 Project Implementation Schedule – Project Tranche 2

Project Implementation Schedule - Danube Regional Project - Tranche 2

	PROJECT COMPONENTS AND OBJECTIVES
1.	**Creation of sustainable ecologic. conditions for land use and water management**
1.1	Development and implementation of policy guidelines for river basin and water resources management
1.2	Reduction of nutrients and other harmful substances from agricultural point and non-point sources through agricultural policy changes
1.3	Development of pilot projects on reduction of nutrients and other harmful substances from agricultural point and non-point sources
1.4	Policy development for wetlands rehabilitation under the aspect of appropriate land use
1.5	Industrial reform and development of policies and legislation for application of BAT
1.6	Policy reform and legislation measures for the development of cost-covering concepts for water and waste water tariffs
1.7	Implementation of effective systems of water pollution charges, fines and incentives, focusing on nutrients and dangerous substances
1.8	Recommendations for the reduction of phosphorus in detergents
2.	**Capacity building and reinforcement of transboundary cooperation**
2.1	Setting up of "Inter-ministerial Committees" *(implemented in the Project Phase 1)*
2.2	Development of operational tools for monitoring, laboratory and information management and for emission analysis from point and non-point sources of pollution
2.3	Improvement of procedures and tools for accidental emergency response with particular attention to transboundary emergency situations
2.4	Support for reinforcement of ICPDR Information System (DANUBIS)
2.5	Implementation of the "Memorandum of Understanding" between the ICPDR and the ICPBS relating to discharges of nutrients and hazardous substances to the Black Sea
2.6	Training and consultation workshops for resource management and pollution control with particular attention to nutrient reduction and transboundary issues
3.	**Strengthening of public involv. in envir. decision making and reinforc. of community actions**
3.1	Support for institutional development of NGOs and community involvement
3.2	Applied awareness raising through community based "Small Grants Program"
3.3	Organization of public awareness raising campaigns on nutrient reduction and control of toxic substances
3.3	Public participation and access to information
4.	**Reinforcement of monitoring, evaluation and information systems for control of transboundary pollution, for reduction of nutrients and harmful substances**
4.1	Development of indicators for project monitoring and impact evaluation
4.2	Analysis of sediments in the Iron Gate reservoir and impact assessment of heavy metals
4.3	Monitoring and assessment of nutrient removal capacities of riverine wetlands
4.4	Danube Basin study on pollution trading and corresponding economic instruments for nutrient reduction