

# **UNDP-GEF Danube Regional Project**

## **Project Implementation Plan**

**Phase 1 (2002-2003)**

*(Revision 10.04.2002)*

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# UNDP/GEF Danube Regional Project Fact Sheet

## Fact Sheet

Project Title:	<i>Strengthening the Implementation Capacities for Nutrient Reduction and Transboundary Cooperation in the Danube River Basin</i>
Short Title:	<i>Danube Regional Project – Phase 1</i>
Project Number:	RER/01/G32/A/1G/31
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Beneficiary countries:	Bosnia & Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Moldova, Romania, Slovakia, Slovenia, Federal Republic of Yugoslavia, Ukraine
Implementing Agency:	UNDP
Executing Agency:	UNOPS (in cooperation with ICPDR).
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### Abbreviations

DRP	UNDP/GEF Danube Regional Project
DRB	Danube River Basin
ICPDR	International Commission for the Protection of the Danube River
PIP	DRP Project Implementation Plan
BSRP	Black Sea Regional Project
JAP	Joint Action Programme of the ICPDR 2001-2005
AEWPS EG	Accident and Early Warning Prevention System Expert Group of the ICPDR
ECO EG	Ecological Expert Group
EMIS EG	Emissions Expert Group...
MLIM EG	Monitoring, Laboratory and Information Management Expert Group
RBM EG	River Basin Management Expert Group
GIS SEG	Geographic Information System Sub-Expert Group of the RBM EG

### Relevant Web Sites

<a href="http://www.icpdr.org">www.icpdr.org</a>	information on the ICPDR and the UNDP/GEF DRP
<a href="http://www.bsep.org">www.bsep.org</a>	information on the BSRP and on the Black Sea Commission
<a href="http://wbln0018.worldbank.org/eca/ecssd.nsf/ecadocbylink/black+sea+and+danube+basin+partnership">http://wbln0018.worldbank.org/eca/ecssd.nsf/ecadocbylink/black+sea+and+danube+basin+partnership</a>	Information on the entire GEF Strategic Partnership on the Black Sea and Danube Basin as well as the World Bank Investment Fund for Nutrient Reduction in the Black Sea/Danube Basin
<a href="http://www.undp.org/gef">www.undp.org/gef</a>	UNDP/GEF project activity information
<a href="http://www.gefweb.org">www.gefweb.org</a>	information on all GEF activities
<a href="http://www.unops.org">www.unops.org</a>	information on United Nations Office Of Project Services activities

## Introduction

This *Project Implementation Plan* (PIP) lays out the details for carrying out Phase 1 of the Danube Regional Project (DRP) (2002-2003) and should thereby serve as the guide to all relevant Danube River Basin (DRB) project stakeholders for project implementation.

The *Inception Workshop* (see Report, Feb. 28, 2002) brought together, in a participatory approach, major DRB stakeholders to help prepare project implementation in consideration of the objectives of the ICPDR Joint Action Programme as well as the Work Plans of the ICPDR Expert Groups. The participants reviewed the DRP's activities, expected outputs, respective inputs (from consultants, the ICPDR Expert Groups and other stakeholders etc.) timeframe as well as the necessary implementation arrangements and made suggestions for improvement.

The *Project Implementation Plan* is based on the official UNDP/GEF Danube Regional Project Document. It incorporates the substantive guidance of the Inception Workshop (see [www.icpdr.org](http://www.icpdr.org) for full versions of these documents) as well as inputs from the UNDP/GEF Project Staff and the ICPDR Secretariat, needed to fill any gaps, clarify inconsistencies, and to meet UNOPS/UNDP/GEF implementation requirements.

The exact course of implementation for some project activities will be determined during the coming months based on the results of linked activities, the availability of external inputs etc. These special cases are specifically noted in the PIP.

## Objectives of the UNDP/GEF Danube Regional Project

The long-term development objective of the DRP is to contribute to sustainable human development in the DRB through reinforcing the capacities of participating countries to develop effective mechanisms for regional cooperation in order to ensure protection of international waters, sustainable management of natural resources and protection of biodiversity.

The *overall objective* of the DRP is to complement the activities of the ICPDR required to strengthen a regional approach for solving transboundary problems. This includes the development of national policies and legislation, the definition of priority actions for pollution control, especially nutrient reduction, as well as the achieving of sustainable transboundary ecological conditions within the DRB and the Black Sea basin area. The DRP will facilitate the implementation of the Danube River Protection Convention (DRPC) as well as assist those DRB countries in the EU accession process to meet the requirements of EU water related Directives with emphasis on the EU Water Framework Directive (WFD.) It is also designed to support key strategies of the GEF International Waters Programme.

In this context, the DRP will support the ICPDR, its structures and the participating countries in order to ensure effective implementation of the Strategic Action Plan 1994 (SAP 1994), the Common Platform (2000) and the ICPDR Joint Action Programme (JAP) (2001.)

The following DRP *immediate objectives* support the overall development objective as well as the objectives of the entire GEF Danube/Black Sea Basin Strategic Partnership Programme:

- |                     |   |
|---------------------|---|
| <b>Objective 1:</b> | Creation of sustainable ecological conditions for land use and water management,  |
| <b>Objective 2:</b> | Capacity building and reinforcement of transboundary cooperation for the improvement of water quality and environmental standards in the DRB,                     |
| <b>Objective 3:</b> | Strengthening of public involvement in environmental decision making and reinforcement of community actions for pollution reduction and protection of ecosystems, |
| <b>Objective 4:</b> | Reinforcement of monitoring, evaluation and information systems to control transboundary pollution, and to reduce nutrients and harmful substances.               |

## **Overall Project Implementation Arrangements**

The project is designed to strengthen the capacities of the ICPDR, its structures (Secretariat, Expert Groups etc.) its member countries and their respective activities. The, ICPDR is both a primary beneficiary of as well as an essential mechanism for, project implementation. Many project activities are designed to directly support and enhance the work programmes of the ICPDR Expert Groups. The Project team, lead by the Project Manager, will work in consultation with the Secretariat, the Expert Group Chairmen and Heads of Delegation (HoD) and will report to the ICPDR Steering Group and Plenary meetings on progress and specific issues of cooperation.

It is equally important that the ICPDR, its Secretariat, HoD and EG members support and facilitate DRP implementation, particularly in their respective countries. Besides this general support, specific inputs needed from the respective Expert Groups to carry out specific activities have been identified and must be provided in a sufficient and timely basis to achieve the desired results. Further, EGs will need to provide technical guidance to Consultants hired within the frame of the DRP as needed.

Cooperation with the respective HoDs and their national delegations is also essential, concerning all DRP activities at the national level, including the work of national consultants as well as for other specific project outputs ( eg. Inter-ministerial Coordination Mechanisms etc.)

Besides supporting project activities that relate directly to the work programmes of ICPDR EGs, the DRP will also provide financial support to those EG meetings where DRP activities represent a significant part of the meeting agenda (taking decisions, providing guidance, data, methodology or where the consultant will provide input etc.) In some cases, special EG meetings may be organized to specifically address DRP activities. In other cases, additional days may be added to regular EG meetings to deal with DRP topics. The DRP will support both.

The GEF Programmatic Approach for the Danube River/Black Sea Basin consists of the 1) two regional projects i.e. the UNDP/GEF Danube Regional Project and the UNDP/GEF Black Sea Regional Project as well as 2) the World Bank/GEF Danube/Black Sea Partnership Programme. Given their complementarity and close interlinkages, the DRP will cooperate with these other GEF components where appropriate.

The UNDP/GEF Project Manager and his team are responsible for project implementation and for management decisions necessary to efficiently and effectively reach project objectives with the given budgetary resources and in the given time frame.

## **Objective 1: The Creation of Sustainable Ecological Conditions for Land Use and Water Management**

**Output :** Concepts for nutrient reduction policies and legal instruments and measures for compliance are developed for all Danube River Basin countries with particular attention to the EU Water Framework Directive, integrated river basin management, best agricultural practices, appropriate land use and wetlands management and economic instruments.

**Approach :** Supporting the ICPDR and the DRB countries in developing of appropriate policies and legal instruments for river basin management, appropriate land use, improved water management and water quality control with particular attention to nutrient reduction and toxic substances (e.g. agricultural, industrial, and municipal policy and legislative reforms, wetlands management) and in developing mechanisms for exacting compliance with policies and legislation.

Assuring policy coherence to the guidelines of the Global Programme of Action on Control of Land Based Sources of Pollution, with particular emphasis on the strategic goals regarding mitigation of transboundary effects and rehabilitation of the Black Sea.

## Output 1.1 Development and implementation of policy guidelines for river basin and water resources management

### Tasks

This project output will assist the DRB countries in the development of common tools and in implementation of common approaches, methodologies and guidelines for sub-basin management plans. The project will assist in the implementation of EU Water Framework Directive in DRB in order to implement a basin wide concept of River Basin management.

To assure efficient implementation of the EU Water Framework Directive and a coherent approach to River Basin Management, the ICPDR has set up a specialized Expert Group to develop guidelines for the elaboration of the River Basin Management Plans, their implementation and the development of institutional and legal mechanisms.

During the Phase 1 of the Danube Project concepts and analytical material will be prepared, which later during Phase 2 of the Project will be implemented in form of national contributions, pilot projects and workshops on river basin management and implementation of the EU WFD.

### Implementation Arrangements

The special Expert Groups set up by the ICPDR shall be supported by international consultants/subcontractor with expertise in RBM, in particular in the implementation of the EU WFD and familiar with GEF IW strategies.

The country specific data and information have to be provided by national consultants /experts according to the provisions provided by the EG and the international consultant/subcontractor.

The relevant project activities should be coordinated with other closely linked project activities dealing with the ICPDR information system DANUBIS (2.4), water tariffs and water pollution charges (1.6 and 1.7) and wetland rehabilitation and nutrient removal capacity (1.4 and 4.3).

### Work Plan

Activity	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
1.1-1: Identify the River Basin District (RBD), with particular attention to coastal waters, and develop respective maps for RBD and sub-units	Collect and synthesize national information	GIS data sets (Harmonize and digitize data)	Basic criteria (scale, projection, etc.) and reference system	Jul-Dec 02
	Produce the basic map (to be linked to 1.1-5)	DRB district map in GIS format, with the boundaries of the DRB as a layer conform to the basic map		Jan - Jun 03
1.1-2: Adapt and implement common approaches and methodologies for stress and impact analysis with particular attention to hydromorphological conditions	Development of methodological approach (criteria for significant impact)	Methodological approach (criteria for significant impact)	MLIM, ECO- and RBM/EGs: - discuss draft proposal and outputs - initiate national contributions (incl. "hydromorph. passports")	Sept 02 - Sept 03
	Overview of stress and impacts caused by changes of hydromorphological conditions in the Danube River	Stress and impact analysis with particular attention to hydromorph. conditions in the Danube river		



Activity	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
1.1-3: Apply the EU Guidelines for economic analysis and arrive at the overall economic analysis for the Danube River Basin	Organize introductory workshop to disseminate knowledge on economic analysis according to EU Guidelines”(available in June 02)	Introductory workshop and workshop report on economic analysis Phase 1	Conceptual approach developed by the Economic Drafting Group /RBM EG	Jul-Sept 02
	Produce draft guidelines for preparation of report on data assessment Collect and assess national economic data	Draft guidelines for preparation of report on data assessment Status report on economic data and gaps	Facilitate economic data collection	Sept 02 - Jul 03
	Carry out assessment of national capacities to produce economic analysis	Assessment report on national capacities to produce economic analysis	Facilitate assessment	Jul 02 – Jun 03
	Organize workshop to present results of Phase 1 and prepare Phase 2 of economic analysis	Workshop and workshop report including recommendations for Phase 2 (national economic analysis)		Jul-Oct 03
1.1-5: Develop RBM tools (mapping, GIS) and related data management	Harmonize approach and prepare work programme for processing digital information at national level	Harmonized approach and prepared work program for processing digital information at nat. level	1. Define GIS map layers 2. Update survey on existing GIS systems in Danube countries	July-Nov 02
	Support those countries that have yet to create digital database (Process and make available digitized information for GIS)	Complementary data sets for certain countries	List of data required by WFD (digital)	Nov 02 – Sept 03
	Synthesize and harmonize digital data	Harmonized digital data sets (basic DRB map)	Facilitate and provide data model	Nov 02 - Sept 03
	Identify and prepare layers for the selected DRB maps	Prepared DRB map structure		Jun-Sept 03
	Carry out feasibility study for data and inform. management (incl. reporting obligations)	Feasibility study on information format and reporting obligations	Outline for the development of the TOR	March - Sept 03
1.1-6: Develop the typology of surface waters and define the relevant reference conditions	Carry out study on the typology and reference conditions for the Danube River	Proposal (Study) for typology and reference conditions for the Danube River (relation to 2.2-1)	MLIM paper: recommendation for typology MLIM classification system	Sept 02 - June 03
1.1-7: Implement ecological status assessment in line with requirements of EU WFD using specific bio-indicators	Carry out overview study on existing ecological status assessment and classification systems in the DRB in cooperation with EU STAR project	Overview study on existing ecological status assessment and classification systems in the DRB in cooperation with EU STAR project	1. MLIM – study on classification systems in the DRB on biomonitoring; 2. SOP (Standard Operational Procedures) for biomonitoring for TNMN (MLIM); 3. JDS Database	Sept 02 - Jun 03

<b>Activity</b>	<b>Implementation Steps</b>	<b>Specific Outputs</b>	<b>ICPDR Expert Groups Input</b>	<b>Time Frame</b>
1.1-8: Characterization and analysis of transboundary groundwater bodies	Complete DRB groundwater inventory based on existing national inventories	Comprehensive basin-wide groundwater inventory	Strategy and methodology for description and analysis	Sept 02 – Mar 03
	Characterization and analysis of transboundary groundwater bodies including maps	Characterization of transboundary groundwater bodies including maps	Comment on draft transboundary groundwater report	March – Sep 03
1.1-9: Identify pilot river basins and apply common approaches, methodologies, standards and guidelines (taking into account relevant activities within the EU WFD implementation strategy)	Identify pilot river basins within the DRB  (Analyse and describe proposed pilot river basins; propose priority basins)	List of selected pilot river basins	Identify pilot river basins, taking into account pilot river basin projects funded through other sources (activities 1.3-3 and 1.4-2)	Oct 02- Jan 03
	Prepare TOR for producing RBM plans in the pilot river basin (build on available EU guidance documents)	Recommendation for implementing available RBM plan guidelines in DRB pilot basin (possible combining with activities 1.4-2 and 1.3.3)	Comment on draft TOR	Jan-June 03
1.1-11: Organize workshops in order to produce the River Basin Management Plan and to strengthen basin-wide cooperation	Workshop on surface water (related to Activity 1.1-6 & 1.1-7) on development of ecological status classification systems”	Workshop on surface water (related to Activity 1.1-6 & 1.1-7) and workshop report  Workshop on groundwater (related to Activity 1.1-8) and workshop report	Guidance for workshop program on surface and groundwater following RBM EG issue paper	
	Workshop on groundwater (related to Activity 1.1-8) on characterization and analysis of groundwater bodies”			
	Workshop on development of mechanisms for public information and consultation”	Workshop and workshop report;	Guidance for workshop program on Public Participation following the RBM EG issue paper	

## **Output 1.2 Reduction of nutrients and other harmful substances from agricultural point and non-point sources through agricultural policy changes**

### **Tasks**

This project output focuses on assisting the DRB countries in designing new agricultural non-point source pollution control policies and legislation ("sustainable agriculture") as well as compliance and enforcement plans in line with the existing and emerging (driven by EU accession process) national legislation.

In Phase 1 of the DRP, a first analysis should be based on a revised "hot spot" inventory of point and non-point sources of pollution and take into account the findings and recommendations of the field-based demonstration programmes conducted in Eastern European countries with the support of the EU and GEF.

The project will update the information on the use of agrochemicals and identify specific policy and legal measures to assist the participating countries in meeting their obligations to reduce agricultural point and non-point source pollution.

For EU accession countries, specific programs will be developed that will assist them in meeting their obligations under the EU Water Framework Directive, as well as the requirements of the important Nitrate Directive (91/676/EEC).

In Phase 2 of the Project policy and legal recommendations will be worked out for DRB governments to reinforce the introduction of "best agricultural practice" and to optimise the use of agrochemicals.

The main focus of this assistance is to identify for each DRB country the main administrative, institutional and funding deficiencies and to develop priority reform measures for policies which are expected to best support the integration of environmental concerns into farm management ("best agricultural practices"), including improvements in the handling of manure and sludge from livestock operations, minimization of chemical fertilizers and pesticides, promotion of improved tillage methods, management of restored wetlands and buffer zones as well as farmer education and outreach activities.

### **Implementation Arrangements**

The project activities should be carried out under the responsibility of an international consultant / subcontractor with particular expertise in both environment policy and legislation, in sustainable agriculture and in agricultural technologies applied in Central and Eastern European countries. The consultant should be familiar with the concept of "best agriculture practice" and relevant EU legislation, in particular with the Nitrate Directive.

The country-specific data and information have to be provided by national consultants / experts according to the provisions given by the international consultant/subcontractor.

The project activities should be carried out in close cooperation with the ICPDR expert groups, in particular EMIS EG and relevant national institutions responsible for agricultural policy development.

Component 1.2 should be executed by the same consultant team as component 1.3.

## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
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)	Develop concept and Update the basin-wide Inventory on Agricultural Point and Non-point Sources of Pollution	Updated and completed Inventory and assured coherency of N and P loads-related data supplied by national consultants in the Emission Inventory 2000  Extension of EMIS 2000	Point discharges by May 02/ Emission inventory 2000  Non –point discharges /Inventory /MONERIS Project (02/03)	July 02 - Oct 03
	N and P completely included in the Inventory			
	Assure the inclusion of FRY in the Inventory			
1.2-2: Review relevant legislation, existing policy programs and actual state of enforcement in the DRB with respect to promotion and application of BAP practices	Review and update data and information in the DRB countries taking into account the results of UNDP/GEF /DPRP, EU/PHARE 301/91 and the results of JAP 3.4 Reduction of Pollution from Non-Point Sources	Summary report on agricultural policies and state of enforcement in DRB, including comparison with EU/CAP	Results of actions from JAP 3.4: Reduction of Pollution from Non-Point Sources	July 02 - Oct 03
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	Inventory of single major pesticides (active ingredient) by country, basin-wide  Compilation of a report on the use of major single pesticide ingredients (indicate CAS numbers) analyzing the misuse in application, their environmental impacts and potential for reduction	New inventory for the use of pesticides  Report on the use of major single pesticide ingredients	Component 6 of PHARE project ZZ 77/79/5	July 02 - Aug 03
	Inventory of fertilizers market products (total N and P per year) by country, basin-wide  Compilation of a report on the use of fertilizer products by country, basin-wide, analyzing misuse in their application, their environmental impacts and potential for reduction	Inventory  Summary report on the use of agrochemicals (fertilizers) in DRB	Assure coordination with DANUBS and MONERIS Projects	July 02 - Aug 03
1.2-4: Identify main institutional, administrative and funding deficiencies (including complementary measures) to reduce pollutants	Collect information on institutional, administrative and funding deficiencies in the field of land use and agricultural practices in DRB countries	Study on institutional, administrative and funding deficiencies in the field of land use and agricultural practices in DRB countries	Assure coordination with MONERIS project, DaNUbs	July 02 - Aug 03

<b>Activities</b>	<b>Implementation Steps</b>	<b>Specific Outputs</b>	<b>ICPDR Expert Groups Input</b>	<b>Time Frame</b>
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	Analyze existing situation for each DRB country	Report on existing situation and draft concepts for policy development and implementation of BAP in the DRB countries	Coordinate with DANUBS, MONERIS	July 02 - Aug 03
	Compile national contributions and prepare concepts for application of BAP policies by taking into consideration the countries' specific hydrological, climatic and ecological situation	Concepts for application of BAP policies by taking into consideration the countries' specific hydrological, climatic and ecological situation		
1.2-6: Discuss the new concepts with governments, farming communities and NGOs in the basin and disseminate results among them	Send concept paper to Contracting Parties (CPs) and other interested parties (experts, NGOs, farmers associations)	Concept paper		
	Organize a workshop on development of concepts for the introduction of Best Agricultural Practices in the Danube Countries	Workshop and workshop report The concept discussed and amended		
	Draft the final concept	Draft final concept		

## **Output 1.3 Development of pilot projects on reduction of nutrients and other harmful substances from agricultural point and non-point sources**

### **Tasks**

This part of the DRP will assist the DRB countries (especially in the lower Danube basin) with the development of low-input agriculture and with pilot programs for agricultural pollution reduction, in line with existing and emerging (driven by EU accession process) national environmental legislation.

Specific needs to improve agricultural practices and relevant sites for demonstration activities on manure handling should be identified in practical concepts for each DRB country. Focus countries for pilot projects (training and institutional development of best agricultural practice) should be Ukraine, Moldova, Romania, Bulgaria, Yugoslavia and Bosnia & Herzegovina.

The implementation of the pilot projects (non-structural) will be carried out in Phase 2.

### **Implementation Arrangements**

The project activities should be carried out under the responsibility of an international consultant / subcontractor with particular expertise in the promotion of practices for sustainable agriculture, and in the agricultural technologies applicable in Central and Eastern European countries (specifically manure treatment). The consultant should be familiar with the concept of “best agriculture practice” and relevant EU legislation, in particular with the Nitrate Directive.

The country-specific implementation arrangements have to be carried out by national consultants / experts according to the provisions specified by the international consultant/subcontractor.

The project activities should be carried out in close cooperation with the ICPDR expert groups, in particular EMIS EG and the relevant local agricultural institutions. Certain coordination will be needed with the implementation of project component dealing with wetland rehabilitation (1.4).

The Component 1.3. should be executed by the same consultant team as component 1.2.

## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
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	Carry out the analysis, taking into account the results of the UNDP/GEF DPRP and of the EU/PHARE Project EU/301/91	Report on existing programmes and pilot projects and proposals for the development of Pilot Projects.	Coordinate with DANUBS	Jul 02 – Dec 03
	Identify needs for new pilot activities in BAP, especially in UA, MOL, RO, BG, YU and B-H	List of identified new pilot projects (mainly for 6 DRB countries) with assessment of nutrient reduction capacities		
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	Develop the concept and criteria for introduction of appropriate agricultural practices and best manure handling taking into account relevant EU legislation	Practical concept and criteria for the introduction of BAP and best manure handling taking into account relevant EU legislation	Joint Action Programme 3.4 Reduction of Pollution from Non-Point Sources	Dec 02 – Mar 03
	Develop guidelines for best manure handling Translation of guidelines into national languages	Guidelines for manure handling, Translation of guidelines into national languages		
	Assess possibilities for national and regional institutional support in practically applying BAP in the Danube River Basin countries- identify national structures for practical application of guidelines	Priority list of identified institutional support requirements in DRB - national structures for practical application of guidelines identified		
1.3-3 Prepare and implement for the central and lower DRB countries typical pilot projects (especially in UA, MD, RO, BG, YU and B-H) to train and support farmers in the application of best agricultural practice	Based on 1.3-1 and 1.3-2 organize the setting up of mechanisms for national structures (extension service) Set criteria for the selection of pilot projects	Mechanisms for national structures (extension service) Proposal for the implementation and assessment of pilot projects (criteria and selection procedure) Pilot projects proposal	Results from Joint Action Programme 3.4 Reduction of Pollution from Non-Point Sources	Mar 03 – Jul 03
	Design the selection procedure involving stakeholders on local level			
	Propose pilot projects			
1.3-4 Organize a series of demonstration workshops to disseminate the results of the pilot projects	Organize a consultation workshop on the implementation of Best Agricultural Practices – demonstration of results of pilot projects (Czech Republic and Bulgaria)	Consultation workshop and workshop documentation		

## **Output 1.4 Policy development for wetlands rehabilitation under the aspect of appropriate land use**

### **Tasks**

The primary focus of this output is to assist DRB countries to prepare new land use and wetlands rehabilitation/protection policies and legislation in line with the existing and emerging (driven by EU accession process) environmental legislation as well as GEF IW strategies. This project output shall address common inappropriate land uses and subsequent impacts on ecologically sensitive areas and wetlands including the effects of transboundary pollution with particular attention to nutrients and toxic substances related to: municipalities, agricultural activities, hydraulic structures etc., . Standardized integrated land use concepts shall be developed for the protection and/or rehabilitation of selected sensitive nature protection /wetland areas.

Such new approaches will be demonstrated in the frame of pilot activities which should also serve to stimulate activities that will expand the use of sustainable land use practices in critical nature protection and wetland areas of the DRB. The inventory of nature protection areas in the form of a map, will, besides meeting a core EU WFD requirement, provide the basis for prioritizing actions to protect and rehabilitate priority nature protection areas and wetland habitats in the DRB.

In Phase 2 of the Project, these concepts shall be implemented and required policy, legal and institutional reforms shall be applied for integrated land use as models for the DRB.

### **Implementation Arrangements**

The relevant project activities will be carried out under the responsibility of an international consultant with particular expertise in international environment policy and legislation, as well as the protection and/or rehabilitation of sensitive nature protection areas and riverine wetlands. Specific knowledge of nature protection areas and wetland sites in the DRB is required as well as strong knowledge of ongoing activities. Given this, the DRP project document indicates WWF as the consultant/expert for these activities.

Given the close linkages between Project Outputs 1.4 and 4.3, they will be carried out by the same expert team. The expert team will also be required to assure close cooperation and compatibility with the results from the GIS related activities of the project (Activities 1.1.1 and 1.1.5.) as well as to be mindful of other elements of the River Basin Management part of the DRP (all of output 1.1). The country-specific activities and associated national implementation arrangements, have to be organized and carried out by national consultants / experts according to the provisions specified by the international consultant.

The project activities must be undertaken in close cooperation with the relevant ICPDR expert groups (RBM, MLIM, ECO, GIS SEG), the Ramsar Convention Secretariat, DEF (where appropriate) and national experts from the chosen areas.



## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
1.4-1: Define methodology for integrated land use assessment and establish inventory of protected areas	Define methodology of integrated land use assessment	Methodology of integrated land use assessment	Agreement in ECO/EG	July-Oct. 02
	Establish inventory of protected areas (WFD Annex IV 1.(V)) Collect and compile data; develop overview map on protected areas, based on national contributions	Protected areas inventory including overview map on protected areas	1. Definition of criteria for data on protected areas (habitats and species) 2. ECO/EG encourages contracting parties to provide needed national information	July-Oct. 02 (draft) Jun 03 (final)
	Select representative wetland areas within DRB sub-basins for development of pilot projects (see 1.4-2)	Wetland areas selected within DRB sub-basins for development of pilot projects	Definition of representivity with ECO/EG in consultation with MLIM/EG and RBM/EG Selection of representative areas	Oct-Nov 02
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)	Collect current land use data and future plans for development in selected wetland areas Synthesize and assess land use data and plans for future development from selected areas	Assessment of land use in selected areas (incl. pressures and impacts)		Dec 02 – Sept 03
	Organize workshops with local stakeholders for each selected area on development of concepts and methodologies for land use and wetland management	Workshops and workshop reports describing lessons learned	Participation of national representative of ECO/EG in local workshop	Feb – Apr 03
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)	Develop alternative concept and strategy for each selected area, including policy recommendations with reference to Ramsar Convention and WFD, based on assessment of selected areas in 1.4-2	Concepts for appropriate land use in the selected areas, including policy recommendations	Comments on draft concepts	Dec 02 – Sep 03
1.4-5: Disseminate project results in the Danube river basin	Prepare and produce material for presentation of integrated land use in wetland areas	Info material on integrated land use in wetland areas	Comments on draft material	
	Organize workshop with policy makers (relevant ministries and institutions) from DRB countries on concepts and approach for ecological, sustainable land use and wetland management in line with EU WFD	Workshop and workshop resolutions	Comments on workshop programme	

## **Output 1.5 Industrial reform and development of policies and legislation for the application of BAT (best available techniques, including cleaner technologies) towards reduction of nutrients (N and P) and dangerous substances**

### **Tasks**

This project output will assist the DRB countries in the development of new industrial nutrient/toxics pollution control policies and legislation in line with the existing and emerging (driven by EU accession process) national legislation.

Taking into account the expected revitalization of industries, it is necessary to focus on industrial policies and on a review of legislation in order to ensure that environmental considerations are adequately taken into account and that mechanisms for compliance are put in place; introducing the concept of Integrated Prevention and Pollution Control.

The project should also address the problem of industrial “hot spots” in relation to Significant Impact Areas (SIA) as identified in the Transboundary Analysis, to determine transboundary nutrients and toxics pollution from particular industries and identify possible solutions (BAT - best available techniques including cleaner technologies, treatment process, etc.) to reduce the emissions of toxic substances and nutrients in particular.

While Phase 1 of the Project focuses on the identification of gaps and opportunities for reforms, Phase 2 will develop pilot applications of BAT concepts in selected countries.

### **Implementation Arrangements**

The project activities should be carried out by an international consultant/subcontractor with particular expertise in EU water and industrial pollution sectors legislation. The consultants should be familiar with the concept of BAT, UNIDO guidelines for cleaner production and especially with EU IPPC Directive.

This project component should be carried out in close cooperation with EMIS EG and also should cooperate with the UNIDO-TEST MSP to ensure that interventions at the policy/legislative and at the technical (demonstration) levels are complementary.

The country-specific data and information have to be provided by national consultants / experts according to the guidelines provided by the international consultant/subcontractor.

### **Work Plan**

<b>Activities</b>	<b>Implementation Steps</b>	<b>Specific Outputs</b>	<b>ICPDR Expert Groups Input</b>	<b>Time Frame</b>
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	Update the basin-wide inventory on industrial discharges taking into account significant impact on water resources and water quality and assure data coherency	Updated basin-wide inventory on industrial discharges taking into account significant impact on water resources and water quality and assured data coherency	1. Emission inventory 2000 2. Result of PHARE project no VI ZZ 77/97/25	Aug 02 –Apr 03

<b>Activities</b>	<b>Implementation Steps</b>	<b>Specific Outputs</b>	<b>ICPDR Expert Groups Input</b>	<b>Time Frame</b>
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)	Identify relevant plants considering up-dated basin-wide inventory (1.5-1)	List of industrial hot spots having a significant impact on water resources and water quality	1. EMIS Inventory 2. MLIM TNMN / Joint Danube Survey	Aug 02 - Apr 03
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	Identify outdated techniques in relation to BAT reference notes (BREF notes) in the framework of EU IPPC Directive (focus on fertilizer, pulp and paper and chemical industries - not more than 10 enterprises)	Report on outdated techniques in about 10 enterprises and on the potential for reduction of pollution from fertilizer, pulp and paper and chemical industries in DRB	ICPDR recommendations	Aug 02 - Apr 03
1.5-4: Review policies and relevant existing and future legislation for industrial pollution control and identification enforcement mechanisms at country level	Review present and emerging policies and legislation and associated enforcement mechanisms in each DRB country, taking into account implementation plans for IPPC Directive in EU candidate countries	Report on legislative and policy measures and enforcement mechanisms	ICPDR recommendations	Aug 02 - Apr 03
1.5-5: Compare and identify gaps between relevant EU and national legislation	Compare and identify gaps between EU and national legislation	DRB Report on gaps between EU and national legislation		Aug 02 - Apr 03
	Develop proposals on how to close the gaps	Guidelines for improvement		
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)	Identify and evaluate complementary measures Carry out study on policy and legal measures for introduction of BAT	DRB Report on relevant complementary measures for the introduction of BAT	ICPDR recommendations	Aug 02 - Apr 03
1.5-8: Organize workshops with participants from relevant ministries, industrial managers, banking institutions, introducing information on best available techniques, financial support, etc.	Organize BAT network (experts exchange between local authorities, industries, regulators and NGOs)	BAT network organized Site visits to industrial plants using BAT	ICPDR recommendations	
	Organize kick-of meeting for BAT network on introduction of BAT for industry and mining – reduction of nutrients and dangerous substances	Kick-of meeting for BAT network		
	Prepare programmes for future workshops, identify target groups, prepare training materials on harmonization of EU and national policies and legislation on BAT (Implementation of workshops in Phase II)	Workshops, training programmes, training materials on harmonization of EU and national policies and legislation on BAT prepared Target groups identified		

## **Output 1.6 Policy reform and legislation measures for the development of cost-covering concepts for water and wastewater tariffs, focusing on nutrient reduction and control of dangerous substances**

### **Tasks**

This part of the project will assist the DRB countries in the development of new tariff systems to facilitate cost-covering operations of water and waste water services (including WWTPs with third stage for nutrient reduction) and to encourage respective investment decisions.

Based on the results of the study on water and waste water tariffs, which was finished in 2001, policy and legislative measures shall be developed for interested DRB countries to assure the introduction of economically and socially acceptable tariffs. This project component shall help to improve the investment possibilities for reduction of nutrients and toxic substances.

The development and implementation of new policy and legislative measures in the EU accession countries shall take into account the implementation plans for the Drinking Water and for the Urban Wastewater Directives and the policies and strategies that have been developed to reach the full compliance with EU legislation.

The implementation of new policy and legislative measures can make a substantial contribution towards increasing internal funds and releasing public budgets and can thus facilitate the provision of baseline contributions for new investment projects in transboundary nutrient reduction and pollution control.

Phase 1 of the Project will focus on developing country-specific concepts for tariff reforms while the Phase 2 will set the basis for implementation with national stakeholders.

### **Implementation Arrangements**

The project activities should be carried out under the responsibility of an international consultant(s) with expertise in environmental/natural resources economics and in particular in water sector funding policy and water tariffs in Central and Eastern European countries.

The country specific data and information have to be provided by national consultants / experts according to the guidelines provided by the international consultant(s).

The Components 1.6 and 1.7 should be executed by the same consultants. Coordination will be also needed with the implementation of project activity dealing with EU guidelines for economic analysis (1.1.3).

## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
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.	Analyze national water tariff policies	Country-specific analysis and assessment reports	None	Jul 02 - Feb 02
	Analyze relevant legal and regulatory framework and identify significant deficiencies			
	Analyze relevant institutional framework			
	Regarding water supply: analyze and assess at national level all tariff-related data: e.g. structure and level of tariffs, status of metering, level of illegal and unaccounted-for consumption, level of collection rate, etc.;	Country-specific analysis and assessment reports on actual tariff setting, taking into account implementation plans for Drinking Water and Urban Wastewater Directives in EU candidate countries	None	
	Regarding wastewater services: analyze and assess at national level all tariff related data: e.g. structure and level of tariffs, status of metering, level of collection rate, type of wastewater collection and treatment (centralized and decentralized public collection system, septic tanks, industrial collection system and direct industrial discharges)			
	Study “most effective practices” in tariff setting	Study report on “most effective practices” in tariff setting	None	
	Analyse differences between actual national practices and “most effective practices”	Comparative analysis report	None	
Analyze framework conditions for water sector investments a) Funding mechanisms b) Constraints for public and private investment	Country-specific analysis and assessment reports	None		
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	Develop potentials, requirements and principles for tariff reforms	Country-specific potentials, requirements and principles for tariff reforms, based on the findings of 1.6-1, in line with the EU WFD	None	Jan 03 - Sept 03
	Develop country-specific recommendations for tariff reforms	Country-specific recommendations for tariff reforms, based on the findings of 1.6-1, in line with the EU WFD	None	
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	Organize basin-wide workshop on economic mechanisms for introduction of socially acceptable water and wastewater tariffs and introduction of appropriate water pollution charges, fines and Incentives”	Basin-wide workshop and workshop report		

## **Output 1.7 Implementation of effective systems of water pollution charges, fines and incentives, focusing on nutrients and dangerous substances**

### **Tasks**

This output will provide assistance to interested DRB countries to develop an effective system of charges, fines and incentives to promote rational utilization of water resources and to prevent or reduce effects of environmental pollution, specifically nutrients and certain toxics. Within the broad framework of charges, fines and incentives particular attention should be given on discharges of nutrients and toxic pollutants with significant transboundary effects.

The development and implementation of new effective system of charges, fines and incentives in the EU accession countries shall take into account the implementation plans for all water quality protection Directives and the policies and strategies that have been developed to reach the full compliance with EU legislation.

Phase 1 of the Project will produce a DRB-wide assessment of presently existing tools and institutional mechanisms, while Phase 2 will prepare and suggest guidelines for the introduction of most appropriate charges, fines and incentives.

### **Implementation Arrangements**

The project activities should be carried out under the responsibility of an international consultant(s) with expertise in environmental/natural resources economics and in particular in water sector funding policy, use of various economic tools and EU legislative Compliance Cost concept in Central and Eastern European countries.

The country-specific data and information have to be provided by national consultants / experts according to the guidelines provided by the international consultant(s).

The Components 1.6 and 1.7 should be executed by the same consulting team. Coordination will be also needed with the implementation of project activity dealing with EU guidelines for economic analysis (1.1.3) and with pollution trading (4.4).

## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
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)	Analyze the present legal and regulatory systems of water pollution charges, fines and incentives in the DRB countries at country level, taking into account implementation plans for Drinking Water and Urban Wastewater Directives in EU candidates countries	Country-specific analysis and assessment reports	RBM/ EDG	Jul 02–Dec 02
	Compile an overview of the national systems in a standardized format and identify deficiencies	Comparative analysis of national systems		
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	Develop an adequate set of tools for DRB countries	Adequate country-specific set of tools	None	Jan 03 – May 03
	Describe and analyze barriers to introduction and effective use of the developed tools	Reports on barriers to introduction and effective use of the developed tools	None	
	Analyze and assess institutional capabilities and required arrangements	Reports on institutional capabilities and required arrangements at country level	None	
	Assess economic viability of proposed tools	Reports on economic viability and results of the social acceptance survey	None	
	Survey and assess social acceptance			
1.7-3: Develop appropriate concepts for the introduction of balanced and effective systems of water pollution charges, fines and incentives including enforcement mechanisms	Develop recommendations for the introduction of water-related charges, fines and incentives	Reports on entire mechanisms including recommendations for the introduction of water-related charges, fines and incentives	RBM/EDG	May 03 - Oct 03
	Develop general proposals for enforcement mechanisms			
1.7-5: Organize workshops on the application of appropriate water pollution charges, fines and incentives, with participants from relevant ministries, municipalities and the private sector	Organize basin-wide workshop on analysis of current practices and policies and concept for introduction of appropriate water pollution charges, fines and incentives	Basin-wide workshop (organized together with 1.6-4) and workshop report		

## Output 1.8 Recommendations for the reduction of phosphorus in detergents

### Tasks

The main objective of this part of the project is to assess the possibility for the introduction of acceptable standards in the particular DRB countries and to develop proposals for the required legislative reforms and measures as well as appropriate enforcement and/or voluntary agreement schemes.

The country-specific recommendations and implementation schedules should be mostly based on the experiences from Western European countries and should take into account the institutional and especially the economic capability of the particular DRB countries.

Phase 1 of the Project will assess the country-specific situation and discuss measures to overcome reduction barriers, while Phase 2 will periodically monitor and check the implementation of recommendations.

### Implementation Arrangements

The project activities should be supported by the EMIS EG and carried out by an international consultant(s) with particular expertise in nutrient management and phosphorus phase out / recycling programs.

The country-specific data and information have to be provided by national consultants / experts according to the provisions provided by the international consultant(s).

### Work Plan

Activity	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
1.8-1: Review the existing legislation, policies and voluntary commitments	Prepare an inventory of legislation and policies in the particular DRB countries concerning the present status of P-content in detergents	Report on the existing legislation, policies and voluntary agreements	Results from EMIS Zagreb workshop (Oct. 2001) on phosphate-free detergents	Sept 02 - Sept 03
	Carry out a review and comparative analysis on a country basis regarding compliance with relevant EU regulations and GPA, DRB Convention and Black Sea Convention			
1.8-2: Compile and evaluate the data on phosphorus containing detergents delivered by Detergent Industry	Compile and evaluate data on phosphorus-containing detergents produced by detergent industry	Report summarizing and evaluating data received from detergents industry	Analyze data and provide comments	Sept 02 - Sept 03
	Assess quantities of production and consumption, respectively export, import of phosphate-based detergents in comparison with more environment-friendly forms and prepare a market outlook for different types of detergent (P-based and P-free detergents)			
1.8-3: Develop proposals for accomplishing a voluntary agreement between ICPDR and the Detergent Industry	Develop proposals for accomplishing a voluntary agreement between ICPDR and the Detergent Industry	Proposals for accomplishing a voluntary agreement between the ICPDR and detergent industry		Sept 02 - Sept 03
1.8-4: Organize a basin-wide conference on introduction of phosphate-free detergents	Prepare a basin-wide conference on: the implementation of voluntary agreement for phosphate-free detergents (to be implemented in Phase II)	Basin-wide conf. for signing & implem. of voluntary agreement for P-free detergents prepared	Approval of agenda by EMIS	



## **Objective 2: Capacity building and reinforcement of transboundary cooperation for the improvement of water quality and environmental standards in the DRB**

**Output :** Institutional and organizational mechanisms for transboundary cooperation in pollution control and nutrient reduction are put in place and concepts for improved water quality monitoring, emission control, emergency warning and accidental prevention are developed.

**Approach :** Conceptualizing and putting in place “Inter-ministerial Coordinating Mechanisms” at the national level, involving all technical, administrative and financial departments to assure adequate coordination and implementation of policies, legislation and projects for nutrient reduction and pollution control. Supporting the ICPDR and its Expert Groups to improve their institutional, administrative and technical capacities to assure basin wide harmonization of water quality regulatory standards including specific provisions for nutrient reduction; to further develop specific regional information system and mechanisms for transboundary pollution monitoring and evaluation considering EU regulations (WFD) and GEF IW M&E indicators (process, stress reduction, environmental status).

Organizing workshops and training courses on institutional, administrative, technological and economic issues for individuals and participants from ministries, public authorities and private institutions with responsibilities related to the use, control and impacts of nutrients in the DRB, respectively their effects on the Black Sea.

## Output 2.1 Setting up of Inter-Ministerial Coordinating Mechanisms for the development, implementation and follow up of national policies, legislation and projects for nutrient reduction and pollution control

### Tasks

In order to ensure efficient implementation of policies and related Investment Programme defined under the DRPC, it is recommended that coordinating capacities at the national level should be reinforced or created. Inter-Ministerial Co-ordinating Mechanisms will be set up to assure adequate coordination and implementation of policies, legislation and projects for nutrient reduction and pollution control.

### Implementation Arrangements

The project activities should be carried out by an international consultant(s), co-operating at the national level with relevant governmental bodies to prepare guidelines and TORs for the setting up and functioning of national Inter-Ministerial Co-ordinating Mechanisms.

### Work Plan

Activities	Implementation Steps	Specific Output	ICPDR Expert Groups Input	Time frame
2.1-1 Evaluate existing national structures for coordination 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”)	<ol style="list-style-type: none"> <li>1. Analysis of existing inter-ministerial structures and mechanisms</li> <li>2. Analysis of activities, competence and capacities of existing structures</li> </ol>	Analysis report of existing inter-ministerial structures and mechanisms and of activities, competence and capacities of existing structures		June 02 - July 02
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	<ol style="list-style-type: none"> <li>1. Establishing close cooperation with existing structures</li> <li>2. Based on analysis, prepare a proposal for improving the structures</li> <li>3. Develop concept paper for the setting up of coordinating mechanisms</li> </ol>	<p>Proposal for new structures or for improvement of existing structures</p> <p>Concept paper for the setting up of coordinating mechanisms</p>		June 02 - Oct 02
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	<ol style="list-style-type: none"> <li>1. Assist in the setting up of relevant mechanisms for cooperation with national governments</li> <li>2. Provide initial support for coordinating mechanisms to facilitate project implementation</li> <li>3. Enhance effective coordination with activities related to WFD and to project development in the frame of the DABLAS Task Force</li> </ol>	Operational Inter-ministerial coordination mechanisms		June 02 - July 03

## **Output 2.2 Development of operational tools for monitoring, laboratory and information management with particular attention to nutrients and toxic substances**

### **Tasks**

The subject of this project output is professional and financial support aimed at reinforcing the activities related to emission control (EMIS/EG) and monitoring of water quality, laboratory and information management (MLIM/EG), particularly aiming at:

- development of water quality objectives for nutrients and standards for toxic substances
- development of application for pressure /stress (emissions) and impact (water quality/change in ecosystems) analysis, based on MLIM and EMIS databases (TNMN, JDS, ARS, EMIS Inventory)
- improvement of the scope of the Trans-National Monitoring Network and Emission Inventory, including harmonization of their databases, considering EU and DRPC Priority Substances

The models and applications supported mostly with data from the TNMN and Emission Inventory are essential tools for a profound assessment of environmental stress and impact, in particular transboundary nutrient and toxic pollutant flows as well as an assessment of the expected effects of nutrient and other pollution reduction measures. The present nutrient reduction plans can be adjusted and the implementation of policy measures can be focused on specific areas or sectors.

To assure the coherence and viability of data collection in all Danube countries, it would be necessary to provide training and additional laboratory and monitoring tools, including development of SOPs and preparation of reference materials. Particular attention should be given to those countries that still need to be brought to the same operational level (Ukraine, Moldova) and are not yet integrated in the MLIM and EMIS systems (Bosnia-Herzegovina, FR Yugoslavia).

Phase 1 of the Project will prepare the upgrading of existing operational tools, while Phase 2 will secure their effective application and the DRB-wide data availability.

### **Implementation Arrangements**

The activities of this project output will be carried out by international consultants specialised in water quality issues. To ensure cooperation and coordination with the ICPDR activities, consultation and working meetings of the Expert Groups for particular research work (development of nutrient data base, etc.) should be organized.

The country-specific data and information have to be provided by national consultants / experts according to the guidelines provided by the international consultant/subcontractor.

The activities under this project output 2.2 will have to be coordinated with project output 2.4: Support for reinforcement of the ICPDR Information System (DANUBIS), particularly with GIS integration (linked also with activity 1.15 and 1.1-3) and output 4.1: Development of indicators for project monitoring and impact evaluation.

## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
2.2-1: Harmonize water quality standards and objectives, and quality assurance for nutrients and toxic substances	Nutrients quality objectives will be defined based on Outputs of Activity 1.1-6	Proposal for Water quality objectives for nutrients  Proposal for Water quality standards for toxic substances from ICPDR List – JAP point 3.8 – Water Quality Standards	Review proposal *(MLIM paper: recommendation for typology MLIM classification system	May-Oct 03
	Development of Proposal for water quality standards for toxic substances (link with 2.2-3)		Review the proposed standards for toxic substances	
2.2-2: Further development of databases for EMIS / MLIM in order to assess environmental stress and impacts	Develop an operational link (connection) between MONERIS (non-point sources) and DANUBIS	DANUBIS – MONERIS link is operational		July 02- Aug 03
	Develop a proposal for an upgrade and harmonization of TNMN and Emission Inventory	Proposal for an upgraded TNMN and Emission Inventory	Final approval	
	Establish a computer-based application for stress and impact analysis	1. GIS-based programme available 2. Access assured		
2.2-3: Optimize TNMN and identify sources and amounts of transboundary pollution for substances on the list of EU and DRPC priority substances	Preparation of inventory (including location and characterizations) for point and non-point sources of EU WFD Priority Substances (Harmonize with EMIS Inventory database)	Inventory (including location and characterizations) for point and non-point sources of EU WFD Priority Substances	Review of and comments on the draft inventory (MLIM) EMIS  EMIS to prepare an inventory of point and non-point sources of EU WFD Priority Substances in the DRB. Results of JDS to be taken into account	Sept 02 – Aug 03
	Proposal for upgrade of TNMN(determinands list) by including the EU and DRPC substances from priority lists	Upgrade of TNMN by including the EU and DRPC substances from priority lists	Existing conclusions and recommendations from previous projects done by MLIM ESGs and EG	
	Develop and harmonize SOPs for TNMN determinands which do not have these – for example the determinands from the List of Priority Substances	SOPs for TNMN determinands developed and harmonized	Provide guidance to consultant	
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	Proposal for water quality standards and objectives developed in accordance with EU WFD requirements	Proposal for finalization of water quality standards and objectives developed in accordance with EU WFD requirements	MLIM and EMIS EG expertise preparation and finalization of outputs	
	TNMN development proposal for including point and non-point sources contribution to in-stream waters with special regard to Priority Substances	Recommendations for finalizations of new TNMN structure (including point and non-point sources contribution to in-stream waters with special regard to Priority Substances)		

## **Output 2.3 Improvement of procedures and tools for accident and emergency response with particular attention to transboundary emergency situations**

### **Tasks**

The subject of this project output is to support development activities for accident emergency warning and prevention of accidental pollution. The experience from the last accidental pollution events indicates that the originally established AEWS needs substantial improvement before it can become a satisfactory tool for adequate management of transboundary contamination from catastrophic events.

The activities will focus on:

- reinforcement of the AEWS, in particular preparation of geographical extension to Bosnia-Herzegovina and Yugoslavia and the development of a new sustainable communication systems via the Internet (DANUBIS)
- A review of the existing Accident Risk Spot Inventory (possibly including risk assessment of priority sites) and the design of preventive measures
- the development of a project concept for the maintenance and calibration of the Danube Basin Alarm Model (DBAM).

During Phase 1 of the Project, the operational bases of the alarm system will be upgraded and preventive policy measures recommended. During Phase 2, the alarm system will be made fully operational and extended in the DRB, in particular in Bosnia-Herzegovina and Yugoslavia.

### **Implementation Arrangements**

The project activities should be carried out by international consultants in cooperation with the AEPWS/EG. In addition, the existing sub basin commissions responsible for accidental emergency warning and prevention will also contribute to the project implementation.

Country-specific data and information have to be provided by national consultants / experts according to the provisions supplied by the AEPWS/EG, respectively the international consultant / subcontractor.

The activities under this project output 2.3 will have to be coordinated with project output 2.4: Support for reinforcement of the ICPDR Information System (DANUBIS), particularly with activity 2.4-1: Further develop ICPDR Information System - Design and implement communication solution for real time emergency cases (including software coding and testing) .

## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
2.3-1: Reinforce operational conditions in the national alert centers (PIACs) and geographical extension of the AEPWS in Bosnia-Herzegovina and FR Yugoslavia	Review information content and flow at local and international level Develop an upgraded international manual	Information content and flow at local and international level - new manual (AEWS – Danube)	General guidelines development Evaluation / analysis of the consultant outputs - recommendations	Sept 02 – June 03
	Evaluate needs for technical and financial (investments) support and prepare implementation schedules for the extension of AEWS at the level of FRY and B-H PIACs	Evaluation of needs and implementation schedule prepared		
	Develop new sustainable communication solution for information exchange in emergency cases PIACs / ICPDR	Standard forms Communication solution for information exchange in emergency cases PIACs / ICPDR (using ICPDR web site - appropriate software)	Standard forms proposal Evaluation / analysis of consultant's outputs – recommendations	
	<i>Create operational AEWS units in B-H and FRY. Upgrade AEWS PIACs( moved from 2.4-2)</i>	<i>Set up systems for B&amp;H/FRY AEWS units in B-H/FRY operational In phase I if budget available (extension of PIACs is planned in phase II)</i>		
2.3.-2: Complete and upgrade the available inventory detailed analysis in respect to ARS, distribution on sub-basin and industry branches	Complete and upgrade the available inventory detailed analysis of selected ARS distribution on sub-basins and on industry branches	Inventory ranking system of relevant ARS resulting from industrial activities in DRB	Ranking methodology position and concept paper	Dec 02 – July 03
2.3-3: Design preventive measures, adjust national legislation and improve compliance with safety standards	Develop concept and basic guidelines for accident and pollution prevention (first draft)	Basic guidelines and recommendations for accident and pollution prevention (first draft)	Design preventive measures by providing the appropriate check list methodology	Dec 02 – July 03
	Carry out case study	Draft concept paper for pilot projects	Recommendations	
	Preparation of final draft	Final draft	Scenarios guidelines / and development	
2.3-4: Maintenance and calibration of the Danube Basin Alarm Model (DBAM), to predict the propagation of the accidental pollution and evaluate temporal, spatial and magnitude characteristics in the Danube river system and to the Black Sea	Development of project concept	Project concept and outline available	Analyze and approve the inputs from consultants; recommendations	Dec 02 – July 03
	Manual development and implementation	Manual development and implementation		
	Identify suitable pilot areas Organize and prepare the workshop / training document Project briefs and ToRs for DBAM calibration in the selected pilot areas - pre-feasibility study for data collection	Project briefs and ToRs for DBAM calibration in the selected pilot areas - pre-feasibility study for data collection		
2.3-5: Organize workshops to reinforce cooperation in accident and emergency / warning and development of preventive measures	Reinforcement of cooperation in accident and emergency warning and development of preventive measures	Warning system operational and guidelines for preventive measures in place	AEPWS EG: Analyze and evaluate / recommend inputs from consultants	

## **Output 2.4 Support for reinforcement of the ICPDR Information System (DANUBIS)**

### **Tasks**

Further professional/technical and financial support is needed for the build-up and extension of DANUBIS to assure adequate administration of the information and reporting obligations under the DRPC. A new interactive web-site is to be adapted ensuring a smooth flow of textual and geographic information between the national level and the central unit at the ICPDR Secretariat. It will facilitate permanent monitoring and exchange of information on pollution control and nutrient reduction measures and to disseminate information to the public on policy and legal matters related to nutrient reduction: GEF nutrient reduction policies, relevant EU guidelines and directives, other information from international initiatives/conventions concerning land based sources of pollution, agricultural practices, fertilizer application, phosphate free detergents, etc.

There are four main areas of activities:

- hardware and software upgrade (at central and national level)
- software development (communication solution for AEWS, GIS implementation, etc.)
- content development (reporting guidelines, development strategy, etc...)
- training for users

During Phase 1 of the Project, the DANUBIS extension will be designed and basic components implemented, during Phase 2 the system will be fully operational and used by the ICPDR Expert Groups and other stakeholders.

### **Implementation Arrangements**

The project activities have to be carried out by international consultants/subcontractors in close cooperation with the ICPDR Secretariat. In addition, the ICPDR Contracting Parties and Expert Groups will contribute to the implementation of the project.

The country specific data and information have to be provided by national experts according to the provisions supplied by the international consultant / subcontractor as needed.

The Activities under this project output 2.4 will have to be coordinated with other project outputs/activities, which foresee utilization of DANUBIS, in particular:

- Output 1.1: River Basin Management (activity 1.1-5: RBM tools and data management - GIS)
- Output 2.2: Monitoring, Laboratory and Information Management (activity 2.2-2: Further development of databases – EMIS / TNMN / ARS, etc. and links with DaNUbs and MONERIS)
- Output 2.3: Accident emergency response (activity 2.3-1: Reinforcement of AEWS – communication solution through DANUBIS).
- Output 3.3: Public Awareness (3.3-1: Education-Communication-Information strategy)

The ICPDR Secretariat will assure the regular operation and maintenance of the system. The ICPDR will also provide the work space, computer equipment and access to DANUBIS in order to facilitate the implementation of the project output.

## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
2.4-1: Further develop ICPDR Information System and ensure that it is used by its expert groups and other operational bodies	Define needs for equipment (hardware and software) and capacity building in relation to JAP and project activities Connect all Danube Countries to DANUBIS, assure development and implementation of linkages between national and regional levels Ensure technical and financial support for DANUBIS extension (100.000 USD for equipment)	Needs assessment (foreseen activities, equipment; human capacities) Upgraded Info System at national and regional levels (h-w, s-w specification, purchase, installation)	HoDs and national ICPDR Expert Groups members will cooperate with international consultant to identify needs	May 02 – June 03
	Develop reporting guidelines (formats and procedures) in accordance with DRPC and Joint Action Programme 3.15 Implementation of JAP for the Danube River Basin	Reporting guidelines (formats and procedures) in accordance with DRPC and JAP available	Identify reporting needs	May 02 – Dec. 02
	Design and implement communication solution for real time emergency cases (including software coding and testing)	Reliable, cost-effective emergency information exchange - communication solution / Update AEWIS units	Guidance, standard procedures, message routings	Sept 02 – Nov 03
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 program, respectively the work of the ICPDR and the GEF Project (communication, monitoring, public information, etc.)	Design integration of GIS System into DANUBIS (in relation to 1.1-1 and 1.1-5)	GIS and IMS integrated into DANUBIS	1. GIS/ESG will give standards in overview level 2. Other EGs will identify their needs in using GIS facilities for the related activities MLIM, EMIS, AEPWS GIS/ESG will provide standards	June 02 – Oct. 03
	Implement GIS System and map server	Interface for user developed to make use of the data		
	Develop user-interface	Digital geographic data integrated and available in map server		
	Integrate the data in GIS System and map server	Operational GIS System for data integration and operating map server		
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	Organize at the national level training for EG members on efficient use of the Info System (On-the-job training)	On-the-job trainings at national level for EG members to improved knowledge in the use of the tools made available by the System	Participation at national level	
	Conceptualize training programme on the use of extended Information System (incl. GIS) for DANUBIS users to improve data management and updating databases (implementation of programme in Phase II)	Concept for the 2 <sup>nd</sup> phase of training covering all needs (persons involved, categories, etc.)		



## Output 2.5 Implementation of the Memorandum of Understanding between the ICPDR and the BSC relating to the discharge of nutrients and hazardous substances to the Black Sea

### Tasks

The objective is to assist the ICPDR in further implementing the Memorandum of Understanding (MoU), identifying appropriate modalities for the implementation and developing of a monitoring system for commonly agreed process, stress reduction and environmental status indicators for the Black Sea. During the Phase 1 of the Project, a joint working programme will be worked out and approved, which will be practically applied in Phase 2.

### Implementation Arrangements

The work will be carried out by the Joint Technical Working Group ICPDR - BSC. Financial support will be provided to organize working meeting of the Danube – Black Sea Joint Technical Working Group for the implementation of the MoU.

Coordination will be needed with the implementation of project component dealing with development of indicators (4.1).

### Work Plan

Activities	Implementation Steps	Specific Outputs	Expert Groups Input	Time frame
2.5-1 Develop joint work program for MOU implementation	Develop TOR of the Joint Working Group and a work program for effective implementation of the MOU; for this purpose the following steps are foreseen: <ul style="list-style-type: none"> <li>- convene first meeting of Joint Danube – Black Sea WG</li> <li>- members should be the same as for the first working group created in December 1997 in Constanca</li> <li>- the Executive Secretary / Director of both Commissions shall participate in this meeting</li> <li>- the results (work programme, TOR and composition of the working group) shall be submitted to both Commissions for approval</li> </ul>	TOR of the Joint Working Group and a work program for effective implementation of the MOU;	In its first meeting the Joint Danube-Black Sea Working Group shall revise existing or develop new TOR and draft a work programme to assure effective implementation of the MOU	May 02-Oct 03
2.5-2 Define and agree on status indicators to monitor nutrient transport from the Danube and the change of ecosystems in the Black Sea	Define and agree on status indicators to monitor nutrient and hazardous substances transport from the Danube and change of ecosystems in the Black Sea	Status indicators to monitor nutrient and hazardous substances transport from the Danube and change of ecosystem in the Black Sea defined and agreed upon		May 02-Oct 03
2.5-3 Define and establish reporting procedures	Define and establish reporting procedures	Reporting procedure defined and agreed upon		May 02-Oct 03
2.5-4 Re-establish and organize regular meetings of the Joint Danube-Black Sea WG to evaluate progress of nutrient reduction and recovery of the Black Sea ecosystems	Organize regular meetings of the Joint Working Group	Joint actions discussed and approved		May 02-Oct 03

## **Output 2.6 Training and consultation workshops for resource management and pollution control with attention to nutrient reduction and transboundary issues**

### **Tasks**

Numerous training workshops, consultation meeting, dissemination workshops, study tours etc. are called for in the DRP involving participants from government, local administrations, NGOs and other DRB stakeholders. These activities are essential for assuring the sustainability of appropriate resources management and pollution control as well as to assure the same level of understanding throughout the Danube River Basin.

This output addresses the need for a consistent approach to training, education activities and information dissemination is needed to guarantee that a maximum of results are achieved (related to the EIC Strategy in activity 3.3) in the most effective and efficient manner. During the Phase 1 of the Project, the various training programmes, dissemination and consultation workshops, study tours etc. will be determined and trainers trained, and a consistent approach for the organization of workshops and consultation meetings (target audiences, structure, products etc.) will be developed. These training programmes and workshop (methodologies) will be implemented and evaluated during Phase 2 of the project.

### **Implementation Arrangements**

The proposed training courses should be organized by an international consultant experienced in training and communication. His/her work include developing a structure/methodology for preparing workshops, consultation meetings being undertaken in the frame of the DRP.

The consultant will work in close cooperation with the ICPDR and relative Expert Groups. There is an important linkage with the public participation and communication strategy and other activities (output 3.3) as well as the specific training and public participation activities with the DEF (3.1) and the SGP (3.2.) Further cooperation will be necessary between the consultant and those consultants/experts responsible for preparing and organizing workshops as part of their respective activities.

Regional Workshops designed to reinforce transboundary cooperation should be attended by at least two or three participants from each DRB country. One essential task will be to prepare, prior to the workshops, adequate documents and case study materials for dissemination among the participants.

## Work Plan

Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
1) Assess training needs on national and sub-basin level and develop training programs. 2) Define target groups and related methodology of dissemination / consultation 3) Develop training packages for the following purposes: <ul style="list-style-type: none"> <li>• 2.6-1: Policy development and legal frame for transboundary cooperation in nutrient reduction and control of toxic substances</li> <li>• 2.6-2: Technical and legal issues of river basin planning and transboundary water resources management</li> <li>• 2.6-3: Technical and legal issues (land reclamation) in wetland restoration and management</li> <li>• 2.6-4: Innovative technologies for municipal and industrial wastewater treatment;</li> <li>• 2.6-5: Technical and legal issues in management and control of the use of fertilizers and manure</li> <li>• 2.6-6: Preparation of documents for nutrient reduction projects</li> <li>• 2.6-7: Training courses in NGO activities</li> </ul> (implementation of programme in Phase II)	<ul style="list-style-type: none"> <li>• Training concept</li> <li>• Needs assessment</li> <li>• Training packages</li> <li>• Technical inputs from all other consultants</li> </ul>	<ul style="list-style-type: none"> <li>• Curriculum development</li> <li>• Identification of target groups</li> <li>• Comments on need assessment</li> </ul>	Sept. 02 – June 03
Organize two training courses for trainers for 2.6-1 and 2.6-2	Methodological approach and knowledge of technical issues  Train -the-trainers courses	Identification of potential trainers	

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

**Output :** The DEF Secretariat is fully operational and supports national NGOs. Community based projects for nutrient reduction (Small Grants Programme) and awareness campaigns are prepared and information material is regularly published. A comprehensive Education, Information and Communication Strategy (EIC) is available to guide the preparation of necessary communication products and public awareness activities about DRP objectives, activities and results. Consequently public concern and response to ecological issues has increased and public participation and action is expanded at the local, national and regional levels..

**Approach :** Supporting NGOs in professional, institutional, administrative and funding issues to boost their capacities for active participation in transboundary pollution control with particular attention to nutrients and certain toxic substances. In this context, NGO activities and public awareness shall be reinforced through the setting up of a Small Grants Programme providing financial support for community based nutrient reduction projects. An overall EIC strategy will greatly enhance and expand communication and participation by identifying the appropriate approach to reach target audiences and achieve determined objectives. Concepts for special campaigns for awareness raising and information of the public shall be developed and cooperation with mass media shall be reinforced.

## **Output 3.1 Support for institutional development of NGOs and community involvement**

### **Tasks**

Support for the institutional development of DRB NGOs and enhanced public participation should come in the form of technical/professional assistance and financial support to the Danube Environmental Forum (DEF) and its members working on transboundary pollution issues and nutrient reduction.

Phase 1 of the DRP will focus on making the DEF network fully operational and for preparing activities to support nutrient reduction, ecosystem management etc. that will be completed in Phase 2 (public awareness campaigns, publications, training etc.).

### **Implementation Arrangements**

The project activities will be carried out directly with the DEF under the management of the DEF Secretariat and under the guidance of the DEF Spokespersons and Board. The DEF network including all participating members are beneficiaries of the project and will participate via the respective DEF national focal points at the national level and in the General Assembly (meets annually) at the regional level.

DEF network members should participate and support activities at the national level and provide country-specific data and information as needed.

These activities are closely linked with the DRP Small Grants Programme (SGP) (output 3.2) and the respective public awareness and participation activities (3.3) which should all be mutually reinforcing. DEF network members are eligible to participate in the SGP which should thereby serve to strengthen the capacities of the DEF network as a whole. The DEF network will also play a role in carrying out the public awareness and participation activities being planned (output 3.3.)

## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
3.1-1: Provide support to the DEF for operation, communication and information management	Establish office and select Secretariat staff	Strategy for the development of DEF network Well established, strengthened DEF (Secretariat + network)		March 02 - Oct. 03-
	Convene DEF board meeting and adopt strategy for the development of DEF network			
	Prepare work plan			
	Strengthen National Focal Points (NFPs) through DEF Secretariat activities			
	Strengthen member NGOs through NFP activities			
3.1-2: Organize consultation meetings and training workshops on nutrients and toxic substances issues	Identify training needs and target groups	Training needs and target groups identified	Identify specific training needs	Jan-June 03
	Develop training materials on issues related to nutrients reduction and toxic substances	Training materials developed	For the preparation of training materials	
	Organize training for NGO trainers on identification and assessment of sources of pollution accident risk (nutrients and toxic substances) and the development of actions for remediation & public awareness	Training for NGO trainers		
3.1-3: Publish special NGO publications in national languages on nutrients and toxic substances	Identify contents of publications	NGO publications	Assist and contribute with quality control content and publications	Mar-Nov 03
	Prepare materials for publications			
3.1-4: Organize training courses for the development of NGO activities and cooperation in national projects (nutrient reduction)	Identify training needs and target groups	Training needs and target groups identified	Inputs into training materials from DEF, REC, etc.	
	Develop training materials	Training materials developed		
	Organize training for trainers on development of NGO and community-based activities and cooperation with governmental entities in project implementation	Training for trainers		

## **Output 3.2 Applied awareness raising through community-based Small Grants Programme**

### **Tasks**

The objective of this project output is to facilitate public participation and action at the grassroots level thereby enabling NGOs to address key problems in the DRB related to pollution reduction, ecosystem management etc. Administrative, professional and financial support will be provided for the implementation of the DRP-Small Grants Programme. Phase 1 will focus primarily on the design and organization of the SGP, the call for tenders and then the identification of suitable projects. In Phase 2 of the Project, grants will be awarded and the programme will be implemented.

### **Implementation Arrangements**

This project component shall be implemented by the pre-selected consultant, the Regional Environmental Center (REC) in Hungary with technical and policy guidance from the ICPDR and its relevant structures, The REC will administer the SGP through its national offices, engaging local communities and NGOs to develop and submit relevant project proposals. The consultant will require sufficient technical expertise in nutrient reduction, ecosystem and wetland management and other key issues related to the WFD and GEF IW strategies for successful implementation of the SGP. The technical consultant should assure the complementarity and consistency with other technical outputs and pilot activities of the DRP. The REC will manage SGP implementation during the 2<sup>nd</sup> Phase of the DRP to assure maximum results in nutrient reduction, public participation and awareness raising.

Given the importance of the SGP and the need for adequate stakeholder participation, a "platform" of stakeholders will guide the design and set-up of the SGP. It is possible that the platform will also have a role in guiding implementation in the future. Members of the platform are expected to include the REC, DEF, WWF, ICPDR, and DRP project staff. In general it is foreseen that the ICPDR will assist in the technical implementation of the program and contribute to the evaluation process. It is also expected that the DEF will assist in the identification and preparation of appropriate projects while also contributing to the evaluation process.

The SGP is closely linked with the activities to strengthen the DEF (3.1) and with public participation and communication activities (3.3.) There is also a linkage with the prospective pilot activities that will be carried out in other components of the DRP.

## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
3.2-1: Identify NGO grants programme and projects for reduction of nutrients and toxic substances and mitigation of transboundary pollution	Establish a platform of participating organizations	A platform of participating organizations established	ECO RBM / ICPDR assist with platform	May - Dec 02
	A meeting of the platform to discuss programme design	Structure of the grant programme designed and discussed in a meeting		
	See 3.2.1 Phase 1 PMS (Prepare and design the structure of the grant programme; refer to the ICPDR Joint Action Program for identifying the grants topics; define the mechanisms of the process; define grant categories; define the procedures for grants implementation, reporting and evaluation; identify selection criteria for grants; define selection process for each of the granting programs)			
3.2-2: Prepare a 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	Organize a workshop for National REC offices and national DEF representatives (national NGOs) on: "Mechanisms for grants selection, identification of projects and preparation of project files and applications"	Workshop for National REC offices and national DEF representatives (national NGOs)	Possible inputs into evaluations (e.g. from ECO, RBM etc ...)	Oct 02 – Sept 03
	Prepare call for region-wide cooperation	Call for proposals prepared		
	Proposals for demonstration activities, campaigns, projects	Grants projects selected		
	Announce it widely through REC network			
	Evaluate the concept papers			
Evaluation of full tenders				
3.2-3: Prepare two granting programmes for the local and the regional (transboundary) level 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.	Calls for Nat/Grants prepared and announced	Calls for Grants prepared and announced	Input into evaluation process	Oct 02 – Sept 03
	Small grants selection at national level	Small grants selected at national level		



## **Output 3.3 Organization of public awareness-raising campaigns on nutrient reduction and control of toxic substances**

### **Tasks**

The objective of this project output is to ensure appropriate public information and communication about the DRB cooperation objectives, activities and accomplishments in order to enhance public participation in DRB activities and to generally build the basis for effective implementation of nutrient reduction, ecosystem management activities and transboundary cooperation at the local, national and regional levels. An overall DRB Education, Information and Communication Strategy (EIC)) will serve to guide subsequent activities which will be determined during the course of implementation. This could include the development of specific information products as well as the preparation and implementation of regional and/or national public awareness activities. Phase 1 of the Project will prepare and start initial EIC related activities in the DRB countries, which will be intensified in Phase 2 of the Project. Further support will be given in both Phases by the publication of periodicals in English and in national languages.

### **Implementation Arrangements**

The initial project activities (the preparation of an EIC) should be carried out by an international consultant with excellent knowledge of the DRB, the ICPDR as well as the goals and objectives of the DRP. They should further have experience in the preparation and implementation of awareness and communication activities about DRB issues. The consultant should work together with other necessary experts in public awareness raising, in cooperation with the ICPDR Secretariat. Consultants for subsequent activities will be chosen based on the needs of the specific assignment. Any country-specific data and information should be provided by national consultants / experts with particular experience and expertise in public awareness raising and community involvement in their respective countries.

Close linkages with the activities of the DEF (3.1) and with the SGP (3.2) are essential. The DEF could be a useful partner in implementing EIC activities and the SGP could be an important mechanism for reaching the determined EIC objectives. This project component is linked with other project elements particularly related to the work programmes of ICPDR EGs that call for an appropriate mechanism for public participation.

## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
3.3-1: Conceptualize and implement public awareness-raising campaigns on nutrient-related issues	Initiate basin-wide EIC (Education-Information-Communication) strategy (short overview paper) and inform national stakeholders	Overview paper on EIC (Education-Information-Communication) strategy	Comments	June 02
	Prepare Draft EIC strategy for DRB	Draft EIC strategy for DRB	Comments	July 02 – Feb 03
	Organize a workshop to discuss EIC strategy and on development of concepts for public awareness- raising and effective cooperation with mass media	Workshop to discuss EIC strategy	None	April 03
	Adapt basin-wide EIC strategy to national needs	Adapted national strategies	None	March 03 – June 03
3.3-2: Develop and produce materials for public press and mass media on nutrients and toxic substances	According to regional / national EIC (Education-Information-Communication) strategy, discuss development and production of materials	Public press and mass media materials on nutrients and toxic substances produced	Recommendations for material and organization of campaigns	April – Sept 03
	Produce for public press and mass media materials on nutrients and toxic substances			
3.3-3: Support publication of scientific documents and regular journals or special issues on water management and pollution reduction with particular attention to nutrient issues and Black Sea recovery	According to regional / national EIC strategies, discuss support for the publication of scientific documents and journals	Publication of scientific documents and regular journals or special issues on water management to improved information on objectives and targets of JAP and EGs Work Programmes	Recommendations	April – Sept 03
	Support the publication of scientific documents and regular journals or special issues on water management			

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

**Output :** A Danube Basin wide system for monitoring and evaluation of environmental impacts is prepared and indicators are identified for process, stress reduction and environmental status in line with EU and international reporting requirements. Economic instruments for nutrient reduction (nutrient trading possibilities) are analysed and findings are published.

**Approach :** Supporting the development and upgrading of monitoring and information systems, which are of significant importance for transboundary cooperation in water quality and water management and of common interest for the Danube and the Black Sea countries. Particular attention will be given to the development of indicators (process, stress reduction and environmental status indicators) to monitor progress of project implementation (DRP, JAP, WFD etc.). For this purpose special methodologies will be developed for assessment nutrient removal capacities of wetlands. Also economic mechanisms will be analysed to encourage investments in nutrient reduction measures.

## **Output 4.1 Development of indicators for project monitoring and impact evaluation**

### **Tasks**

In order to assure efficient monitoring and evaluation of implementation (DRP, JAP, WFD etc.), and to document achievements it is necessary - in line with EU and existing international guidelines, including GEF International Waters Programme requirements - to establish an operational system of indicators (process, stress reduction and environmental status) under the ICPDR. This system will be coordinated with the new EU Water Framework Directive criteria for the assessment of the ecological status of the rivers and for monitoring the achievement of good ecological status will have to be incorporated.

Within Phase 1 of the Project, new indicators and methodologies will be developed, which will be established and applied in Phase 2.

### **Implementation Arrangements**

The project activities should be carried out by an international consultant with particular expertise in the development and use of indicators as well as the monitoring and impact evaluation of water sector projects under the guidance of the ICPDR Secretariat and the relevant Expert Groups (RBM, EMIS, MLIM, ECO EGs).

The consultant will need to cooperate with the consultants responsible for the River Basin Management Component of the DRP (1.1 but in particular 1.1.2 and 1.1.6-11) as well as those working on 1.2, 1.3 and 2.2 of the DRP. All of these components have activities that relate to the identification and use of indicators.

The country specific data and information should be provided by national consultants / experts according to the provisions provided by the international consultant / subcontractor.

## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
4.1-1: Establish a system for M&E in using specific indicators for process (legal and institutional frame), stress reduction (emissions, water abstractions and hydromorphological changes) and environmental status (water quality, ecological status and recovery of ecosystems) to demonstrate results of program (JAP) and project implementation and to evaluate environmental effects of implementation of policies and regulations (nutrient reduction)	Develop a general system of indicators grouped by three indicator categories: <ul style="list-style-type: none"> <li>- process</li> <li>- stress reduction</li> <li>- environmental status</li> </ul>	List of indicators for monitoring and evaluation	Comments from all EGs	Jan 03 – Oct 03
4.1-2: Development of indicators for project evaluation with particular attention to process indicators (DRPC+WFD) and GEF project evaluation	Develop impact indicators (process, stress reduction, environmental status) to evaluate environmental effects of policy and programme implementation	Concept for project evaluation	Comments from all EGs	Jan. 03 – Oct. 03
4.1-3: Assess and review the monitoring networks for surface waters and develop an approach to adapt the monitoring programmes to requirements of the WFD	1. Assessment of the existing monitoring networks for surface waters	Assessment report of the existing monitoring networks for surface waters	Consultation	Jun 02 Oct 03
	2. Develop proposals for an approach to adapt the monitoring programmes to requirements of WFD considering GEF indicators	Recommendation formulated for an approach to adapt the monitoring programmes to requirements of WFD considering GEF indicators	Consultation	

## **Output 4.3 Monitoring and assessment of nutrient removal capacities of riverine wetlands**

### **Tasks**

This project output, is designed to meet the need for a quantified and consistent approach for the appropriate assessment of the nutrient removal capacities of DRB wetlands. It should also demonstrate the possibilities for optimizing such processes via better wetland management while still considering other benefits (biodiversity, water purification etc.) and giving priority to the ecological needs of these ecosystems. Effective implementation would considerably improve the knowledge about nutrient removal through wetlands rehabilitation and would define the technical and economic parameters for efficient wetlands management. This would support a larger GEF need in the frame of Targeted Research. Therefore successful results could be disseminated worldwide

This project output should in principle cover preparatory tasks in Phase 1 before demonstrating an actual observation programme later in Phase 2.. There are numerous wetland rehabilitation activities being undertaken in the DRB (some as part of the GEF Partnership Programme) in which monitoring is foreseen as a component. Therefore, rather than starting a new observation programme, it appears that a more useful contribution of the DRP could be to determine and then oversee the implementation of a common methodology and approach for monitoring wetlands in the DRB. This would involve surveying the current monitoring approaches, bringing together experts to determine a harmonized approach and then working to assure that a consistent methodology for measuring nutrient removal in DRB wetlands is implemented.

### **Implementation Arrangements**

The project activities must be implemented in close cooperation with the ICPDR Expert Groups, in particular the ECO, RBM and MLIM EGs as well as with the Ramsar Convention secretariat. The activities should also be coordinated with the DANUBs project. The project activities will be carried out by international consultants/experts with specific experience in the technical, institutional and financial aspects of wetland protection and rehabilitation projects throughout the DRB. Given this as well as their contribution to the wetlands component of UNDP/GEF Pollution Reduction Programme followed up by WWF coordinated initiatives (Lower Danube Green Corridor etc.) WWF with other experts as needed, will implement this component. The country-specific data and information should be provided by national consultants / experts according to the provisions specified by WWF necessary to achieve the expected results..

Components 1.4 and 4.3, are being carried out by the same consultant/experts given their interlinkages. The consultant should consider the pilot activities being undertaken in the River Basin Management component (output 1.1) and the Best Agricultural Practices component (output 1.3) when choosing its own pilot areas. The mapping needs will be largely met under output 1.4.

## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
4.3-1: Identify and assess the wetlands and floodplains in the DRB by category and define potential observation sites	Elaborate overview on riverine wetlands in the Danube Basin (based on Ramsar classification using CORINE land cover data)	Map of riverine wetlands	Support the collection of data on floodplain distribution (national data) GIS EG; ECO EG; MLIM facilities	Sept 02 – Mar 03
4.3-2: Define the methodological approach for assessment of nutrient removal capacities of wetlands and flood plains	Prepare documentation	Methodology for assessment of nutrient removal capacity defined Workshop	Participation in workshop	Sept 02 – Nov 03
	Organize workshop on review of existing methodologies for the assessment of nutrient removal in wetlands and design approach in the DRB			
	Define methodological approach			
	Pre-sampling in selected sites	Report on results of pre-sampling		
	Prepare and design observation programme	Observation program for nutrient removal	Review of observation design	

## **Output 4.4 Danube Basin study on pollution trading and corresponding economic instruments for nutrient reduction**

### **Tasks**

Whenever the principle of “pollutant auctions” is presently not compatible with the EU water guidelines, which are based on the emission principle, interesting and innovative approaches could be developed and possibly introduced in the forthcoming EU policies to solve the nutrient problem. Further, the results would also contribute to support a larger GEF need for Targeted Research in developing economic instruments for nutrient reduction.

This component should therefore assess the viability and feasibility of “pollution trading” concept in the DRB countries (Phase 1 of the Project) and initiate a broad discussion with all stakeholders on alternative economic concepts for pollution control (Phase 2 of the Project). It should further be noted that the present study proposed for the Danube River Basin (considering in particular the EU policies and directives) is complementary to a similar study conducted by the World Bank in the frame of the Black Sea Regional Project, which shall develop the concept of nutrient emission trading taking into account the specific conditions of the Black Sea countries.

### **Implementation Arrangements**

The project activities should be carried out by an international consultant(s) with expertise in environmental/natural resources economy, especially in EU water sector legislation and in environment funding policy. The consultant should have particular expertise in “pollution trading” in the water and air pollution sector.

Coordination will be needed with the implementation of project activity dealing with EU guidelines for economic analysis (1.1.3) and with water pollution charges (1.7).

Country-specific data and information have to be provided by national consultants / experts on request of the international consultant(s).



## Work Plan

Activities	Implementation Steps	Specific Outputs	ICPDR Expert Groups Input	Time Frame
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	1) Collect and review information regarding existing concepts of pollution trading or corresponding economic instruments	Analysis and assessment report regarding existing concepts of pollution trading or corresponding economic instruments	None	Jul 02 – Sep 02
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	Identify general possibilities for establishing pollution trading or corresponding economic instruments for nutrient reduction in the DRB	Report on general possibilities for establishing appropriate economic instruments for nutrient reduction in the DRB	None	Sep 02 - Dec 02
	Review and analyze the relevant legislation on national and international level	Recommendation for policy creation and for legal framework adjustment	RBM/EG Coordination Consultation	
	Identify constraints and basic obstacles Identify legal and policy changes required	Proposals for legal and policy changes required	None	
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	Study the potential and readiness for pollution trading or corresponding economic instruments on a country level	Report on pollution trading potential and readiness on a country basis	None	Jan 03– Feb 03
	Elaborate principles for a definition and determination of country-specific discharge quotas	Principles for definition of discharge quotas on a country basis	EMIS/EG and MLIM/EG Current levels of pollutants Reduction targets within a specified time frame Status indicators	
	Identify main obstacles to implementation in particular countries	Assessment of general viability of the "pollution trading" concept in the DRB and recommendations to the ICPDR	RBM/EG	
4.4-4: Present the basic findings and discuss the results with all stakeholder groups on a DRB wide workshop	Prepare documentation	Review of economic instruments	RBM Economic Drafting Group	
	Organize workshop on economic instruments for nutrient reduction with particular attention to pollution trading in the DRB"	Workshop and workshop report		

**Project Implementation Schedule - Danube Regional Project - Phase 1**

	PROJECT OUTPUTS AND ACTIVITIES	2002												2003												2004	
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2
<b>1.</b>	<b>Creation of sustainable ecologic. conditions for land use and water management</b>	[Gantt bar: 2002 Q1]																									
<b>1.1</b>	<b>Development and implementation of policy guidelines for river basin and water resources management</b>	[Gantt bar: 2002 Q2 - 2003 Q4]																									
1.1-1	Identify the River Basin District (RBD), with particular attention to coastal waters, and develop respective maps for RBD and sub-units	[Gantt bar: 2002 Q3 - 2003 Q2]																									
1.1-2	Adapt and implement common approaches and methodologies for stress and impact analysis, with particular attention to hydromorphological conditions	[Gantt bar: 2002 Q4 - 2003 Q3]																									
1.1-3	Apply the EU Guidelines for economic analysis and arrive at the overall economic analysis for the Danube River Basin	[Gantt bar: 2002 Q4 - 2003 Q4]																									
1.1-5	Develop RBM tools (mapping, GIS) and related data management	[Gantt bar: 2002 Q4 - 2003 Q3]																									
1.1-6	Develop the typology of surface waters and define the relevant reference conditions	[Gantt bar: 2002 Q4 - 2003 Q2]																									
1.1-7	Implement ecological status assessment in line with requirements of EU WFD using specific bio-indicators	[Gantt bar: 2002 Q4 - 2003 Q2]																									
1.1-8	Characterization and analysis of transboundary groundwater bodies	[Gantt bar: 2002 Q4 - 2003 Q3]																									
1.1-9	Identify pilot river basins and apply common approaches, methodologies, standards and guidelines (taking into account relevant activities within the EU WFD implementation strategy)	[Gantt bar: 2002 Q4 - 2003 Q2]																									
1.1-11	Organize workshops in order to produce the River Basin Management Plan and to strengthen basin-wide cooperation	[Gantt bar: 2002 Q4 - 2003 Q2]																									
<b>1.2</b>	<b>Reduction of nutrients and other harmful substances from agricultural point and non-point sources through agricultural policy changes</b>	[Gantt bar: 2002 Q2 - 2003 Q4]																									
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)	[Gantt bar: 2002 Q3 - 2003 Q3]																									
1.2-2	Review relevant legislation, existing policy programs and actual state of enforcement in the DRB with respect to promotion and application of best agricultural practices	[Gantt bar: 2002 Q3 - 2003 Q3]																									
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	[Gantt bar: 2002 Q3 - 2003 Q3]																									
1.2-4	Identify main institutional, administrative and funding deficiencies (including complementary measures) to reduce pollutants	[Gantt bar: 2002 Q3 - 2003 Q3]																									
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	[Gantt bar: 2002 Q3 - 2003 Q3]																									
1.2-6	Discuss the new concepts with governments, farming communities and NGOs in the basin and disseminate results among them	[Gantt bar: 2002 Q3 - 2003 Q3]																									











	PROJECT OUTPUTS AND ACTIVITIES	2002												2003												2004	
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2
		4.	<b>Reinforcement of monitoring, evaluation and information systems to control transboundary pollution, and to reduce nutrients and harmful substances</b>																								
4.1	<b>Development of indicators for project monitoring and impact evaluation</b>																										
4.1-1	Establish a system for M&E in using specific indicators for process, stress reduction and environmental status to demonstrate results of program (JAP) and project implementation and to evaluate environmental effects of implementation of policies and regulations																										
4.1-2	Development of indicators for project evaluation with particular attention to process indicators (DRPC+WFD) and GEF project evaluation																										
4.1-3	Assess and review the monitoring networks for surface waters and develop an approach to adapt the monitoring programmes to requirements of the WFD																										
4.3	<b>Monitoring and assessment of nutrient removal capacities of riverine wetlands</b>																										
4.3-1	Identify and assess the wetlands and floodplains in the DRB by category to define potential observation sites																										
4.3-2	Define the methodological approach for the assessment of nutrient removal capacities of wetlands and flood plains																										
4.4	<b>Danube Basin study on pollution trading and corresponding economic instruments for nutrient reduction</b>																										
4.4-1	Review existing concepts of successful "pollution trading / auctions" and corresponding economic instruments in the water and air pollution sectors, e.g. in the US, Australia and Europe																										
4.4-2	Study the principle possibilities of "pollution trading" and corresponding economic instruments for nutrient reduction taking into account EU policies and directives in the Danube River Basin																										
4.4-3	Assess the main problems / obstacles for "pollution trading" and corresponding economic instruments in the DRB and the interest of the particular DRB countries in implementation																										
4.4-4	Present the basic findings and discuss the results with all stakeholder groups in a DRB-wide workshop																										

- Mobilisation / Inception Phase
- Preparation / Planning phase of Project Outputs
- Implementation phase of Project Outputs
- Implementation of Project Activities
- Consolidation phase of Project Outputs