October 2005

DANUBE - BLACK SEA BASIN STRATEGIC PARTNERSHIP

Interim Progress Report – Annex 1

Working for the Danube and Black Sea

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AT	Austria
BA	Bosnia and Herzegovina
HR	Croatia
CZ	Czech Republic
SI	Slovenia
SK	Slovakia
CS/SAM	Serbia and Montenegro
DE	Germany
HU	Hungary
RO	Romania
MD	Moldova
UA	Ukraine
BG	Bulgaria
RU	Russian Federation
GE	Georgia
TR	Turkey

ABBREVIATIONS

APC EG	Accident Prevention and Control Expert Group
BAT	Best Available Technology
BEP	Best Environmental Practices
BOD	Biological Oxygen Demand
BS	Black Sea
BSC	Black Sea Commission
BSERP	Black Sea Ecosystems Recovery Project
CAP	Common Agricultural Policy
CAS	Country Assistance Strategy
CCF	Country Cooperation Framework
COD	Chemical Oxygen Demand
DABLAS Task Force	Danube – Black Sea Task Force
DEF	Danube Environmental Forum

DRB	Danube River Basin
DRP	Danube Regional Project
DRPC	Danube River Protection Convention
EC	European Commission
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
EMIS EG	Emission Expert Group
EPDRB	Environmental Programme for the Danube River Basin
EUR	Euro
EU WFD	European Union Water Framework Directive
EU UWWT D	EU Urban Waste Water Treatment Directive
EU CARDS	EU Community Assistance for Reconstruction, Development and Stabilization
GEF	Global Environment Facility
GEFSEC	GEF Secretariat
GIS	Geographical Information System
GPA	Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
IA	Implementing Agency
ICPDR	International Commission for the Protection of the Danube River
ICZM	Integrated Coastal Zone Management
IFNR	World Bank GEF Investment Fund for Nutrient Reduction in the Black Sea and the Danube
IPPC	Integrated Pollution Prevention and Control (Directive)
ISPA	Instrument for Structural Policies for Pre-Accession
IW	International Waters
JAP	Joint Action Programme
JTWG	Joint Technical Working Group
LBA	Land Based Activities
MLIM EG	Monitoring, Laboratory and Information Management Expert Group
MONERIS	Modelling Nutrient Emission in River System
M&E	Monitoring and Evaluation
N	Nitrogen
NGOs	Non Government Organisations

P	Phosphorus
Phare/TACIS	EC Financial support to non-EU and former non-EU countries
PRP	Pollution Reduction Programme
PIAC	Principal International Alert Centre
RBM	River Basin Management
REC	Regional Environmental Centre
SAP	Strategic Action Programme
SAPARD	Special Accession Programme for Agriculture and Rural Development
SP	Strategic Partnership
TDA	Transboundary Diagnostic Analysis
TNMN	Trans National Monitoring Network
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNOPS	United Nations Office for Project Services
USD	United States Dollar
WB	World Bank

EXECUTIVE SUMMARY

GEF and its Implementing Agencies have initiated a Strategic Partnership (the Partnership) consisting of capital investments, economic instruments, development of environmental policies and legal instruments, strengthening of public participation and monitoring of trends and compliance with proposed measures for pollution control and nutrient reduction over the period of 2001 to 2007 for the 16 countries[1] of the Danube-Black Sea basin.

The *long-term objective* is for all Black Sea basin countries to take measures to reduce nutrient levels and other hazardous substances to such levels necessary to permit Black Sea ecosystems to recover to similar conditions as those observed in the 1960s. The *intermediate objective* of the Partnership includes the implementation of urgent control measures by the 16 countries in the Danube-Black Sea basin to avoid that discharges of nitrogen and phosphorus to the Black Sea exceed those levels observed in 1997. Through the formulation process, six objectives with indicators of success were adopted by the 16 nations for this Strategic initiative for the six year duration of the Partnership.

The GEF assistance is designed as three complementary components:

- The GEF Black Sea Ecosystems Recovery Project (BSERP) implemented by UNDP, with the assistance of UNEP and in cooperation with the Black Sea Commission (BSC);
- The GEF Danube Regional Project (DRP) implemented by UNDP and in cooperation with the International Commission for the Protection of the Danube River (ICPDR); and
- The GEF/World Bank Partnership Investment Fund focused on country nutrient reduction investments.

Overall, disbursement of the first half of funding for each of the two regional UNDP/GEF projects (DRP and BSERP) has achieved key elements of all the Partnership's objectives. The progress of the two projects is also influenced by a number of circumstances including, improving economic and social conditions of the countries, the EU accession process, etc. The DRP has, in particular, benefited from the strong support of the ICPDR and the Contracting Parties to the ICPDR. Both projects have completed mid-term evaluations and will be able to capitalize on the lessons learned so far for the second half of each regional project.

The UNDP/GEF projects within the Partnership have had a leading role in regional capacity building by bridging policy decisions among the recipient countries. This has emphasised the importance of incorporating transboundary pollution issues, particularly nutrient reduction, into national environmental action plans.

The EU directives exert a strong legislative framework for implementing change within the Danube region and parts of the Black Sea leading to improved environmental procedures and enforcement of regulations.

Significant investment needs have been identified throughout the Danube and Black Sea basins. To-date a total of over 200 investment projects, representing a combined total investment of 3,294 MUSD and N and P reductions of approximately 25.85 kt/a (metric tons per year) and 4.13 kt/a respectively have been implemented or are scheduled for completion within the next few years.

Summary Overview on Projects – under implementation / fully financed

[1] Austria, Bosnia and Herzegovina, Croatia, Czech Republic, Slovenia, Slovakia, Serbia and Montenegro, Germany, Hungary, Romania, Moldova, Ukraine, Bulgaria, Russian Federation, Georgia, Turkey.

Timeframe	No. of Projects	Total Investment MUSD	Nutrient Removal, t/a	
			N	P
Completed by Dec 2003	56	803	5,351	1,013
Completed in 2004 and 2005	35	475	4,552	836
Completed after 2005 (full financed)	106	1440	>10,013	>1,839
World Bank-GEF NRIF (implem., prep, pipeline)	14	576	5,936	443
TOTAL	**211**	**3,294**	**>25,852**	**>4,131**

Among the 211 fully financed projects, 128 are situated within the DRB EU member countries: Austria, Germany Czech Republic, Hungary, Slovakia, and Slovenia. Municipal sector projects account for the majority of the fully financed projects, and national co-financing provided more than 50% of total municipal investments. Most GEF-WB investments are instead concentrated on non-EU countries and in the agricultural sector. Investments in Russia and Ukraine have also considerably increased in recent years, with 9 municipal projects due for completion in 2006 in Russia and 46 projects (of a smaller size) in Ukraine.

The fully financed industrial sector projects have, in all cases, been 100% financed through national public and/or own private sources. Considerable amounts of national funds have also been extended to the wetland restoration projects in Austria and Germany; EU financing has also supported some of the wetland projects in these 2 countries. In other countries, wetland restoration projects (12 in total) have mostly drawn on external, international grant financing.

To put these nutrient reduction figures in perspective:

Nitrogen emissions to the Danube River Basin:

> The total nitrogen emissions to the Danube are estimated as 700 kt/a. For comparison, the most recent observed nitrogen (dissolved inorganic nitrogen) load, from the ICPDR's monitoring network (TNMN), to the Black Sea is ca. 410 kt/a (2000-2002 average).

Phosphorus emissions to the Danube River Basin:

> The total phosphorus emissions to the Danube are estimated 70 kt/a total. For comparison the observed phosphorous load to the Black Sea is ca. 12 kt/a (2000-2002 average); a sizeable fraction of P emissions to the Danube are trapped behind the Iron Gates dam complex.

In addition to the investments made in infrastructure (including, municipal, agricultural point and non-point source pollution control, industrial pollution reduction and wetland rehabilitation) that have resulted (or will result) in the above reductions, there have been significant efforts by the countries to reform their policies and legislation applicable to environmental protection. Both projects have supported the Commissions and the Countries in implementing these changes together with the necessary strengthening in enforcement procedures. The benefits, in terms of nutrient reduction, are difficult, if not impossible, to quantify. However all counties in the Danube

River Basin and most in the Black Sea, have either implemented or are in the process of implementing new policies and legislation which support nutrient reduction. Within the Danube River Basin, three countries have already imposed voluntary bans on p-containing detergents (DE, AT and CZ). With the assistance of the DRP, the ICPDR is actively encouraging a wider introduction of such a ban. Four countries in the DRB (CZ, SK, SL and HU) have recently become members of the European Union and three more (RO, BG, HR) are in the accession process. They have (or are in the process of) implemented a wide range of Directives aimed at environmental protection that will have a positive impact on the Partnership's objectives. Within the DRB the non-accession countries (CS, BA, MD, UA) have expressed willingness to comply with specific directives, most notably the Water Framework Directive and to co-operate with other countries within the frame of the ICPDR. The key water directives are the Nitrates Directive, Urban Wastewater Directive and the recent Water Framework Directive. In addition the Integrated Pollution Prevention and Control Directive will control industrial pollution in particular, again having a positive contribution to the Objectives of the Partnership. A summary of key environmental legislation and the implementation in the Danube – Black Sea Basin is provided in annex 2.

After years of enduring debilitating eutrophication, the Western Black Sea ecosystem has started to show signs of recovery, and the present ecosystem health is better off than it was in the 1970s and 1980s. The two cruises carried out by the BSERP in autumn 2003 and spring 2004 were the most extensive surveys of benthic ecology since 1990. Clear evidence was found of partial recovery of mussel beds and many other bottom-living animals, but very little recovery of the *Phyllophora* meadows. The meadows are regarded as a clear indicator of a 'good environmental state' of the Black Sea itself. One of the reasons that recovery of mussel beds has only begun very recently however, is that there was an unexpected widespread occurrence of hypoxia in the late summer of 2001. This followed an exceptionally hot summer and late rainfall that together appear to have triggered a major summer plankton bloom. The low oxygen conditions again caused a major mortality of benthic (bottom living) organisms. This example illustrates the increased vulnerability of ecosystems that have lost much of their resilience, as well as the present trends in the improvement of the state of the Black Sea can be negatively affected. While these positive trends are due to the sudden decrease in pollution emissions following the collapse of the former communist regimes in Central and Eastern Europe, the GEF regional projects since 1991 and country investments should be seen as contributing as well. Coincident with the recovery of regional economies there is a risk that pollution discharges will increase in particular from agricultural diffuse nutrient sources. These risks can be mitigated by effective implementation of the Water Framework Directive and careful implementation of the EU's Common Agricultural Policy. It is unlikely that emissions will go back to those of the Soviet era, but maintaining mid-1990s levels will be an important challenge.

The *long-term objective* of the Partnership is for all Black Sea basin countries to take measures to reduce nutrient levels and other hazardous substances to such levels necessary to permit Black Sea ecosystems to recover to similar conditions as those observed in the 1960s. The *intermediate objective* of the SP includes the implementation of urgent control measures by all countries in the Black Sea basin to avoid that discharges of nitrogen and phosphorus to the Black Sea exceed those levels observed in 1997. Through the formulation process, six objectives with indicators of success were adopted by the 16 nations for this Strategic initiative for the entire 6 year period. They are reported on in detail onwards in this paper. Ensuring the sustainability of the Partnership results will depend on enhancing integrated resource management, with an eye on both improving environmental conditions and economic efficiency.

Based on stakeholder input to the October 2004 Stocktaking meeting and mid-term evaluations of the two UNDP/GEF projects, key areas of focus during the remaining funding period of 2005-2007 include:

- Increase outreach efforts to the agriculture and industrial sector, promoting BAP and BAT.
- Further capacity building, particularly using Inter-Ministerial Coordinating Mechanisms as a facilitating platform.
- Further develop economic instruments and promotion of investment opportunities for pollution control and ecosystem protection.
- Enhance public participation efforts, through expanded small grants programmes to the NGO community.
- Continue fostering programmes to phase out P detergents.
- Harmonizing monitoring and evaluation efforts between the Danube River Basin and Black Sea coastal countries.
- Reinforce collaboration with complementary initiatives within the Partnership.

Summary of the Partnership Progress, 2005 April

	Objective	Indicator	Progress Assessment, 2005 Sept
1.	In support of the implementation of the Black Sea Strategic Action Plan and the "Common Platform for Development of National Policies and Actions for Pollution Reduction under the Danube River Protection Convention", and taking into account the mandate of the Sofia and Bucharest Conventions, Danube/Black Sea basin countries adopt and implement policy, institutional and regulatory changes to reduce point and non-point source nutrient discharges, restore nutrient "sinks", and prevent and remediate toxic substances "hot spots".	By 2007, 100% of participating countries introduce one or more policy or regulatory measures (including P-free detergents) to reduce nutrient discharges in the agricultural, municipal, or industrial sectors, to restore nutrient sinks (wetlands, flood plains), and to prevent and remediate toxic substances "hot spots", and 50% adopt multiple policy measures, towards goals of maintaining 1997 levels of nutrient inputs to the Black Sea, and reducing toxic substances contamination in the basin.	Each of the DRB and most of BS countries have introduced one or more policies to reduce nutrient discharges; half have introduced multiple measures. **Progress estimate: 100%**
2.	Countries gain experience in making investments in nutrient reduction and prevention and remediation of toxic substances "hot spots".	100% of participating countries initiate one or more investments in agricultural, municipal, land use or industrial sectors for nutrient discharge reduction, nutrient sink restoration, and prevention and remediation of hot spots of toxic substances, some with GEF assistance, by 2007 to accompany expected baseline investments.	**All** DRB and BS countries have initiated one or more investments aimed at nutrient reduction. 14 country based investment projects in agricultural pollution control, municipal wastewater treatment (advanced) and wetland restoration under the WB Investment Fund for Nutrient Reduction. **Progress estimate: 100%**
3.	Capacity of the Danube and Black Sea Convention Secretariats is increased through, sustainable funding, and developing of international waters process, stress reduction and environmental status indicators adopted through Convention processes.	Payments of contributions by all contracting parties to the Danube and Istanbul Conventions made for 2000 and 2001 and pledged for the period beyond project duration. Nutrient control, toxic substances reduction and ecosystem indicators assessing processes in place, stress reduction, and environmental status, are developed, harmonized and adopted for reporting to Secretariat databases by 2006.	Contributions to ICPDR pledged, except for Bosnia & Herzegovina, which has recently joined. Regular payment of contributions to the BSC remains a challenge. Only Georgia has been unable to pay in due time (5 pending payments). Indicators achieved e.g.: ICPDR HoD

	Objective	Indicator	Progress Assessment, 2005 Sept
			meetings, WFD implementation plan, public participation strategy (process); completed investments, BAT and BAP introduced (Stress Reduction); reduction of nutrients emissions entering DRB (Moneris), improvement of oxygen and benthic community in Black Sea (Environmental Status) Emission database (EMIS) and monitoring network (TNMN) established for DRB. Plans for BS in Phase II. Monitoring system and database developed and upgraded for BSC. Continuing support planned for Phase II. **Progress estimate: 50%**
4.	Country commitments to a cap on nutrient releases to the Black Sea at 1997 levels and agreed targets for toxic substances reduction for the interim, and possible future reductions or revisions using an adaptive management approach after 2004 are formalized into specific nutrients control and toxic substances discharge protocol(s) or Annex(s) to both Conventions.	Countries adopt protocols or annexes to their two conventions and/or develop legally binding "Action Plans" regarding nutrients and toxic substances reduction commitments as part of their obligations under the GPA for Land-Based Sources of pollution to the Danube/Black Sea basin by 2006 towards agreed goals to restore the Sea to 1960's environmental status. For the Danube, such a commitment will be contained in the revised Nutrient Reduction Plans (coherent with the ICPDR Joint Action Programme) and developed in accord with the application of the relevant EU Water Directives.	MoU between ICPDR and BSC DRB: EU WFD Roof Report approved by Heads of Delegation Meeting (Dec 04), as a key milestone under the implementation of the WFD. All countries in the DRB (EU and non-EU) participated. DRB: ICPDR Joint Action Programme including nutrient reduction plans (JAP). BS: LBA protocol developed and under BSC consideration. BS: ICZM strategy valid; plan in Phase II. UNEP-BS: Work Program to Enhance the Implementation of the Black Sea LBA Protocol Taking into Consideration the GPA Objectives under implementation **Progress estimate: 50-75%**
5.	Implementing Agencies, the European Union, other funding partners and countries formalize nutrient and toxic substances reduction commitments into IA, EU and partner regular programs with	Regular programs of IA's and EC support country nutrient and/or toxic substances reduction commitments during 2001-2007 as part of expected baseline activities and incorporate them into CCF (UNDP), GPA Office Support	**EC**: DABLAS Task Force (DRB and BS) established with the objective of co-ordinating and prioritising investment needs within the basin. WB (BG, HU, MD, RO, RU, TR). EU ISPA and EBRD for municipal sector, other EU

	Objective	Indicator	Progress Assessment, 2005 Sept
	countries.	(UNEP), CAS (WB), and EU (Accession Support) by 2005.	programmes. **UNDP:** mainstreaming and promoting replication of Black Sea and Danube programmes through Bratislava Regional Service Centre and UNDP Country Offices; core UNDP funding provided for GEF IW Regional Coordination post **World Bank:** Black Sea / Danube waterbody pollution issues have been incorporated in ten out of twelve Country Assistance Strategies prepared in the Black Sea / Danube Basin since 2000. **UNEP:** UNEP/GPA is providing policy advice to the Black Sea Commission and the GEF-BSERP PIU for the implementation of the Black Sea Commission's programme for 2005 as it pertains to the GPA and Black Sea concerns dealing with nutrients, persistent organic pollutants, radioactive substances, heavy metals and other toxic substances. **Progress Estimate: 75%**
6.	Pilot techniques for restoration of Danube/Black Sea basin nutrient sinks and reduction of non-point source nutrient discharges through integrated management of land and water resources and their ecosystems in river sub-basins by involving private sector, government, NGO's and communities in restoration and prevention activities, and utilizing GEF Biodiversity and MSP protocols to accelerate implementation of results.	All countries in basin begin nutrient sink restoration and non-point source discharge reduction by 2007 through integrated river sub-basin management of land, water and ecosystems with support from IA's, partners and GEF through small grants to communities, biodiversity projects for wetlands and flood plain conservation, enforcement by legal authorities and holistic approaches to water quality, quantity and biodiversity of aquatic ecosystems. Plans (coherent with the ICPDR Joint Action Programme) are developed in accord with the application of the relevant EU Water Directives.	WB leverage through Nutrient Investment Fund: wetlands restoration, agriculture reform and mainstreaming of good agricultural practices. Sava River, sub-basin management. Tisza River, sub basin management plan in development Small grant programmes: DRP and BSERP. DRB: Roof Report, integrated management. BS: ICZM plan and TDA/SAP for Phase II.

	Objective	Indicator	Progress Assessment, 2005 Sept
			Progress estimate: 40 - 50%

1. INTRODUCTION TO DANUBE/BLACK SEA BASIN STRATEGIC PARTNERSHIP INTERIM REPORT – ANNEX 1

This report presents the progress made on the Danube-Black Sea Basin Strategic Partnership (the Partnership), since its inception outlined during the June 2000 Istanbul Stocktaking meeting. This report, to be submitted to the GEF Council in November 2005, is a concise summary of the progress made with respect to the indicators for success of the Partnership's six objectives adopted by the 16 countries[2] in the Danube/Black Sea basin. An evaluation of the ecosystem health and realized environmental improvements in the basin is also included.

At a meeting in Istanbul in 2000, the 16 nations requested GEF and its Implementing Agencies to initiate a Strategic Partnership consisting of capital investments, economic instruments, development of environmental policies and legal instruments, strengthening of public participation, and monitoring of trends and compliance, all measures for pollution control and nutrient reduction over the period of 2001 to 2007 for the countries of the Danube-Black Sea basin. The interventions of GEF are intended to complement and to reinforce the activities of the 16 countries, the EC, EBRD, EIB and other multilateral and bilateral agency partners aiming at similar objectives related to pollution control leading to the rehabilitation of the Danube and Black Sea ecosystems.

The Danube-Black Sea Basin Strategic Partnership was also established as part of a test, responding to Objective 8.5(e) of GEF's Operational Programme 8, to determine if GEF can serve as a catalyst in leveraging policy, legal, and institutional reforms and priority investments for reversing degradation of a damaged marine ecosystem and its contributing freshwater basins. The 16 countries in the Black Sea drainage basin share a variety of environmental problems that are largely transboundary in nature. Through GEF and donor involvement since 1992 in the region, the countries determined that excessive releases of nutrients (Nitrogen and Phosphorus) from agricultural, municipal, and industrial sources is the highest priority transboundary water issue.

The *long-term objective* is for all Black Sea basin countries to take measures to reduce nutrient levels and other hazardous substances to such levels necessary to permit Black Sea ecosystems to recover to similar conditions as those observed in the 1960s. The *intermediate objective* of the Partnership includes the implementation of urgent control measures by all countries in the Black Sea basin to avoid that discharges of nitrogen and phosphorus to the Black Sea exceed those levels observed in 1997. Through the formulation process, six objectives with indicators of success were adopted by the 16 nations for this Strategic initiative for the duration of the Partnership. They are reported on in detail onwards in this paper.

The GEF and other donor assistance throughout the 1990s led to development of Strategic Action Programs (SAPs) for the Danube River and Black Sea that assign priorities to transboundary problems and interventions needed to address the highest priority pressures. The ICPDR, the institution responsible for overseeing compliance with the Danube River Protection Convention and implementation of its associated programmes, have since developed a Joint Action Programme (JAP) for the Danube River Basin and the implementation of this is being strongly assisted by the DRP.

[2] Austria, Bosnia and Herzegovina, Croatia, Czech Republic, Slovenia, Slovakia, Serbia and Montenegro, Germany, Hungary, Romania, Moldova, Ukraine, Bulgaria, Russian Federation, Georgia, Turkey

The Partnership represents the GEF's commitment to assist the 14 recipient countries[3] in the basin addressing, as the highest transboundary priority, nutrient reduction. The GEF assistance is designed as three complementary components:

- The GEF Black Sea Ecosystems Recovery Project implemented by UNDP, with the assistance of UNEP and in cooperation with the BSC;
- The GEF Danube Regional Project implemented by UNDP and in cooperation with the ICPDR; and
- The GEF/World Bank Partnership Investment Fund for Nutrient Reduction focused on country nutrient reduction investments.

Over the period of 2001-2007, the Partnership aims at catalysing capital investments, economic instruments, development and enforcement of environmental law and policy, strengthening of public participation, and monitoring of trends and compliance for the 16 countries of the Danube/Black Sea basin.

Recognizing that eutrophication is a pressing ecological threat to the fragile Black Sea ecosystem and that the Danube is a major nutrient source for the sea, the Black Sea Commission and the International Commission for the Protection of the Danube River decided to join efforts to reduce inputs from the Danube and protect the Black Sea from further degradation, by signing a Memorandum of Understanding in November 2001, to expand their commitment for collaborative action.

Structure of this Report

Following the GEF International Waters M & E Indicators Framework (Process, Stress Reduction and Environmental Status) this report presents a summary against each of the six Partnership's objectives and indicators. These objectives correspond to the GEF's Process and Stress Reduction indicators. A separate section on the current state of the Black Sea and Danube providing summary information on nutrients trends, oxygen levels and information on the ecological recovery correspond to the GEF's Environmental Status indicators. To conclude, a short summary of the focus for both the DRP and BSERP Phase II, together with issues to be addressed in the longer term (beyond the current Partnership timescale) is presented.

Sources of Information for this Report

A wealth of information is available on the efforts associated with the Partnership. Tables and figures are reproduced from existing reports and publications and these are acknowledged in the text. But the main sources of information for this report included:

- Danube and Black Sea Stocktaking Report (November 2004)
- Reports from the Partnership partners at the Stocktaking Meeting
- Mid-Term Evaluations of DRP and BSERP
- ICPDR's Interim Report for the Joint Action Programme

[3] Bosnia and Herzegovina, Croatia, Czech Republic, Slovenia, Slovakia, Serbia and Montenegro, Hungary, Romania, Moldova, Ukraine, Bulgaria, Russian Federation, Georgia, Turkey

- ICPDR's Roof Report (meeting the requirements of the EU Water Framework Directive). Danube Basin Analysis (WFD Roof Report 2004), March 2005. International Commission for the Protection of the Danube River;
- ICPDR's contribution DABLAS Task Force 2004 report – 'Evaluation of Policies, Regulation and Investment Projects Implemented in the Danube River Basin Countries in line with EU Directives and Regulations
- Recent reports provided by the BSERP country offices on the status of investments in Georgia, Russia, Ukraine and Turkey. These reports were prepared together with the Black Sea Commissioners, Ministries of Environment and other related Ministries of the corresponding countries.
- World Bank Investment Fund Progress Report, October 2004.
- Austrian Interim-Report on the Implementation of the ICPDR - Joint Action Programme 2001 – 2005 for the years 2001-2003
- Germany: Summary Report on the implementation of policies, regulations and measures of compliance in line with the JAP and EU water directives. November 2004

2. OVERALL PROGRESS ON THE STRATEGIC PARTNERSHIP: OBJECTIVES VS. INDICATORS (PROCESS AND STRESS REDUCTION)

The six Partnership objectives and indicators of success are listed below; the Partnership Brief that was approved by the May 2001 GEF Council specifies these objectives and indicators.

	Partnership Objective	**Indicator**
1.	In support of the implementation of the Black Sea Strategic Action Plan and the "Common Platform for Development of National Policies and Actions for Pollution Reduction under the Danube River Protection Convention", and taking into account the mandate of the Sofia and Bucharest Conventions, Danube/Black Sea basin countries adopt and implement policy, institutional and regulatory changes to reduce point and non-point source nutrient discharges, restore nutrient "sinks", and prevent and remediate toxic substances "hot spots".	By 2007, 100% of participating countries introduce one or more policy or regulatory measures (including P-free detergents) to reduce nutrient discharges in the agricultural, municipal, or industrial sectors, to restore nutrient sinks (wetlands, flood plains), and to prevent and remediate toxic substances "hot spots", and 50% adopt multiple policy measures, towards goals of maintaining 1997 levels of nutrient inputs to the Black Sea, and reducing toxic substances contamination in the basin.
2.	Countries gain experience in making investments in nutrient reduction and prevention and remediation of toxic substances "hot spots".	100% of participating countries initiate one or more investments in agricultural, municipal, land use or industrial sectors for nutrient discharge reduction, nutrient sink restoration, and prevention and remediation of hot spots of toxic substances, some with GEF assistance, by 2007 to accompany expected baseline investments.
3.	Capacity of the Danube and Black Sea Convention Secretariats is increased through, sustainable funding, and developing of international waters process, stress reduction and environmental status indicators adopted through Convention processes.	Payments of contributions by all contracting parties to the Danube and Istanbul Conventions made for 2000 and 2001 and pledged for the period beyond project duration. Nutrient control, toxic substances reduction and ecosystem indicators assessing processes in place, stress reduction, and environmental status, are developed, harmonized and adopted for reporting to Secretariat databases by 2006.
4.	Country commitments to a cap on nutrient releases to the Black Sea at 1997 levels and agreed targets for toxic substances reduction for the interim, and possible future reductions or revisions using an adaptive management approach after 2004 are formalized into specific nutrients control and toxic substances discharge protocol(s) or Annex(s) to both Conventions.	Countries adopt protocols or annexes to their two conventions and/or develop legally binding "Action Plans" regarding nutrients and toxic substances reduction commitments as part of their obligations under the GPA for Land-Based Sources of pollution to the Danube/Black Sea basin by 2006 towards agreed goals to restore the Sea to 1960's environmental status. For the Danube, such a commitment will be contained in the revised Nutrient Reduction Plans (coherent with the ICPDR Joint Action Programme) and developed in accord with the application of the relevant EU Water Directives.
5.	Implementing Agencies, the European Union, other funding partners and countries formalize nutrient and toxic substances reduction commitments into IA, EU and partner regular programs with countries.	Regular programs of IA's and EC support country nutrient and/or toxic substances reduction commitments during 2001-2007 as part of expected baseline activities and incorporate them into CCF (UNDP), GPA Office Support (UNEP), CAS (WB), and EU (Accession Support) by 2005.
6.	Pilot techniques for restoration of Danube/Black Sea basin nutrient sinks and reduction of non-point source nutrient discharges through integrated management of land and water resources and their ecosystems in river sub-basins by involving private sector, government,	All countries in basin begin nutrient sink restoration and non-point source discharge reduction by 2007 through integrated river sub-basin management of land, water and ecosystems with support from IA's, partners and GEF through small grants to communities, biodiversity projects for wetlands and flood plain conservation, enforcement by

	NGO's and communities in restoration and prevention activities, and utilizing GEF Biodiversity and MSP protocols to accelerate implementation of results.	legal authorities and holistic approaches to water quality, quantity and biodiversity of aquatic ecosystems. Plans (coherent with the ICPDR Joint Action Programme) are developed in accord with the application of the relevant EU Water Directives.

2.1. Partnership Objective 1

In support of the implementation of the Black Sea Strategic Action Plan and the "Common Platform for Development of National Policies and Actions for Pollution Reduction under the Danube River Protection Convention", and taking into account the mandate of the Sofia and Bucharest Conventions, Danube/Black Sea basin countries adopt and implement policy, institutional and regulatory changes to reduce point and non-point source nutrient discharges, restore nutrient "sinks", and prevent and remediate toxic substances "hot spots".

2.1.1. Partnership Objective 1: Progress Summary

Country	**Indicator** By 2007, 100% of participating countries introduce one or more policy or regulatory measures (including P-free detergents[4]) to reduce nutrient discharges in the agricultural, municipal, or industrial sectors, to restore nutrient sinks (wetlands, flood plains), and to prevent and remediate toxic substances "hot spots", and 50% adopt multiple policy measures, towards goals of maintaining 1997 levels of nutrient inputs to the Black Sea, and reducing toxic substances contamination in the basin.
Czech Republic **CZ**	Yes, multiple
Slovakia **SK**	Yes, multiple
Hungary **HU**	Yes, multiple
Slovenia **SI**	Yes, multiple
Croatia **HR**	Yes, multiple
Bosnia-Herzegovina **BA**	New Water and Environment Laws expected in 2005
Serbia-Montenegro **CS**	Water legislation under preparation, support to approximation of Nitrates Directive. Adoption of Code of Good Agricultural Practices
Bulgaria **BG**	Yes, multiple
Romania **RO**	Yes, multiple
Moldova **MD**	Yes; restructuring institutional arrangements. Harmonisation with EU Dangerous Substances Directive. Development of Water Quality Management Plan – Dnister River (joint with UA)

[4] 3 Countries in the Danube River Basin have already established voluntary bans on p-detergents. ICPDR actively encouraging, with support from DRP, wider adoption of this approach.

Ukraine **UA**	Water management legislation under revision, development of CZMP and associated policy and legal framework. Development of Water Quality Management Plan – Dnister River (joint with MD)
Russian Federation **RU**	Target legislation on South Russia (Black Sea). Phase-out of domestic P detergents in Rostov City
Georgia **GE**	Yes, law on ICZM (developed within WB ICZM project)
Turkey **TR**	Yes, supporting the implementation of Nitrate Directive (91/676/EC) in Turkey. Adoption of Code of Good Agricultural Practices
Progress Estimate:	**100%**

2.1.2. Partnership Objective 1: Progress

The Partnership has a strong focus on facilitating legal, policy, and institutional reform in support of transboundary nutrient reduction.

The UNDP/GEF projects within the Partnership have had a leading role in regional capacity building, by bridging policy decisions among the recipient countries, underscoring the importance of incorporating transboundary pollution issues, particularly nutrient reduction, into national environmental action plans. These efforts are complementary to the implementation of the EU Water Framework Directive (WFD), and the WFD has been an opportune platform for emphasizing the importance of integrated water resources management.

Completion of the WFD Roof Report[5]in 2005 March for the Danube River Basin represents a major step toward integrated management of the Danube. Each of the 13 Danube River Basin countries, including the non-accession countries, participated in the preparation of the Roof Report. This activity, led by the ICPDR, was significantly assisted by inputs from the DRP.

In Phase 2 of the BSERP an updated Transboundary Diagnostic Analysis (TDA) for the Black Sea, including the use of the Integrated Coastal Zone Management (ICZM) guidelines given in the EU Strategy on ICZM, will be undertaken. It will lead to an update/revision of the Black Sea Strategic Action Plan (BSSAP). This process will build on the activities, which have been initiated by the BSC.

The EU Directives and policy instruments are major driving forces throughout the Danube and Black Sea basins: including, the Water Framework Directive (WFD); Urban Wastewater Treatment

[5] The EU WFD is the most significant water legislation introduced in Europe. Central to the Directive is the establishment of 'Good Environmental Status' by 2015. This Directive is proving to be a key driver within the DRB for implementing water quality improvement programmes that will contribute to the Partnership's objectives of reducing nutrient pollution and controlling toxic substances discharges to the Black Sea. An important milestone of the WFD implementation has been the requirement for a 'characterisation' report to be prepared by Member States covering all river basins. This report covered a wide range of physical, chemical, biological and economic issues associated with the Danube River Basin. The ICPDR with support from the Danube countries co-ordinated the production of this report covering issues of 'basin wide' importance – the Roof Report. The Member States were required to also submit this report together with a detailed country report to the European Commission. Countries not in the EU or not in the process of acceding to the EU (Moldova, Ukraine, Bosnia & Herzegovina and Serbia & Montenegro were also actively involved in this process.

(UWWT) Directive; Nitrates Directive; Integrated Pollution Prevention Control (IPPC) Directive; Common Agricultural Practices (CAP). A table, summarising the progress of the DRB countries to implement the EU directives is given in annex 3.

The EU UWWT Directive has been the main driving force in Europe in reducing pressure exerted by municipal wastewater discharges. N and P removal are required for discharges to sensitive surface water bodies, as designated by national policy makers. Within the Danube catchment, the majority of municipal wastewater plants in Austria or Germany have tertiary treatment.

Experience gained through the engagement of basin countries during the development of the Strategic Action Programme for the Danube was translated into an integral part of the UWWT negotiations among the recent EU member states. The Czech Republic, Slovakia, and Slovenia have declared all surface water resources as sensitive, thus N and P removal is required for wastewater plants having capacities larger than 10,000 population equivalents.

The experience of the recent EU member countries in implementing the UWWT Directive is now being transferred to the present accession countries (BG, RO, TR, HR). The EU ISPA programme is a key mechanism in providing technical and financial assistance for environmental infrastructure improvements, such as municipal wastewater treatment. Lessons learned and criteria developed during the accession of CZ, HU, SI, and SK are being carried over with ISPA assistance in BG and RO. For example, N and P removal is earmarked for each of the ISPA assisted municipal projects in BG.

Most of the Danube River Basin countries are in the process of introducing agricultural reforms in their national legislation (e.g. Germany has recently amended the Fertiliser Ordinance; Austria's "ÖPUL" Programme extends compensation payments for environmental friendly agricultural practice; the four recent EU member states (CZ, HU, SI, SK) will be in full compliance with the EU Nitrates Directive by 2008 – and RO by 2014), and the DRP played an important role in bringing nutrient reduction goals onto the agriculture policy agendas in the Danube River Basin. Although legislation is in place or under implementation, enforcement remains a challenge in both the accession and non-accession countries. Land use reform and agro-industrial improvements are not significantly represented in the investment project pipeline. It is critical to continue proactively engaging the Danube River Basin and Black Sea countries in agricultural reform.

For the EU Member States, fulfilment of the EU IPPC Directive is due in 2007, addressing major industrial processes and installations. The accession and non-accession countries have an opportunity to utilise the lessons learned in implementing BAT in the EU member states, and develop pragmatic BAT approaches.

A revised Land-Based Activities (LBA) protocol, developed by the BSERP with support from UNEP/GPA, was approved by the BSC in November 2004 and submitted for national consultations. The Commission also approved the Work Program to Enhance the Implementation of the Black Sea LBA Protocol Taking into Consideration the GPA Objectives. The 1999 Integrated Coastal Zone Management (ICZM) policies developed for the Black Sea is presently valid, a new Regional ICZM Strategy was approved by the BSC in November 2004, and completion of an operational ICZM plan is scheduled for Phase II of the BSERP. Furthermore, a new Fisheries Convention is under negotiation among the Black Sea countries.

Most projects in the World Bank IFNR portfolio support and plan to support policy, institutional and regulatory changes that promote nutrient reduction. Notably, support to transposition of the EU Nitrate Directive and the development of Codes of Good Agricultural Practices in the Agricultural Pollution Control (APC) projects.

Partnership Objective 2

2.2.1 Partnership Objective 2: Progress Summary

Country	**Indicator** 100% of participating countries initiate one or more investments in agricultural, municipal, land use or industrial sectors for nutrient discharge reduction, nutrient sink restoration, and prevention and remediation of hot spots of toxic substances, some with GEF assistance, by 2007 to accompany expected baseline investments.
Germany **DE**	Yes: municipal, industrial, wetlands restoration, agriculture reform
Austria **AT**	Yes: municipal, industrial, wetlands restoration, agriculture reform
Czech Republic **CZ**	Yes: municipal, wetlands restoration
Slovakia **SK**	Yes: municipal, industrial (incl. TEST), wetlands restoration
Hungary **HU**	Yes: municipal, industrial (incl. TEST), wetlands restoration
Slovenia **SI**	Yes: municipal, agro-industrial, wetlands restoration
Croatia **HR**	Yes: Industrial (TEST), municipal
Bosnia-Herzegovina **BA**	Yes: industrial, wetlands restoration
Serbia-Montenegro **CS**	Yes: industrial (WB), 2 municipal projects in advanced stages of DABLAS Task Force pipeline
Bulgaria **BG**	Yes: municipal, industrial (TEST), wetlands restoration
Romania **RO**	Yes: municipal, industrial (TEST)
Moldova **MD**	Agricultural pollution control (WB)
Ukraine **UA**	Yes: Municipal (one project, Kherson, in advanced stage of DABLAS Task Force pipeline; agro-industrial,
Russian Federation **RU**	Yes: municipal (9 projects under implementation, to be finalised in 2006), coastal/wetland protection, agricultural pollution control (WB)
Georgia **GE**	Yes: ICZM project GEF/WB Integrated Coastal Zone Management (Closing: June 30, 2006) GEF/WB Agricultural Research, Extension and Training (Closing : Dec 31, 2006)
Turkey **TR**	Yes: Anatolia Watershed Rehabilitation (WB), Samsun fertiliser factory nutrient reduction (WB)
Progress Estimate:	16 out of 16 countries: **100%**

2.2.2 Partnership Objective 2: Progress

Policy and legislative reforms have led to interventions in the basin aimed at transboundary nutrient reduction. Investments have been realized in the municipal sector (wastewater treatment), industrial (BAT and improved wastewater treatment), agro-industrial (improved waste handling, wastewater treatment), and wetland restoration (recovering the nutrient "sinks").

A total of over 200 fully financed investment projects have been completed and/or are under implementation in the Danube and Black Sea countries. In addition over 300 projects, with a total investment needed in excess of 4,400 M USD have been identified for future actions.

Table 1: Summary Overview on Projects – under implementation / fully financed

Timeframe	Details	No. of Projects	Total Investment MUSD	Nutrient Removal, t/a*	
				N	P
Completed by Dec 2003	Table 6	56	803	5,351	1013
Completed in 2004 and 2005	Table 7	35	475	4,552	836
Completed after 2005 (fully financed)	Table 8	106	1440	>10,013	>1,839
World Bank-GEF NRIF (implem, prep, pipeline)	Table 5	14	576	5,936	443
TOTAL		197	3,294	>25,852	>4,131

* Information on nutrient reduction from AT and DE not available.

Table 2: Summary of Planned Projects

Timeframe	Details	No. of Projects	Total Investment MUSD	Nutrient Removal, t/a	
				N	P
Planned	Table 9	>329	>4400	>50,000	>9000

Germany (DE) and Austria (AT)

Germany and Austria continue to make strides in developing their municipal wastewater infrastructure. In 2002, 94% of the German population was connected to public sewerage, and similarly in Austria, in 2001, sewerage coverage was approximately 86%. In the period from 2001-2003, municipal wastewater investments with respect to the measures listed in the ICPDR JAP

totalled 270 MEUR (11 projects). In Germany, 234 MEUR in municipal wastewater investments are under implementation, between 2001-2005, on projects indicated in the ICPDR JAP.

Considerable wetland restoration investments are also being realised in Germany and Austria. Approximately 62 MEUR will be spent in Germany on wetlands restoration, starting in 2001-2002, and extending until 2020. Four wetland restoration projects were completed in Austria by the end of 2003, and in total nearly 34 MEUR will be extended to wetlands projects there through 2009.

Industrial sector improvements have also been completed in Germany and Austria, and both countries are continuing agricultural reform efforts to reduce nutrient emissions. Control of over-fertilisation, particularly by N, remains a priority in Germany. Through Austria's "ÖPUL" Programme, a total of 614 MEUR have been extended through 2003 to farmers to support environmental benign agricultural practices.

In compliance with the EU water framework directive, Germany and Austria will continue to make water sector investments to achieve "good" status of all water resources by 2015.

Middle and Lower Danube Basin Countries

As part of the DABLAS Task Force 2004 assessment, a total of over 100 fully financed environmental improvement projects were identified in 11 Danube River Basin Countries (BA, BG, CS, CZ, HR, HU, MD, RO, SI, SK, UA). The DABLAS Task Force was set up by the Environment Ministers of the Danube-Black Sea Region together with the European Commission in 2001, with the aim to provide a platform for co-operation for the protection of water-related ecosystems in the Danube/Black Sea basin.

These investment projects represent a combined total investment of >1,500 MUSD and N and P reductions of >16,000 and >3,000 t/a, respectively:

Among these fully financed projects, 79 are situated within the 4 recent EU member countries: Czech Republic, Hungary, Slovakia, and Slovenia. There are 2 World Bank funded wetland restoration projects in Bulgaria, one EU-financed wetland restoration project and a 0.065 MUSD locally funded industrial sector investment in Bosnia-Herzegovina, and EU ISPA assisted municipal wastewater projects in Bulgaria (1) and Romania (7).

One additional fully-financed project, not included in the DABLAS 2004 assessment, is the 170 MEUR new municipal wastewater plant for Zagreb (HR), financed by the EBRD and KfW. Investments in Russia have also considerably increased in recent years. Nine municipal projects are due for completion in 2006 with the total investment of approximately 50M USD. In Ukraine 46 projects of a smaller size have been developed in 2001 – 2004 with a total investment of 14.3 M USD. All these projects are financed through national sources.

Two-thirds of the 228 MUSD investments realized by the 27 projects completed by December 2003 were provided by national sources. EU funding represented only 10% of the total investments through 2003, and the remaining 24% were from the WB (1%), EIB (4%), EBRD (12%), and other sources (7%).

EU financing is much more prevalent in the timeframes following 2003, indicating that (1) the majority of EU funding support is in the pipeline and (2) several of the EU-funded projects are large (e.g., Bucharest) and will not be completed for several more years. For the 22 municipal sector projects scheduled for completion in 2004 and 2005, EU funding supported 25% of the roughly 294 MUSD combined investment, 25% was provided by the EIB, and nearly 50% from national sources.

EBRD financing is often coupled with EU grant funding in the municipal sector. For example, as part of their Municipal Environmental Loan Facility (MELF), EBRD extended a loan of 13 MEUR to the municipality of Bacau in Romania, to complement a 39 MEUR grant through the EU ISPA programme.

The 13 industrial sector projects have, in all cases, been 100% financed through national (and/or own sources). The ca. 78 MUSD total investment in these industrial projects, include a 51.48 MUSD industrial wastewater improvement realized by the Hungarian Oil and Gas Company (MOL) in 2005. Design, finance, and construction of this MOL project were completely outsourced to a private company. Similarly, the 2 agro-industrial sector (pig farms) projects among the 91 fully financed investments were financed by their own sources. Wetland restoration projects, 11 in total, have typically drawn on external, international grant financing, including the 5.2 MUSD World Bank funded project in Bulgaria - this is the first wetlands restoration project under the Strategic Partnership.

Municipal sector projects account for the vast majority of the 91 fully financed projects. Firstly, and probably most importantly, data were more readily available for the municipal sector (public infrastructure). Also, transposition of the Urban Wastewater Treatment Directive (UWWTD) and consequent inception of investment projects seems to be on a faster track than realisation of other water quality legislation affecting the other sectors, such as the IPPC Directive (relevant for industrial and agro-industrial sectors), Nitrates Directive and CAP reform (applicable to land use reform and also agro-industrial operations).

Hungary has designated only a select number of water resources as sensitive, but nutrient removal is high on the agenda in the municipal sector there, with direct involvement by the Partnership. Financing the recently commissioned plant in the city of Dunaújváros was supported by a 2.58 MUSD WB grant, distinct from the IFNR. Through a WB-funded feasibility study, the North Pest plant in Budapest is preparing to upgrade to tertiary treatment.

A total of 354 projects were identified as part of the DABLAS Task Force 2004 assessment: 191 in the municipal, 77 industrial, 32 agro-industrial, 40 wetland restoration, and 14 land use projects. The combined total investment of these 354 projects is approx. 3883 MEUR, and the interventions represent an estimated nutrient reduction of 61,860 t/a N and 11,241 t/a P. As 91 of the 354 projects have secured total financing, many of the planned investments are in various phases of project development.

The 1999 ICPDR Danube River Joint Action Programme (JAP) reported 521 potential investment point and non-point pollution reduction projects in the basin. The difference between the number of JAP projects and the ones identified in the DABLAS 2004 assessment is attributed to a number of factors, e.g., DABLAS projects represent known/planned investments, whereas the JAP indicated "hot spots" where investment might be realized in the future.

The Danube Investment Support Facility (DISF) has been developed under auspices of the DABLAS Task Force, to provide financial support to investment projects, with an emphasis on nutrient reduction. There are presently 24 projects in the DABLAS pipeline (see Annex 1), some are at advanced stages of project development, in both Danube River Basin and Black Sea countries.

Black Sea Countries

There are 9 municipal sector investments under implementation in south Russia, totalling 49.6 MUSD. These projects are to be finalised in 2006. Each of other 5 Black Sea countries have municipal projects in various stages of development. In the Ukraine area of the Black Sea basin, 17

municipal projects are planned, one of which (Kherson) has is at the advanced stage of the DABLAS Task Force pipeline. The WB/GEF Investment Fund for Nutrient Reduction supports agricultural pollution control in RO, RU, and TR, an industrial sector project (fertiliser factory) in TR, and an ICZM project in UA. There are additional industrial sector projects, identified in the DABLAS 2002 assessment, in RO (6), GE (2), and TR (3). In addition, there is an EIB-funded Marmara Sea environmental management project in TR, and an internationally funded (WB, GEF, Dutch Gov.) ICZM project in GE.

The financing scheme and prioritisation of the investments in the Black Sea countries will be further worked on in Phase II of the BSERP. The BSC supported by the BSERP has recently added a project broker function to its programme, to help facilitate project financing and development.

The development of 'National Action Plan for Pollution from Land Based Sources in Turkey' has been supported by the Ministry of Environment and Forestry of Turkey (approximately USD 67K). The Ministry also reported a new monitoring programme for the Turkish waters of the Black Sea for 2004-2006 with financial support of about USD 746K. There are a number of other projects reported by the Ministry of Environment and Forestry of Turkey. These include:

Table 3: Projects reported by the Ministry of Environment and Forestry of Turkey

Project Title	**Financing**
Anatolian Watershed Rehabilitation (*)	GEF $ 7,000,000 WB $ 38,000,000
Marmara Sea Environmental Management	EIB € 2,650,000
The Implementation of Nitrate Directive (91/676/EC) in Turkey	EVD € 400,000

(*) together with Ministry of Agriculture

GEF/World Bank Investment Fund for Nutrient Reduction

The GEF/World Bank Investment Fund for Nutrient Reduction (IFNR) is an integral part of the Partnership, focusing on key projects in the region and is actively engaging other stakeholders, including national and local governments, EU assistance programmes[6], and IFIs in co-financing nutrient reduction centred interventions.

14 countries[7] of the Black Sea and Danube Basin are eligible for GEF funding under the Investment Fund. These are, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Georgia, Moldova, Romania, Russia, Serbia and Montenegro, Slovakia, Slovenia, Turkey and Ukraine. The IF portfolio includes 14 projects in 10 of these countries. Six of these projects are under implementation and the rest at various stages of preparation. Table 4 provides a list of these projects together with information on the status of project processing, GEF grant funding and co-financing, and estimated N and P reduction.

The portfolio is well diversified among eligible areas of investment that were specified in the Partnership Framework Brief. Specifically, there are seven Agricultural Pollution Control (APC) Projects (in Croatia, Moldova, Romania, Russia Krasnodar, Serbia, Turkey and Ukraine); one

[6] E.g. PHARE, ISPA, CARDS, TACIS, CADSES

[7] Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Georgia, Hungary, Moldova, Romania, Russia, Serbia and Montenegro, Slovakia, Slovenia, Turkey and Ukraine

wetland restoration project (in Bulgaria), one ICZM project (in Ukraine), and five municipal wastewater treatment projects (in Hungary, Bosnia, Moldova, Russia Rostov and Ukraine). It should also be noted that some of the projects include more than one eligible element. For example, the Moldova APC Project and the Serbia Enterprise Pollution Reduction Project also support investments for reducing nutrient discharges from agro-industrial enterprises, such as slaughterhouses and meat-processing facilities, in addition to proper farm nutrient management. Furthermore, the Hungary Nutrient Reduction Project will support the restoration of wetlands in the Danube-Drava National Park Gernenc of the Beda-Karapancsa Region. This reflects the IF's flexible nature that allows for tailoring project interventions to each country's specific conditions with respect to nutrient pollution.

Other WB Investments in the Black Sea / Danube Basin. The World Bank has carried out a variety of investment operations which are not formally in the framework of the Partnership IFNR, either because they became effective before the beginning of the Partnership or they were submitted to the GEF under an operational program other than International Waters. However they either were fully geared towards protection of wetlands and biodiversity in the Black Sea/Danube Basin or include components that target agricultural pollution control. Examples include the Romania Danube Delta Biodiversity Project, the Ukraine Danube Delta Biodiversity Project, the Ukraine Biodiversity Conservation in the Azov-Black Sea Corridor Project and the Georgia Agricultural Research, Extension and Training Project, the Georgia Integrated Coastal Zone Management Project and the Turkey Biodiversity and Natural Resource Management Project.

Table 4: Overview World Bank Investment Fund for Nutrient Reduction Portfolio for Black Sea/Danube (as of June 2005)

Project Title	Status	Funding (US$ million)		Co-financing ratio (GEF:Other)	Estimated N+P Reduction (tons/yr) (***)	
		GEF Grant	Co-Financing (*)		N	P
Under Implementation						
Romania Agricultural Pollution Control	WB Board Approval: 12/13/01	5.15	5.65	1:1	200	25
Bulgaria Wetlands Restoration and Nutrient Reduction	WB Board Approval: 06/13/2002	7.50	5.78	1:1	218-813	23.4-37.4
Moldova Agricultural Pollution Control	WB Board Approval: 02/26/2004	4.95	5.79	1:1	280	70
Turkey Watershed Rehabilitation and APC	WB Board Approval: 06/1/2004	7.00	38.00	1:5	200	25
Serbia Danube River Enterprise Pollution Reduction	WB Board Approval: 05/12/2005	9.02	13.12	1:1	430	70
Bosnia Water Quality Protection	WB Board Approval: 6/7/2005	4.25	11.4	1:3	31	5
	Sub-Total	***37.87***	***79.74***	***1:2***	1,359-1,954	218-232
Under Preparation						
Hungary Nutrient Reduction	Expected WB Board Approval: 12/08/2005	12.50	80.00	1:5	4,108	181
Russia Rostov Reduction of Nutrient Discharges and Methane Emissions	Expected WB Board Approval: 2/7/2006	4.00	52.7	1:13	469	44
Russia Krasnodar Agricultural Pollution Control	Expected WB Board Approval: 9/5/2006	5.00	7.00	1:1	tbd	tbd
	Sub-total	***21.50***	***139.7***	***1:6***	***4,577+***	***225+***

Project Title	Status	Funding (US$ million)		Co-financing ratio (GEF:Other)	Estimated N+P Reduction (tons/yr) (***)	
		GEF Grant	Co-Financing (*)		N	P
Pre-Pipeline						
Croatia Agricultural Pollution Control	Expected WB Board Approval: 9/2006	5.00	30.00	1:6	tbd	tbd
Moldova Environmental Infrastructure	Expected WB Board Approval: 9/2006	3.00	10.00	1:3	tbd	tbd
Ukraine Odessa Wastewater Treatment	Expected WB Board Approval: 6/2006	6.90	150.00	1:22	tbd	tbd
Ukraine Integrated Coastal Zone Management	Expected WB Board Approval: 12/2006	4.00	8.00	1:2	tbd	tbd
Ukraine Rural Development (APC)	Expected WB Board Approval: 9/2006	5.00	75.00	1:15	tbd	tbd
	Sub-total	**23.9**	**273.0**	**1:11**	**tbd**	**tbd**
	Total	***83.27 (**)***	***492.7***	***1:6***	***5,936+***	***443+***

(*) Co-financing includes parallel financing from World Bank and/or other donors which is in support of the GEF project and is part of the baseline investments but may not be included in the financing plan of the project approved by the World Bank Board. This figure is expected to increase during project implementation to reflect any additional financing leveraged by the GEF interventions over the life of the project.

(**) This figure represents approximately 20% more than the overall resource envelope approved by GEF Council for the Investment Fund ($ 70 million). Since the IF operates on a first-come first-serve basis but grants are made available only after a project is approved by the World Bank Board (approximately 18-24 months after they enter the IF pipeline), a 20% pipeline over-program covers for those projects that may be dropped during project preparation.

(***) The reduction estimates relate strictly to investments made during the life time of the project which serve mainly the purpose of demonstration and awareness raising. In the years following the implementation of the project, it is expected that these practices will be replicated widely and hence the nutrient load reduction will be significantly higher. .

Table 5: Projects completed by December 2003

Country/Location	Project Title	Type of Project	Total Investment	Total Investment	Source of Investment (MUSD)						Achieved N Reduction	Achieved P Reduction
			MEUR	MUSD	WB	EU	Nat'l	EIB	ERBD	Other	t/a	t/a
AT/11 projects	Extend and upgrade WWTPs	MUN	270.00	351.00	0.00	0.00	351.00	0.00	0.00	0.00	per EU UWWT Directive	
CZ/Hodonin	Extension and Upgrade of WWTP	MUN	4.46	5.80	0.00	0.00	3.46	2.34	0.00	0.00	139	11
CZ/Prostejov	Extension and Upgrade of WWTP	MUN	13.30	17.29	0.00	0.00	13.65	3.64	0.00	0.00	222	18
CZ/Prerov	Extension and Upgrade of WWTP	MUN	14.48	18.82	0.00	0.00	16.48	2.34	0.00	0.00	202	16
CZ/Vyskov	Extension and Upgrade of WWTP	MUN	4.05	5.27	0.00	0.00	2.80	2.47	0.00	0.00	64	5
CZ/Hranice	Extension and Upgrade of WWTP	MUN	4.30	5.59	0.00	0.00	3.90	1.69	0.00	0.00	41	3
DE/Leutkirch	Upgrade of WWTP	MUN	9.50	12.35	0.00	0.00	12.35	0.00	0.00	0.00	per EU UWWT Directive	
DE/ZV Starnberger See	Upgrade of WWTP	MUN	25.00	32.50	0.00	0.00	32.50	0.00	0.00	0.00	per EU UWWT Directive	
DE/ZV Chiemsee	Upgrade of WWTP	MUN	12.00	15.60	0.00	0.00	15.60	0.00	0.00	0.00	per EU UWWT Directive	
HU/Budapest S Pest	Upgrade of WWTP	MUN	26.39	34.31	0.00	0.00	34.31	0.00	0.00	0.00	803	257
HU/Szolnok	New WWTP	MUN	6.25	8.13	0.00	2.21	5.92	0.00	0.00	0.00	307	88
HU/Szekesfehervar	Extension and Upgrade of WWTP	MUN	4.89	6.35	0.00	1.89	4.47	0.00	0.00	0.00	562	52
HU/Tatabanya	Upgrade of WWTP	MUN	0.39	0.51	0.00	0.00	0.51	0.00	0.00	0.00	207	17
HU/Dunaujvaros	Upgrade of WWTP	MUN	9.01	11.71	2.58	1.63	7.49	0.00	0.00	0.00	137	11
HU/Szekszard	Extension and Upgrade of WWTP	MUN	3.15	4.10	0.00	0.94	3.16	0.00	0.00	0.00	255	81
HU/Salgotarjan	Extension and Upgrade of WWTP	MUN	3.75	4.88	0.00	0.00	4.88	0.00	0.00	0.00	140	44
HU/Baja	Extension and Upgrade of WWTP	MUN	3.92	5.09	0.00	0.00	5.09	0.00	0.00	0.00	222	69
SI/Maribor	New WWTP	MUN	43.00	55.90	0.00	0.00	0.00	0.00	35.10	20.80	485	139
SI/Celje	New WWTP	MUN	20.00	26.00	0.00	13.00	13.00	0.00	0.00	0.00	217	62
SI/Kranjska Gora	New WWTP	MUN	10.00	13.00	0.00	6.50	6.50	0.00	0.00	0.00	23	7

Country/Location	Project Title	Type of Project	Total Investment	Total Investment	Source of Investment (MUSD)						Achieved N Reduction	Achieved P Reduction
			MEUR	MUSD	WB	EU	Nat'l	EIB	ERBD	Other	t/a	t/a
SK/Kosice	Extension and Upgrade of WWTP	MUN	21.10	27.43	0.00	0.00	27.43	0.00	0.00	0.00	803	80
SK/Roznava	Extension and Upgrade of WWTP	MUN	2.55	3.32	0.00	0.00	3.32	0.00	0.00	0.00	37	3
SK/Banska Stiavnica	New WWTP	MUN	10.78	14.02	0.00	0.00	14.02	0.00	0.00	0.00	49	14
AT/MoDo Hallein	Biological WWTP; pulp & paper ind.	IND	33.00	42.90	0.00	0.00	42.90	0.00	0.00	0.00	0	0
AT/Steirische TKV	Extension of WWTP	IND	2.10	2.73	0.00	0.00	2.73	0.00	0.00	0.00	0	0
AT/Salinen Austria	Sludge treatment; salt settling	IND	8.20	10.66	0.00	0.00	10.66	0.00	0.00	0.00	0	0
AT/Mayr-Melnhof Karton	WWTP	IND	5.50	7.15	0.00	0.00	7.15	0.00	0.00	0.00	0	0
AT/Rauch Fruchtsafte	WWTP	IND	2.40	3.12	0.00	0.00	3.12	0.00	0.00	0.00	0	0
AT/Schlempetrocknungs	WWTP	IND	2.70	3.51	0.00	0.00	3.51	0.00	0.00	0.00	0	0
AT/AMI Agrolinz Melamine	WWTP (stripper for NH4 prod.)	IND	1.70	2.21	0.00	0.00	2.21	0.00	0.00	0.00	0	0
AT/Burgenlandische TKV	Biological WWTP	IND	1.70	2.21	0.00	0.00	2.21	0.00	0.00	0.00	0	0
DE/Esso Ingolstadt	Upgrade of WWTP	IND	0.60	0.78	0.00	0.00	0.78	0.00	0.00	0.00	20	0
DE/Nitrochemie Aschau	Upgrade of WWTP	IND	7.50	9.75	0.00	0.00	9.75	0.00	0.00	0.00	55	0
SK/Strazske	Istrochem, upgrade WWT	IND	0.50	0.65	0.00	0.00	0.65	0.00	0.00	0.00	0	0
SK/Novaky	NCHZ, upgrade WWT	IND	1.10	1.43	0.00	0.00	1.43	0.00	0.00	0.00	0	0
SK/Kosice	US Steel, upgrade WWT	IND	1.40	1.82	0.00	0.00	1.82	0.00	0.00	0.00	0	0
SK/Sala	DFA, technology modification	IND	9.00	11.70	0.00	0.00	11.70	0.00	0.00	0.00	0	0
SI/Beltinci	Pig Farm, new WWTP, BAT	AGR-IND	3.50	4.55	0.00	0.00	4.55	0.00	0.00	0.00	0.8	0.1
AT/Donauauen Park	Restoration of alluvial flood plains	Wetlands	2.80	3.64	0.00	yes	yes	0.00	0.00	0.00	150	15
AT/Morava	Reactivating former flow channels	Wetlands	0.27	0.35	0.00	yes	yes	0.00	0.00	0.00	140	14

Country/Location	Project Title	Type of Project	Total Investment	Total Investment	Source of Investment (MUSD)						Achieved N Reduction	Achieved P Reduction
			MEUR	MUSD	WB	EU	Nat'l	EIB	ERBD	Other	t/a	t/a
AT/Drava	Connecting backwaters	Wetlands	5.00	6.50	0.00	yes	yes	0.00	0.00	0.00	10	1
AT/Mur	Floodplain improvements	Wetlands	0.90	1.17	0.00	yes	yes	0.00	0.00	0.00	20	2
DE/Schwarzach	Wetlands restoration	Wetlands	5.00	6.50	0.00	0.00	6.50	0.00	0.00	0.00	40	4
SI/Triglav Nat Park	Peat bogs, management plan	Wetlands	0.47	0.61	0.00	0.61	0.00	0.00	0.00	0.00	0	0
SK/Zelienka	Restoration of Peatlands	Wetlands	0.005	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0	0
SK/Morava River	Natura 2000 management plan	Wetlands	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.03	0	0
Totals	**56 Projects**		**347.63**	**802.95**	2.58	26.77	693.49	12.48	35.10	20.83	**5,351**	**1,013**

Source of data: Dablas 2004 assessment; ICPDR 2004 JAP report.

Table 6: Projects completed (scheduled) in 2004 and 2005

Country/Location	Project Title	Type of Project	Total Investment	Total Investment	Source of Investment (MUSD)						Achieved N Reduction	Achieved P Reduction
			MEUR	MUSD	WB	EU	Nat'l	EIB	ERBD	Other	t/a	t/a
CZ/Brno	Extension and Upgrade of WWTP	MUN	66.50	86.45	0.00	0.00	23.40	63.05	0.00	0.00	949	80
CZ/Uherske Hradiste	Extension and Upgrade of WWTP	MUN	5.80	7.54	0.00	0.00	3.90	3.64	0.00	0.00	153	49
CZ/Breclav	Extension and Upgrade of WWTP	MUN	3.30	4.29	0.00	2.73	1.56	0.00	0.00	0.00	55	4
CZ/Trebic	Extension and Upgrade of WWTP	MUN	6.62	8.61	0.00	5.17	3.45	0.00	0.00	0.00	117	9
CZ/Jihlava	Extension and Upgrade of WWTP	MUN	15.39	20.01	0.00	12.51	7.50	0.00	0.00	0.00	185	15
CZ/Vsetin	Extension and Upgrade of WWTP	MUN	2.90	3.77	0.00	0.00	2.08	1.69	0.00	0.00	113	10
CZ/Kromeriz	Extension and Upgrade of WWTP	MUN	5.80	7.54	0.00	0.00	4.16	3.38	0.00	0.00	64	5
CZ/Zabreh na Morave	Extension and Upgrade of WWTP	MUN	5.10	6.63	0.00	0.00	3.51	3.12	0.00	0.00	117	10
CZ/Unicov	Extension and Upgrade of WWTP	MUN	4.04	5.25	0.00	0.00	2.64	2.61	0.00	0.00	25	2
CZ/Bystrice Nad	Extension and Upgrade of WWTP	MUN	3.93	5.11	0.00	0.00	5.11	0.00	0.00	0.00	34	3
DE/München I	Upgrade of WWTP	MUN	86.00	111.80	0.00	0.00	111.80	0.00	0.00	0.00	per EU UWWT Directive	
HU/Veszprem	Extension and Upgrade of WWTP	MUN	8.21	10.68	0.00	0.00	10.68	0.00	0.00	0.00	187	16
SI/Ljubljana	New WWTP	MUN	30.00	39.00	0.00	19.50	19.50	0.00	0.00	0.00	920	263
SI/Rogaska Slatina	New WWTP	MUN	13.20	17.16	0.00	0.00	17.16	0.00	0.00	0.00	31	9
SI/Lendava	New WWTP	MUN	11.20	14.56	0.00	8.06	6.50	0.00	0.00	0.00	115	33
SI/Slovenj Gradec	New WWTP	MUN	6.00	7.80	0.00	7.80	0.00	0.00	0.00	0.00	52	15
SI/Dravograd	New WWTP	MUN	4.80	6.24	1.82	4.42	0.00	0.00	0.00	0.00	23	7
SK/Nitra	Extension and Upgrade of WWTP	MUN	10.35	13.46	0.00	6.73	6.73	0.00	0.00	0.00	413	129
SK/Ruzomberok	Extension and Upgrade of WWTP	MUN	1.67	2.17	0.00	0.00	0.00	0.00	0.00	2.17	75	15

Country/Location	Project Title	Type of Project	Total Investment	Total Investment	Source of Investment (MUSD)						Achieved N Reduction	Achieved P Reduction
			MEUR	MUSD	WB	EU	Nat'l	EIB	ERBD	Other	t/a	t/a
SK/Topolcany	Extension and Upgrade of WWTP	MUN	1.34	1.74	0.00	0.00	1.74	0.00	0.00	0.00	86	26
SK/Trencin, R side	New WWTP	MUN	8.09	10.51	0.00	5.26	5.26	0.00	0.00	0.00	77	22
SK/Komarno	Extension and Upgrade of WWTP	MUN	8.84	11.49	0.00	5.74	5.74	0.00	0.00	0.00	85	27
SK/Cadca	Extension and Upgrade of WWTP	MUN	6.18	8.03	0.00	0.00	6.99	0.00	0.00	1.04	139	42
BA/Sarajeva	Bitumenka, reconstruct WWT	IND	0.05	0.07	0.00	0.00	0.07	0.00	0.00	0.00	0	0
HU/Szazhalombatta	MOL, new WWT	IND	39.60	51.48	0.00	0.00	51.48	0.00	0.00	0.00	92	0
HU/Dunaujvaros	Dunapack, ext and upg WWT	IND	1.40	1.82	0.00	0.00	1.82	0.00	0.00	0.00	0	0
SK/Novaky	NCHZ, reconstruct WWT	IND	1.59	2.07	0.00	0.00	2.07	0.00	0.00	0.00	0	0
SK/Sturovo	Kappa Sturovo, construct WWT	IND	3.20	4.16	0.00	0.00	4.16	0.00	0.00	0.00	0	0
SK/Sala	Duslo Sala, upg WWT	IND	2.00	2.60	0.00	0.00	2.60	0.00	0.00	0.00	0	0
BA/Banja Luka	Bardaca, establish protection areas	Wetlands	0.51	0.66	0.00	0.66	0.00	0.00	0.00	0.00	70	7
DE/Mindel	Wetlands Restoration	Wetlands	1.00	1.30	0.00	0.00	1.30	0.00	0.00	0.00	20	2
HU/Baja	Gemenc, wetlands restoration	Wetlands	0.18	0.23	0.00	0.00	0.00	0.00	0.00	0.23	5	1
HU/S. Hungary Baja	Ven-Duna, wetlands restoration	Wetlands	0.32	0.42	0.00	0.00	0.42	0.00	0.00	0.00	300	30
SK/Morava flat	Elaborate management plan	Wetlands	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.03	0	0
SK/Morava River	Pilot wetlands restoration (GEF)	Wetlands	0.25	0.33	0.00	0.00	0.00	0.00	0.00	0.33	50	5
Totals	**35 Projects**		**365.37**	**474.98**	1.82	78.57	313.32	77.49	0.00	3.80	**4,552**	**836**

Source of data: Dablas 2004 assessment; ICPDR 2004 JAP report.

Table 7: Projects underway with 100% funding secured

Country	No. of Projects					Total Investment	Total Investment	Anticipated N Reduction	Anticipated P Reduction
	Municipal	Industrial	Agro-Ind.	Wetlands	Land Use	MEUR	MUSD	t/a	t/a
Germany **DE**	1	0	0	11	0	108.3	140.8	735	73
Austria **AT**	0	0	0	6	0	24.9	32.3	1,952	195
Czech Republic **CZ**	2	0	0	0	0	9.4	12.2	129	13
Slovakia **SK**	6	3	0	1	0	112.3	146.0	1,791	527
Hungary **HU**	4	0	0	0	0	205.2	266.8	2l585	395
Slovenia **SI**	4	0	1	0	0	42.3	55.0	222	34
Croatia **HR**	1	0	0	0	0	170.0	221.0	not available	not available
Bosnia-Herzegovina **BA**	0	0	0	0	0	0.0	0.0	0	0
Serbia-Montenegro **CS**	0	0	0	0	0	0.0	0.0	0	0
Bulgaria **BG** - Danube	1	0	0	2	0	20.1	26.1	497	98
Bulgaria **BG** - Black Sea	0	0	0	0	0	0.0	0.0	0	0
Romania **RO** - Danube	7	0	0	0	0	369.1	479.8	2,102	504
Romania **RO** - Black Sea	0	0	0	0	0	0.0	0.0	0	0
Moldova **MD**	0	0	0	0	0	0.0	0.0	0	0
Ukraine **UA** - Danube	0	0	0	0	0	0.0	0.0	0	0
Ukraine **UA** - Black Sea	37	6	1	2	0	10.7	14.3	0	0
Russian Federation **RU**	9	0	0	1	0	38.2	49.6	not available	not available
Georgia **GE**	0	0	0	0	0	0	0	0	0
Turkey **TR**	0	0	0	0	0	0	0	0	0
Totals	72	9	2	23	0	**1,110.4**	**1,443.9**	**>10,013**	**>1,839**

Table 8: Projects Planned

Country	No. of Projects						Total Investment MEUR	Total Investment MUSD	Anticipated N Reduction t/a	Anticipated P Reduction t/a
	Municipal	Industrial	Agro-Ind.	Wetlands	Land Use	ICZM				
Germany **DE**	Further investments planned in order to meet "good" water status for all waters by 2015.									
Austria **AT**	Further investments planned in order to meet "good" water status for all waters by 2015.									
Czech Republic **CZ**	9	7	3	6	0	na	114.2	148.5	1,349	208
Slovakia **SK**	5	6	0	1	0	na	63.2	82.2	1,066	310
Hungary **HU**	4	1	0	4	0	na	717.2	932.4	10,118	1,593
Slovenia **SI**	11	9	1	2	0	na	181.5	235.9	779	154
Croatia **HR**	15	4	0	0	0	na	221.5	288.0	3,062	380
Bosnia-Herzegovina **BA**	7	19	1	2	0	na	209.7	272.6	6,827	749
Serbia-Montenegro **CS**	5	0	1	0	0	na	547.7	712.0	2,170	434
Bulgaria **BG** - Danube	32	8	5	0	0	0	256.8	333.8	5,811	1,974
Bulgaria **BG** - Black Sea	9	0	0	0	0	0	92.4	120.1	417	461
Romania **RO** - Danube	11	5	11	4	1	0	224.1	291.3	3,745	447
Romania **RO** - Black Sea	2	6	0	0	0	0	25.8	33.6	3,167	4
Moldova **MD**	15	5	7	5	12	na	97.7	127.0	5,556	617
Ukraine **UA** - Danube	13	0	2	5	3	0	74.2	96.5	2,985	875
Ukraine **UA** - Black Sea	17	0	0	0	0	1	53.8	69.9	1,118	564
Russian Federation **RU**	0	0	1	0	1	0	26.0	33.9	not available	not available
Georgia **GE**	4	2	0	0	0	1	125.8	163.6	1,529	265
Turkey **TR**	11	3	0	0	3	1	362.8	471.7	not available	not available
Totals	170	75	32	29	20	3	**3,394.5**	**4,412.8**	**>49,699**	**>9,035**

2.3 Partnership Objective 3

Payments of contributions by all contracting parties to the Danube and Istanbul Conventions made for 2000 and 2001 and pledged for the period beyond project duration. Nutrient control, toxic substances reduction and ecosystem indicators assessing processes in place, stress reduction, and environmental status, are developed, harmonized and adopted for reporting to Secretariat databases by 2006

2.3.1 Partnership Objective 3: Progress Summary

Partner	**Indicator** Capacity of the Danube and Black Sea Convention Secretariats is increased through, sustainable funding, and developing of international waters process, stress reduction and environmental status indicators adopted through Convention processes..
Danube and Black Sea	**Process Indicators:** ICPDR Heads of Delegation meetings, BSC meetings, JTWG meetings, EU Directive implementation, development of Public Participation strategies. **Stress Reduction Indicators:** Approximately 200 projects completed or fully financed with total investments exceeding 3 billion USD leading to reduction of nutrients (approximately 25 kt/yr and 4.1 kt/yr for nitrogen and phosphorus respectively). **Environmental Status Indicators:** The NW shelf of the Black Sea showing signs of recovery (see later section) **JTWG:** Development and adoption of 11 environmental indicators for monitoring the impact of the Danube River on the Black Sea
Danube River	Strategy for contribution from member countries prepared for period 2005-2010, except for Bosnia-Herzegovina, which only recently became a full member of the ICPDR. Monitoring stations and protocol (TNMN) in place, emission database (EMIS) in place. WFD Roof Report submitted on-time to the European Commission. Further development of these ICPDR activities are planned in Phase II of UNDP/GEF DRP.
Black Sea	Contribution for the BSC is outstanding from Georgia. Monitoring system and database development/upgrade in support of the BSC by the UNDP/GEF BSERP has been provided in 2002 –2004 and is planned for Phase II.
Progress Estimate:	Danube River: 75%; Black Sea: 30%; **Overall: 55%**

2.3.2 Partnership Objective 3: Progress

Danube River:

The International Commission for the Protection of the Danube River (ICPDR) is the body established under the Convention on Co-operation for the Protection and Sustainable Use of the Danube River (Danube River Protection Convention) The ICPDR contracting parties are: EU, Germany, Austria, Czech Republic, Slovakia, Hungary, Slovenia, Croatia, Bulgaria, Romania, Moldova, Ukraine, and Serbia-Montenegro. Formal ratification procedures of the Danube River Protection Convention for Bosnia-Herzegovina were completed in December 2004.

As of April, the ICPDR received payment for year 2004 from all contracting parties, except Ukraine for 2003 and 2004.

The trans-national water-quality monitoring network (TNMN) and protocol have been developed, as well as the emissions inventory (EMIS database). Further development of the TNMN system, the accident prevention protocols and EMIS database are planned through continued activities of the Laboratory and Information Management Expert Group (MLIM EG), the Accident Prevention and Control Expert Group (APC EG) and Emission Expert Group (EMIS EG) respectively, at the ICPDR during execution of Phase II of the DRP. The DRP will continue to support these activities under Phase II.

The Danube-Black Sea Joint Technical Working Group (JTWG), formed to facilitate implementation of the Memorandum of Understanding between the BSC and ICPDR, has agreed upon ecological status indicators and reporting formats, taking into account implementation of the EU WFD in coastal waters.

A component of Phase II of the DRP is further strengthening of the Inter-Ministerial Coordination Mechanisms, to ensure efficient information transfer among the broad group of governmental stakeholders involved in policies, legislation, and investments in nutrient reduction and pollution control.

Black Sea:

The Black Sea Commission (BSC) is the body established under the Convention on the Protection of the Black Sea Against Pollution. The BSC contracting parties are: Bulgaria, Romania, Ukraine, Russian Federation, Georgia, and Turkey. Each of the Black Sea countries has a legal and institutional framework sufficient to enable its full participation, and has expressed its written commitment to make its own infrastructure and resources available for project implementation.

The countries have agreed to support the Secretariat of the Black Sea Commission with cash and in kind contributions. Georgia has yet to fulfil their financial contributions to the BSC. A strategy for securing contribution for the BSC is under development.

An Advisory Board composed of selected scientists both international and from the Black Sea riparian countries was established by the BSERP to prepare and execute the research program within activities of the International Study Group (ISG). Phase II of the BSERP includes further research activities, development of a comprehensive monitoring program based on relevant chemical and biological indicators, and establishment of an emissions/state database for point and non-point pollution sources within the coastal zone; these represent significant progress towards establishment of both stress reduction and environmental status indicators.

2.4 Partnership Objective 4

Country commitments to a cap on nutrient releases to the Black Sea at 1997 levels and agreed targets for toxic substances reduction for the interim, and possible future reductions or revisions using an adaptive management approach after 2004 are formalized into specific nutrients control and toxic substances discharge protocol(s) or Annex(s) to both Conventions

2.4.1 Partnership Objective 4: Progress Summary

Partner	**Indicator** Countries adopt protocols or annexes to their two conventions and/or develop legally binding "Action Plans" regarding nutrients and toxic substances reduction commitments as part of their obligations under the GPA for Land-Based Sources of pollution to the Danube/Black Sea basin by 2006 towards agreed goals to restore the Sea to 1960's environmental status. For the Danube, such a commitment will be contained in the revised Nutrient Reduction Plans (coherent with the ICPDR Joint Action Programme) and developed in accord with the application of the relevant EU Water Directives.
Danube River	Execution of Memorandum of Understanding between BSC and ICPDR. EU WFD Roof Report approved during Dec 2004 ICPDR Ministers Meeting. Demonstrating commitments from all DRB countries to implement the Directive. Implementation of the Directive will have a significant impact on the reduction of nutrients and toxic substances entering the DRB contributing to the overall Partnership's objectives. ICPDR's JAP developed including nutrient reduction plans EU WFD Roof Report submitted to European Commission on time.
Black Sea	Execution of Memorandum of Understanding between BSC and ICPDR. Revised protocol on reducing pollution from Land Based Activities (LBA) under consideration by BSC and riparian countries. ICZM policies and strategies for the Black Sea coastal states (1999) is valid; operational level logistical plan part of Phase II. Work Program to Enhance the Implementation of the Black Sea LBA Protocol Taking into Consideration the GPA Objectives under implementation
Progress Estimate:	**50-75%**

2.4.2 Partnership Objective 4: Progress

The November 2001 Memorandum of Understanding between the BSC and ICPDR constitutes a cornerstone in propagating nutrient reduction protocol among the participating countries.

Approval of the EU WFD Roof Report at the Dec 2004 Ministers Meeting confirms the commitment from the 13 Danube River Basin countries in adopting binding actions in reducing pollution to the Danube River in support of the ICPDR's JAP.

The BSERP has developed a protocol on reducing pollution from Land Based Activities (LBA) in the Black Sea coastal states. The LBA protocol is under consideration by the BSC members.

Integrated Coastal Zone Management (ICZM) policies for the Black Sea were developed in 1999 with GEF support. Based on this effort in 2003-2004 a Regional Strategy on ICZM for the Black Sea Region was developed with support from the EU TACIS program. A draft of the Black Sea ICZM Strategy has been approved by the BSC in November 2004. The ICZM policies are valid, and an operational plan is a part of Phase II of the BSERP for 2004-2007.

Additionally, a new Fisheries Convention (or a Legally Binding Document/Protocol to the existing Convention) is being negotiated between all six Black Sea countries.

Most of the activities included in the Second Phase of the GEF-BSERP coincide with the Work Programme to Strengthen the Implementation of the Black Sea LBA Protocol Taking into Consideration the GPA Objectives (BS LBA WP) prepared during the First Phase of the GEF-BSERP under UNEP's stewardship. Basically, the Second Phase of the GEF-BSERP represents to a great extent the GPA Programme for the Black Sea[8]

[8] UNEP-An analysis prepared by the GEF-BSERP PIU during the first phase indicated that there are only four activities that are in the BS LBA WP but are not in the BSERP (EIA, study on erosion, regional workshop on wastewater and national reports for the Second Inter-Governmental Meeting of the GPA to be held in China in October 2006). Two activities are only partially covered and the rest of 22 activities are basically covering the same ground although not exactly in the same way. This analysis indicates that the two programmes are highly complementary.

2.5 Partnership Objective 5

Implementing Agencies, the European Union, other funding partners and countries formalize nutrient and toxic substances reduction commitments into IA, EU and partner regular programs with countries.

2.5.1 Partnership Objective 5: Progress Summary

Funding Partner	**Indicator** Regular programs of IAs and EC support country nutrient and/or toxic substances reduction commitments during 2001-2007 as part of expected baseline activities and incorporate them into CCF (UNDP), GPA Office Support (UNEP), CAS (WB), and EU (Accession Support) by 2005.
WB	Black Sea / Danube pollution issues have been integrated in country assistance strategies (CAS) that lay the basis for World Bank lending programs in client countries. Since 2000, ten out of twelve new CAS that were prepared in the Black Sea Danube countries included a discussion of projects to be implemented under the WB GEF Investment Fund.
UNDP	UNDP mainstreaming and promoting replication of Black Sea and Danube programmes through Bratislava Regional Service Centre; core UNDP funding provided for GEF IW Regional Coordination post; several UNDP Country Offices are supporting integrated water resources management, river basin management, and EU WFD approximation processes in a number of Danube/Black Sea basin programme countries as well as in countries outside the Danube/Black Sea basin addressing similar water resources management challenges..
UNEP	UNEP/GPA is providing policy advice to the Black Sea Commission and the GEF-BSERP PIU for the implementation of the Black Sea Commission's programme for 2005 as it pertains to the GPA and Black Sea concerns dealing with nutrients, persistent organic pollutants, radioactive substances, heavy metals and other toxic substances.
EC	DABLAS Task Force (DRB and BS) established with the objective of co-ordinating and prioritising investment needs within the basin. EU ISPA and EBRD for municipal sector, other EU programmes.

2.5.2 Partnership Objective 5: Progress

UNDP

UNDP is mainstreaming and promoting replication of Black Sea and Danube programmes through its Bratislava Regional Service Centre; several UNDP Country Offices are supporting integrated water resources management, river basin management, and EU WFD approximation processes in a number of Danube/Black Sea basin programme countries as well as in countries outside the Danube/Black Sea basin addressing similar water resources management challenges. UNDP's Regional Bureau for Europe and the CIS (RBEC) is presently developing a new strategic approach

for its water governance practice in Europe/CIS, building on UNDP's extensive experience through the GEF with promoting transboundary waters management in this region. The strategy will include knowledge management, community and capacity development, regional and national-level programme development, partnership development and resource mobilization. As part of this mainstreaming, RBEC has committed to fund the UNDP-GEF Regional Technical Advisor (RTA) for International Waters & Land Degradation, and has also mobilized external resources (LEAD) for a Water Governance Advisor who will support development and oversight of GEF IW portfolio in the region. UNDP Wetlands projects in the Danube Region are presented below in Table 10 (p.45).

UNDP is defining its work on the country-level through Country Programmes Documents (CPD), which are being reviewed every 4-6 years. National Human Development Reports (NHDRs) also play an important role in policy and programme development at the Country level. In the Black Sea and Danube riparian countries that are eligible for UNDP support, UNDP has taken a number of steps towards mainstreaming the GEF Strategic Partnership and its objective to reduce transboundary water pollution in the Danube/Black Sea basin:

Bulgaria: The National Human Development Report 2003 highlights activities towards Sustainable Development of Rural Areas (SRD). The Bulgarian CPD refers in the context of Energy & Environment Conservation to using GEF-projects to a) comply with international commitments and b) to develop pilot and "field models" for replication.

Bosnia/Herzegovina: B/H has engaged into a "Water for Srebrenica" project, aiming at providing a long-term solution for the constant supply of potable water in Srebrenica town.

Ukraine: In the CPD, UNDP's role is highlighted in supporting the government to comply with international commitments, and in "fostering [of] public dialogue on environment issues" and the facilitation and "integration of sustainable development concepts in national policies and planning initiatives". The CPD stresses UNDP's support to projects undertaken by the Black Sea Commission and the Danube Commission, as well as the work around the Strategic Action Programme for the Environmental Rehabilitation of the Dnipro River Basin.

Russian Federation: UNDP is stating in the CPD its support to the Russian government in view of the implementation of the Stockholm Convention on POPs, as well as other international conventions such as the Bucharest Convention.

World Bank

World Bank lending, including GEF grant-funded operations, in a country are based on country assistance strategies (CAS) that are prepared every three years in partnership with the government and the Bank and in consultation with national stakeholders. CAS's lay out the country's priorities for investment and policy operations that it would like to accomplish with World Bank assistance over the next three years. As the below discussion shows, Black Sea / Danube pollution issues have been well integrated in CASs for Black Sea/Danube countries since the start of the Partnership. In summary, since 2000, ten out of twelve new CAS that were prepared in the Black Sea Danube countries included a discussion of projects to be implemented under the WB GEF Investment Fund." A summary of the CASs prepared since 2001 and their integration of nutrient reduction and water quality improvement objectives is provided in Table 10. Information on the process that was used to include Partnership projects in the Bank's portfolio may be found in Box 1.

The degree to which the GEF Strategic Partnership and its objective to reduce water pollution in the Black Sea and Danube River have been reflected in the CAS's of the basin counties that are eligible for funding is reviewed below.

From 2001 to date, a new CAS were prepared in 12 of the 14 eligible countries. These include Belarus (2002), Bosnia and Herzegovina (2004), Bulgaria (2002), Croatia (2004), Georgia (2003), Romania (2001), Russia (2002), Serbia and Montenegro (2004), Slovak Republic (2004), Moldova (2004), Turkey (2003) and Ukraine (2003). In the case of Hungary, Czech Republic and Slovenia the last CAS were prepared in the late 1990s. Ten of the twelve CASs developed since 2001 and SAM's Transitional Support Strategy included a discussion of projects to be implemented under the Investment Fund.

The 2004 CAS of Bosnia and Herzegovina points to competition within shared watersheds, flood management, water pollution control, protection of aquatic ecosystems, and conservation of wetlands". It noted that "[t]hese issues will require both improved inter-Entity coordination and transboundary approaches to improving water resources management, especially regarding the more effective used of shared rivers. To date, BH has been largely ineffective in addressing these problems, due largely to ineffective, country-level institutional arrangements and a lack of effective cooperation with Croatia and SAM, with which it shares key international waterways." The CAS further recommended that "[t]o address these issues, a water resources management strategy needs to be developed at the country level, including a viable institutional framework. At the regional level, a strategic vision and cooperation framework needs to be developed for the transboundary Neretva, Drina and Sava Basins." The latter recommendation is being addressed through the proposed GEF Water Quality Protection Project. The part of the project which will address the Danube Basin (Drina and Sava) is being funded under the IF. The project is listed in the Lending Program as a FY2005 deliverable.

Bulgaria's 2002 CAS stated that "Under the GEF supported Black Sea program, a GEF Medium Sized Project (FY04) would be provided for wetland restoration and introduction of environmentally friendly farming practices."

The main objective of the Croatia CAS is to support the government growth and reform strategy for successful EU accession while ensuring broad participation in growth and sustainable natural resource management. The CAS identifies water as the most critical natural resource to Croatia sustainability and highlights how GEF operations are closely linked to the EU accession agenda, by helping Croatia meet the environmental challenges. The CAS lists two projects proposed under the Danube-Black Sea Partnership: an agricultural pollution control project to complement an IBRD loan for Agricultural Acquis Cohesion, and the Zagreb Municipal Nutrient Reduction in the Danube River Basin (which however was later dropped).

The CAS prepared for Georgia in 2003 did not include new lending or GEF grant operation addressing Black Sea pollution issues, however it recounted in two places the outcomes of two ongoing projects, the Integrated Coastal Management Project (FY1999) and the Agriculture Research, Extension and Training Project (FY2000), and other assistance in environment and natural resources management: "[The International Development Association] IDA has assisted Georgia in developing a National Environmental Action Plan, and a National Oil Spill Contingency Plan to deal with the existing and future risks of oil pollution in the Black Sea coast. However, institutional and financial constraints compounded by limited political will have resulted in slow implementation of these plans. Assistance has been provided for the establishment of operational protected areas: 46,000 ha for protecting and managing threatened forest and wetland habitats along the Black Sea, and 184,000ha for protecting and managing three areas in the Caucasus Mountains. Activities have been supported to enhance public awareness and interest on the protection of critical wetlands along the Black Sea with some visible results. Efforts to establish a sustainable and effective integrated coastal zone management system has produced only modest

results to date." In a separate section the CAS notes that the GEF component of the FY00 Agriculture Research, Extension and Training Project addresses agricultural non-point source pollution run-off into the Black Sea Basin.

The strategic and long term objectives of the CAS for Moldova include improving quality of water and sanitation services and reduce environmental degradation and health hazards. The CAS supports the effort to improve the environment and states that IDA will seek support for GEF resources focusing on improved wetland and flood management, ecological restoration and forestation activities, capacity building, etc. The CAS identifies the GEF Agricultural Pollution Control project (already under implementation) as well as the proposed Environmental Infrastructure project under the Danube/Black Sea Investment Fund as part of the World Bank base case lending.

Romania's 2001 CAS listed the GEF funded Agricultural Pollution Control Project as one of the operations related to environmental management. Similarly, Russia's 2002 CAS considered sound management of arctic and riparian ecosystems as important problems, including the preservation of World Heritage sites such as Lake Baikal, and the successful implementation of regional environmental management agreements in the Caspian, the Black Sea, and the Baltics. The CAS then went on to specifically mention planned "GEF support to environmentally friendly farming practices in Krasnodar and wastewater treatment in Roov as part of the Regional Black Sea Nutrient Reduction Program". Serbia and Montenegro's Transitional Support Strategy from 2004 mentions the GEF Serbia Danube River Enterprise Pollution Reduction Project is being developed for FY05. The SAM CAS for 2005 – 2007 made specific reference to water pollution from industrial and agricultural sources and listed the DREPR Project as one of its FY05 deliverables.

The CAS developed for Turkey in 2003 stated that "pollution of the Black Sea should be prevented" and lists the GEF Black Sea Agricultural Pollution Control Project (blended with the Anatolia Watershed Management Project) under projects that would help attain the CSA objective of "Strengthening Environmental Management and Disaster Mitigation". Similarly, Ukraine's 2003 CAS discussed two relevant planned GEF operations under the objective "Protection of Natural Environment": "In the area of Wetland and Coastal Zone Management, the Biodiversity Conservation in the Azov-Black Sea Ecological Corridor project applies a landscape approach to sustainable management of coastal resources, which are threatened by unsustainable land use practices by untreated sewage and solid waste, especially in tourist related areas such as Crimea. The proposed Crimea Coastal Zone Management and Nutrient Reduction Project (GEF) would build on this approach by supporting wastewater treatment and improved land use planning in the Crimea and Black Sea region. This project would also contribute to nutrient reduction in the Black Sea."

Table 9. World Bank Country Assistance Strategies (2001-2004)

Country	CAS date	CAS REFERENCE TO Danube/Black Sea basin water quality improvement
Bosnia & Herzegovina	2004	"Competition within shared watersheds, flood management, water pollution control, protection of aquatic ecosystems, and conservation of wetlands…These issues will require both improved inter-entity coordination and transboundary approaches to improving water resources management, especially regarding the more effective

		used of shared rivers." […] "To address these issues, a water resources management strategy needs to be developed at the country level, including a viable institutional framework. At the regional level, a strategic vision and cooperation framework needs to be developed for the transboundary Neretva, Drina and Sava Basins." The latter recommendation is being addressed through the GEF Water Quality Protection Project which is partially funded by the IF for the portion that addresses the Danube Basin (Drina and Sava).
Bulgaria	2002	"Under the GEF supported Black Sea program, a GEF Medium Sized Project (FY04) would be provided for wetland restoration and introduction of environmentally friendly farming practices". The IF-funded Bulgaria Wetland Restoration project was described in the previous CAS.
Croatia	2004	"The main objective of the CAS is to support the government growth and reform strategy for successful EU accession while ensuring broad participation in growth and sustainable natural resource management". "Water is the natural resource most critical to Croatia sustainability […] [E]nvironmental management at both national and municipal level needs strengthening". "GEF operations are closely linked to the EU accession agenda, by helping Croatia meet the environmental challenges". The CAS lists two projects proposed under the Danube-Black Sea Partnership: an agricultural pollution control project to complement an IBRD loan for Agricultural Acquis Cohesion, and the Zagreb Municipal Nutrient Reduction in the Danube River Basin.
Georgia	2003	"[The International Development Association] IDA has assisted Georgia in developing a National Environmental Action Plan, and a National Oil Spill Contingency Plan to deal with the existing and future risks of oil pollution in the Black Sea coast […] Assistance has been provided for the establishment of operational protected areas: 46,000 ha for protecting and managing threatened forest and wetland habitats along the Black Sea, and 184,000ha for protecting and managing three areas in the Caucasus Mountains. Activities have been supported to enhance public awareness and interest on the protection of critical wetlands along the Black Sea with some visible results. Efforts to establish a sustainable and effective integrated coastal zone management system has produced only modest results to date." […] "The GEF component of the FY00 Agriculture Research, Extension and Training Project addresses agricultural non-point source pollution run-off into the Black Sea Basin". No new lending or GEF grants addressing Black Sea pollution issues are envisaged in the 2003 CAS.
Moldova	2004	The CAS strategic and long term objectives include "improving quality of water and sanitation services and reduce environmental degradation and health hazards". "The CAS supports the effort to

		improve the environment. IDA will seek support for additional GEF resources focussing on improved wetland and flood management, ecological restoration and forestation activities, capacity building, etc…". The CAS identifies the GEF Agricultural Pollution Control project (already under implementation) as well as the proposed Environmental Infrastructure project under the Danube/Black Sea Investment Fund as part of the World Bank base case lending.
Romania	2001	The GEF Agricultural Pollution Control Project is listed as one of the operations related to environmental management.
Russia	2002	"Sound management of arctic and riparian ecosystems are important problems, including the preservation of World Heritage sites such as Lake Baikal, and the successful implementation of regional environmental management agreements in the Caspian, the Black Sea, and the Baltics" […] The planned "GEF support to environmentally friendly farming practices in Krasnodar and wastewater treatment in Rostov as part of the Regional Black Sea Nutrient Reduction Program" are specifically listed in the CAS.
Serbia & Montenegro	2004	The CAS is designed to support the implementation of the EU stabilization and association process and the poverty reduction strategy and has 3 goals: more efficient public sector, more dynamic private sector, improved social protection and reduced poverty. Cleaning up and protecting the environment is identified as necessary to ensure quality economic growth. More specifically, the CAS identifies flood and drainage management, agricultural pollution reduction, water resource management and agro-biodiversity as critical efforts to improve natural resource management and agricultural productivity Serbia and Montenegro (SAM)'s Transitional Support Strategy (2004) mentioned the GEF Serbia Danube River Enterprise Pollution Reduction (DREPR) Project while the CAS makes reference to water pollution from industrial and agricultural sources and lists the DREPR Project as one of its FY05 deliverables.
Turkey	2003	"Pollution of the Black Sea should be prevented" […] "The GEF Black Sea Agricultural Pollution Control Project (blended with the Anatolia Watershed Management Project would help attain the CAS objective of strengthening environmental management and disaster mitigation". "Pollution of the Black Sea should be prevented" […] "The GEF Black Sea Agricultural Pollution Control Project (blended with the Anatolia Watershed Management Project would help attain the CAS objective of strengthening environmental management and disaster mitigation".
Ukraine	2003	"Protection of Natural Environment" is one of the CAS's objectives and improved natural resource management, improved water quality and meeting key international environmental obligations are

		among the means identified to reverse environmental degradation and increase environmental sustainability. "The government will continue to work with neighbouring countries in the preservation and protection of common ecosystems" "In the area of Wetland and Coastal Zone Management, the Biodiversity Conservation in the Azov-Black Sea Ecological Corridor project applies a landscape approach to sustainable management of coastal resources, which are threatened by unsustainable land use practices by untreated sewage and solid waste, especially in tourist related areas such as Crimea. […] The proposed IBRD/GEF Ukraine Municipal Infrastructure project and the GEF Crimea Coastal Zone Management and Nutrient Reduction Project would build on this approach by supporting wastewater treatment and improved land use planning in the Crimea and Black Sea region, while contributing to nutrient reduction in the Black Sea."

Note: Hungary, Czech Republic and Slovenia had their last CAS prepared in the late 1990s and are not included in this summary. Belarus had a CAS prepared in 2002 and Slovak Republic had a Country Partnership Strategy (CPS) prepared in 2004. Both strategies make some reference to environment but do not specifically address water quality issues in the Danube/Black Sea basins.

***Knowledge sharing**:* Since 2002, the Bank has helped organize three annual regional workshops dedicated to the exchange of information and lessons learnt among countries of the Black Sea, Danube River and Baltic Sea Basins, implementing agricultural pollution control (APC) projects. The workshops were organized in Poland (September 2002), Romania (September 2003), Lithuania (September 2004) and Georgia (October 2005) and included presentations by project managers, national and local level policy makers, environmental inspectors, agricultural advisors as well as academicians; study tours to project regions and in-depth discussions on various aspects of APC. In addition to project implementers from basin countries ranging from Georgia to Serbia and Montenegro and from Latvia to Turkey, representatives from the European Commission working on the Nitrate Directive Implementation and Black Sea Danube River Basin Pollution Control issues, other EU member countries such as Sweden, and from the UNDP/UNEP implemented Partnership Black Sea and Danube Regional Projects have participated in the workshops. Discussions at the workshops shave focused on experiences in harmonizing with the EU Nitrate Directive, the development of a Code of Good Agricultural Practices, monitoring of nutrient runoff and discharges, the important role of public awareness raising and of mainstreaming nutrient management in the advice provided by agricultural extension services and enforcement of regulations on manure management and fertilizer application.

Box 1. Process IF Portfolio Development

In developing the IF portfolio, the World Bank followed the *first come – first served* principle which was stated in the Partnership Framework Brief adopted by the May 2000 GEF Council. Furthermore, the Bank also considered it important that individual projects were well adapted to individual country priorities with regard to nutrient pollution as well as prospects of financial sustainability of prospective investments and complementarities with ongoing or planned operations funded by the Bank, other bilateral or multilateral financiers, the governments themselves or even the private and non-private sectors. These considerations followed the IF guiding principle that GEF IF funds were to catalyze investments in nutrient reduction. As first

step, the team coordinating the IF prepared country briefs based on National Reviews and Nutrient Action Plans that had been prepared by the ICPDR and the Istanbul Commissions, World Bank sector reviews, CASs, discussions with the Black Sea Commission, ICPDR and project staff, and interviews with World Bank task managers working in the environment and infrastructure sectors of the countries in question. The latter discussions also aimed at raising awareness on the part of task managers of the nutrient pollution problem in the Black Sea and Danube and funding possibilities offered by the IF to address it. Task managers in turn incorporated Danube/Black sea water pollution reduction objectives in their discussions with their counterparts in national governments, NGO community and private sector representatives. Project concepts that emerged from these discussions were evaluated in the CAS process from the point of view of national priorities.

UNEP

UNEP, through its Regional Office for Europe (ROE), GPA and Regional Seas Programme (RSP), is providing policy advice to the Black Sea Commission and the GEF-BSERP PIU for the development of the detailed plan to undertake consultations at the national level on the revised Protocol for the Protection of the Black Sea Against Pollution from Land-Based Sources and Activities (BS LBSA Protocol), as well the future inter-governmental process for its possible adoption in 2007.

UNEP/GPA is providing policy advice to the Black Sea Commission and the GEF-BSERP PIU for the implementation of the Black Sea Commission's programme for 2005 as it pertains to the GPA and Black Sea concerns dealing with nutrients, persistent organic pollutants, radioactive substances, heavy metals and other toxic substances. This includes activities dealing with marine litter, coastal erosion and the implementation of the BS LBSA Protocol.

UNEP/GPA (Global Programme of Action for the Protection of the Marine Environment from Land-based Activities) together with The Train-Sea-Coast Black Sea team at the Middle East Technical University (METU) and UNESCO-IHE – UN/DOALOS has translated the Training Course on Municipal Wastewater Management for Decision Makers at Municipal Level into the Turkish language (http://www.gpa.unep.org/training/Calendar.html). The course has been delivered to participants from Ankara, the Black Sea and the Aegean coast. This training was offered in collaboration with the Ministry of Environment and Forest of Turkey, the Turkish Branch of the International Foundation of Environmental Education (FEE) and the Chamber of Environmental Engineers (CMO).

Train-Sea-Coast Black Sea is presently finalizing a Train-Sea-Coast course on nutrient reduction from agricultural run-off. The course on wastewater management is complimentary to the efforts in reducing nutrients to the Black Sea. A demand for more courses in the region was expressed and a joint implementation strategy is under development.

UNEP/RSP is finalizing a MoU with the Black Sea Commission to assist in the environmental protection and sustainable management and development of the Black Sea region through the development of a Regional Activity on Marine Litter within the framework of the Strategic Action Plan on Rehabilitation and Protection of the Black Sea.

In preparation for the Second Inter-Governmental Meeting of the GPA to take place in Beijing, China, from 16 to 20 October 2006, UNEP/GPA is preparing a State of the Environment report that will the actual state of pollution coming from land-based sources and activities and the physical degradation of coastal zones at the global and regional levels. The assessment will be focused on the GPA's pollutant source categories, namely, wastewater/sewage, physical alteration and

destruction of habitat, nutrients, persistent organic pollutants, radioactive substances, heavy metals, sediment mobilization, litter and oils.

EU

The DABLAS Task Force was set up by the Environment Ministers of the Danube-Black Sea Region together with the European Commission in 2001, with the aim to provide a platform for co-operation for the protection of water-related ecosystems in the Danube/Black Sea basin. The Dablas Task Force project pipeline includes 24 projects in Danube and Black Sea countries (see Annex 1). The DABLAS pipeline projects are municipal wastewater investments, but one of the goals of the DABLAS 2004 updated assessment was to include other interventions, non-point source reduction and point-source projects in the industrial and agro-industrial sectors.

Other EU initiatives include **CARDS**, focusing on technical assistance and investment support in the Balkan countries (including the Danube Clearance Project); **TACIS**, financing projects in Moldova, Ukraine, and the Black Sea in general; **PHARE**, projects focusing on cross-border environmental issues between Hungary, Slovakia, Bulgaria, and Romania; **CADSES**, dealing with land use, river basin management, and environmental infrastructure on the tributaries of the Danube; **ISPA**, considerable grant financing in the municipal sector; and **SAPARD**, supporting agricultural reform in the recent EU member states and the accession countries.

Other International Development Initiatives

The EIB and EBRD, and other IFIs, have also been instrumental in helping to propagate investment in nutrient reduction throughout the region. For example, the EIB has extended several loans for municipal wastewater tertiary treatment upgrades in the Czech Republic, and ERBD is working jointly with the EU ISPA programme on municipal sector improvements, currently active among the accession countries (BG, HR, RO) and the recent EU Member States. The 55.8 MUSD Slovenia-EBRD/GEF Environmental Credit Facility was established with the primary objective of reduction of nutrient and toxic emissions to the Danube River from sources within Slovenia.

Under the **GEF/UNIDO/UNDP** TEST (Transfer of Environmentally Sound Technologies to reduce Transboundary Pollution in the Danube River Basin) 17 polluting industries in BG, RO, HU, SK and HR were assisted in developing and implementing cleaner production techniques. These demonstration projects achieved considerable reductions in a range of polluting substances (including nutrients and toxic substances). This project recognised that one of the success drivers for this project was the need for the countries (and industries) to comply with the strict EU standards for environmental compliance.

Table 10. UNDP Wetland Projects in the Danube Region

COUNTRY	TITLE	STATUS	DESCRIPTION
Romania	Strengthening Romania's Protected Area System by Demonstrating Public-Private Partnership in Romania's Maramures Nature Park.	MSP project very close to the final approval	The North-West region of Romania-Maramure is an intracarpathian depression having connections with the Tisza Plain. The climate, relief and geomorphology determine a very developed hydrographic network. All the rivers belong to the Tisza system, being collected by this river. The area has an unique structure induced by the diversity of the habitats and by the western climate influences on the communities (vegetation and fauna). The main near-by hot spot is the Baia Borja Mining Company. The wetlands constitute a complex of water sources, small streams, bogs, marshes and ponds. The restoration and conservation of their natural facilities will induce the increasing of the filter capacity of the landscape.
Hungary	Conservation and Restoration of the Globally Significant Biodiversity of the Tisza River Floodplain Through Integrated Floodplain Management	MSP proposal has been approved by GEF, the project document is under finalization, expected start of the project - summer/autumn 2005	This project will develop and demonstrate approaches to the realization of inter-dependent ecological, social and economic benefits arising from the sustainable conservation of the globally significant biodiversity of the Tisza River oxbow system, the protection and enhancement of national and international hydrological resources, and improved land management in three project sites in Hungary. GEF resources will be used to incorporate integrated oxbow ecosystem conservation with watershed management and agricultural objectives, principles, and practices in the context of rural development. The integrated ecosystem management approach will secure global biodiversity values, help reduce rural poverty through the provision of alternative and sustainable livelihoods, as well as sustainably manage natural resources. The project will serve as a demonstration for the adoption of integrated ecosystem management approaches outside of the project sites, both in Hungary and other countries. The project will also support the protection and management of the three Ramsar sites in the Tisza area. Moreover, important ecological core areas and corridors will be protected, rehabilitated and some wetlands created (16-40 km2

COUNTRY	TITLE	STATUS	DESCRIPTION
Slovakia	Conservation, Restoration and Wise Use of Calcareous Fens in the Slovak Republic	MSP under implementation since June 2005, expected duration 5 years	The project aims at the conservation of Carpathian peatland biodiversity, with a focus on calcareous fens fens, a unique ecosystem with its center of distribution in Slovakia. In particular, the following principal root causes will be addressed: 1) drainage of fens, 2) lack of appropriate management of protected fen areas, and 3) lack of public awareness and appreciation of peatland biodiversity. Activities realized in two or three pilot areas will serve to demonstrate best practices in restoring and managing these valuable habitats.
Bulgaria	Conservation of globally important migratory species along the Bulgarian Black Sea Coast through mainstreaming conservation practices into key areas of economic activity	PDF A started in March 2005, expected final type of the project: Full size project	The project goal is preservation of globally important migratory species and the integrity of their habitats along the Bulgarian Black Sea Coast. Internationally important biodiversity and natural landscapes will by the end of the project be significantly more secure in the long-term. This will be achieved through the mainstreaming of conservation concerns and principles into urban development, tourism and energy industries and policies.
Slovakia	Integration of Ecosystem Management Principles and Practices into Land and Water Management of Slovakia's Eastern Lowlands	PDF A started in March 2005, expected final type: MSP project	The proposed project will facilitate a sustainable transition by water managers, farmers and other resource managers in Slovakia's Eastern Lowlands from conventional water and agricultural management techniques to integrated ecosystem management practices. In so doing, resource managers will conserve globally significant biodiversity and reduce nutrient loading of Europe's largest transboundary river. The project will demonstrate ecosystem management at a pilot site – the 29,536 ha Laborec-Uh area – and extract best practices and lessons learned for systematic dissemination and application throughout the Eastern Wetlands and in a great many similar situations around Slovakia and Eastern Europe

2.6 Partnership Objective 6

Pilot techniques for restoration of Danube/Black Sea basin nutrient sinks and reduction of non-point source nutrient discharges through integrated management of land and water resources and their ecosystems in river sub-basins by involving private sector, government, NGO's and communities in restoration and prevention activities, and utilizing GEF Biodiversity and MSP protocols to accelerate implementation of results.

2.6.1 Partnership Objective 6: Progress Summary

Partner	**Indicator** All countries in basin begin nutrient sink restoration and non-point source discharge reduction by 2007 through integrated river sub-basin management of land, water and ecosystems with support from IAs, partners and GEF through small grants to communities, biodiversity projects for wetlands and flood plain conservation, enforcement by legal authorities and holistic approaches to water quality, quantity and biodiversity of aquatic ecosystems. Plans (coherent with the ICPDR Joint Action Programme) are developed in accord with the application of the relevant EU Water Directives.
Danube River	WB agricultural reform projects in Romania and Moldova, and wetlands restoration in Bulgaria under implementation. Small grants programme launched and expanding in Phase II. Solid foundation for communication and outreach efforts, and further development in Phase II DRP Phases 1 & II provided significant input to assisting countries to develop policies directed at Best Agricultural Practice. Phase II of DRP will continue to assist wetland managers in the basin with evaluating nutrient removal capacity in wetlands EU WFD Roof Report completed demonstrating country commitment to the implementation of the Directive that will provide significant reductions of nutrients and toxic substances discharged into the DRB meeting the objectives of the Partnership.. Communication strategies, Public participation and access to information initiatives are significant outputs of Phase II of the DRP in support of the ICPDR.
Black Sea	WB projects in Georgia (ICZM – close to completion) Russia and Turkey (approved), and planned for Ukraine (ICZM) and Turkey (fertilizer factory). These projects could act as a pilot/catalysis and replicated in other parts of the basin. Small Grants programme launched in 2002 December. Also, outreach efforts started, and planned to be extended in Phase II. Updated TDA and ICZM plan to be completed in Phase II.
Progress Estimate:	Danube River: 60%; Black Sea: 40%; **Overall: 40 – 50%%**

2.6.2 Partnership Objective 6: Progress

The 5.1 MUSD WB-funded Bulgaria wetlands project is an important nutrient "sink" restoration effort, which is likely to lead to similar intervention in the basin, including, for example, the restoration of the transboundary wetland Gemenc-Kopacki Rit (HU-HR) which is part of the WB Hungary Nutrient Reduction programme (pending co-financing).

Nurturing sustainable land use practices is also highlighted in other WB funded projects, including under the Romania and Moldova Agricultural Pollution Control Programs, the 2 agricultural reform programmes in Russia, and the Anatolia Watershed Rehabilitation in Turkey.

Completion of the EU WFD "Roof Report" for the Danube River Basin involved multiple stakeholders and collaboration among the basin countries. Close DRP cooperation with the EU CARDS "Pilot River Basin Plan for the Sava River Basin", is a vital initiative in the Danube River Basin. The DRP will assist with the development of a 'top level' river basin management plan for the Sava river. The Tisza river basin is soon to be the subject of a UNDP funded programme developing detailed river basin management plans including flood issues.

The Black Sea Ecosystem Recovery Project plans similar holistic management efforts in Phase II, firstly through completion of an updated transboundary diagnostic analysis and an integrated coastal zone management plan.

Phase I of the DRP extended 600 kUSD in small grants for agriculture (e.g., promoting eco-farming methods), land use/wetlands (e.g., restoration of flood plain forest), municipal (e.g., household waste management), and industry (e.g., promoting best available practices) projects. A total of 58 national and 5 regional projects were initiated. Phase II of the DRP will continue this approach. The number of NGOs actively engaged in the Danube River Basin through the Danube Environment Forum is now 165, up from 50 at the start of Phase I. Furthermore, a communication strategy has been prepared, professional public relations assistance has been retained, and a wide range of community events took place including the initiation of the 2004 June Danube Day. These activities are co-ordinated closely with the ICPDR.

In Phase II of the DRP, public participation activities are even more prominent. An additional component in Phase II is a programme to enhance support of public participation in addressing priority sources of pollution ('hot spots') through improved access to information in the frame of the EU WFD. This activity will strengthen and enhance the GEF priority of community involvement and reinforce the capacities of the ICPDR to implement the elements of public participation of the EU WFD.

The Small-Grants Programme of the BSERP supported 17 projects totalling 320 kUSD, during the period of December 2002 and December 2003. A number of community activities, through the coordination of local NGOs, were held on the International Black Sea Day. Educational/training outreach efforts have also been formulated, intended for distribution to national education authorities and agricultural extension services in the coastal regions.

For both projects, outreach, including pilot projects, is a critical component for Phase II. The DRP will place a great deal of focus on promotion of Best Agricultural Practices (BAP) and Best Available Techniques (BAT). These pilot projects will build on the preparatory work completed in Phase I and continue to enhance the countries capacity to implement new pollution reducing policies. A key focus for the DRP Phase II will be on the four 'non-accession' countries (Moldova, Ukraine, Bosnia & Herzegovina and Serbia & Montenegro).

Based on an assessment of fully financed investment projects, it is apparent that agricultural land use, and agro-industrial and industrial point source pollution reduction interventions are under-represented, emphasizing the need to extend outreach efforts to these sectors. The BSERP will expand its support to NGO networks to ensure that capacities are mobilized at the "grass roots" to facilitate pollution reduction in the coastal zone.

3. ENVIRONMENTAL STATUS OF THE DANUBE AND BLACK SEA BASIN RELATED TO NUTRIENT POLLUTION.

This summary is based on information presented at the Stocktaking Meeting (Bucharest, November 2004), the results of the EC funded daNUbs project, the ICPDR's EU WFD Roof Report and additional material made available through the ICPDR. The focus here is on providing summary information on dissolved oxygen levels in the Black Sea North West Shelf (near the mouth of the Danube River), information on nutrient loads from measured and modelled data from the Danube River and preliminary information on the signs of ecological recovery in the Black Sea based on recent survey data.

3.1. Background

From the early 1970s through the 1980s, the Western Black Sea ecosystem suffered from the effects of excessive nutrient and toxic substances loads, mainly originating from the Danube, Dniester and Dnipro River basins. Oxygen levels were depleted and frequent algal blooms were the norm, causing significant declines in fish stocks, deleteriously affecting the benthic community, and spoiling the recreational features of this popular tourist destination.

The Danube contributes approx. 200 km^3/year of the Black Sea's total 350 km^3/year freshwater inflow, and historically about 65-80% of the nutrient load entering the Western Black Sea comes from the Danube River.

Nutrient and toxic substances emissions have been directly influenced by the unprecedented change experienced by the basin countries in the last 15 years. With the fall of the ex-communist regimes, former Soviet agricultural markets collapsed, causing numerous large agricultural operations to scale back their activities. Application of market fertilizers to croplands in Central and East European countries was suddenly cut to nearly half the levels seen in the 1980s. Many export markets for live animals vanished, resulting in the shutdown of scores of large livestock rearing enterprises. Numerous large industrial complexes also folded, as they were unable to make necessary capital improvements to compete in the newly opened free market economies. One positive consequence of the regional economic crises was a significant reduction in pollution emissions. Indeed, the ecosystem health of the Western Black Sea has improved throughout the 1990s and is presently better off than it was in the 1970s and 1980s.

Environmental stress is on the rise in the region, however, and even maintaining the present ecosystem status in the Danube River basin and the Western Black Sea will be a formidable challenge. The economies are recovering in many of the basin countries, and agricultural and industrial activities are beginning to become revitalized. Agricultural productivity is presently low throughout much Central and Eastern Europe, but expected to grow as regional markets recoup and infusion of capital investments take effect.

Also, as sewage collection expands and more and more municipal wastewater treatment plants come on line, there is a compelling risk that N and P emissions will increase. The recent EU member states (CZ, HU, SI, SK) were forced to take stock of their water and wastewater infrastructure systems in the 1990s, in order to comply with relevant EU water directives, as accession discussions advanced. Many of the municipal sector improvements in these countries are only now starting to be realized. Tertiary treatment (N and P removal) is being applied for a large

number of the upgraded and new wastewater treatment plants, but not in all cases. Furthermore, demands for N and P removal for wastewater treatment plants in rural communities, representing approx. 40% of the Danube River Basin, are lower than for urban settlements. On top of these pressures, sewerage coverage in the eastern and southeastern Danube River Basin countries today averages less than 50%, so municipal discharges will certainly proliferate as these nations further develop in the coming years.

3.2. System Response – Environmental Status Indicators

From the early 1970s through the 1980s, excess nutrient loads to the western Black Sea led to widespread eutrophication; tens of thousands of km^2 were under hypoxic conditions (depleted oxygen). Oxygen levels sharply improved throughout the 1990s, and benthic hypoxia has been nearly nonexistent in recent years.

Figure 1 Development of seasonal areas of low oxygen concentration near the bottom on the north-western shelf of the Black Sea (after ZAITSEV & MAMAEV 1997) (Roof Report)

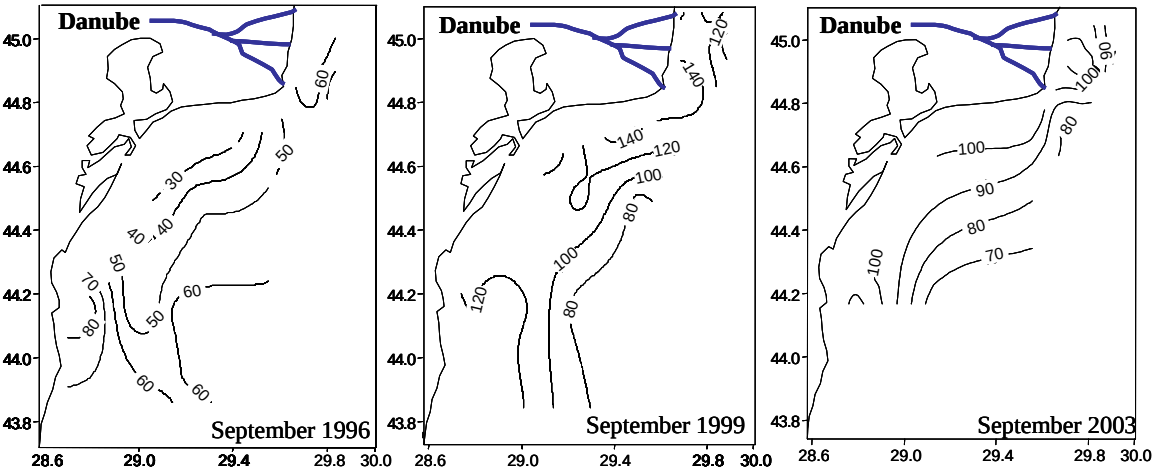

Figure 2 Concentration of dissolved oxygen (expressed as % of saturation value) near the bottom on the Romanian shelf of the Western Black Sea in September 1996, September 1999 and September 2003 (compiled in the daNUbs project from data collected by RMRI) (Roof Report)

The recovery of oxygenated conditions in the Western Black Sea is undoubtedly associated with the sudden decrease in market fertilizer use in the eastern Danube countries and the collapse of many industrial and agriculture point sources at the beginning of the 1990s, as well as municipal wastewater treatment improvements and agricultural reforms realized in the upper reaches of the Danube basin.

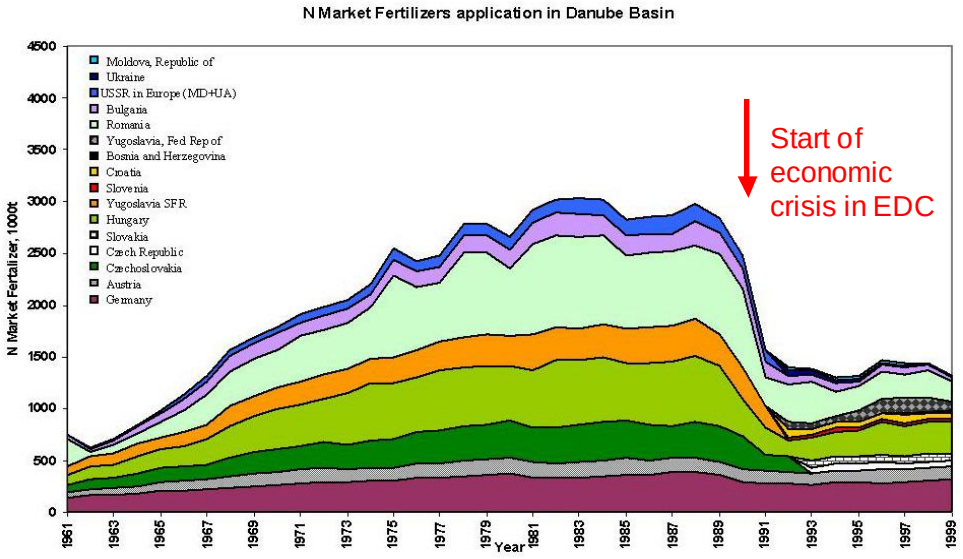

Figure 3: N Market Fertilizers application in Danube Basin

Source: Kroiss presentation, STM Nov 2004

The largest fraction (Figure 4) of N emissions to the Danube stem from agricultural sources, whereas wastewater accounts for nearly a quarter of N emissions.

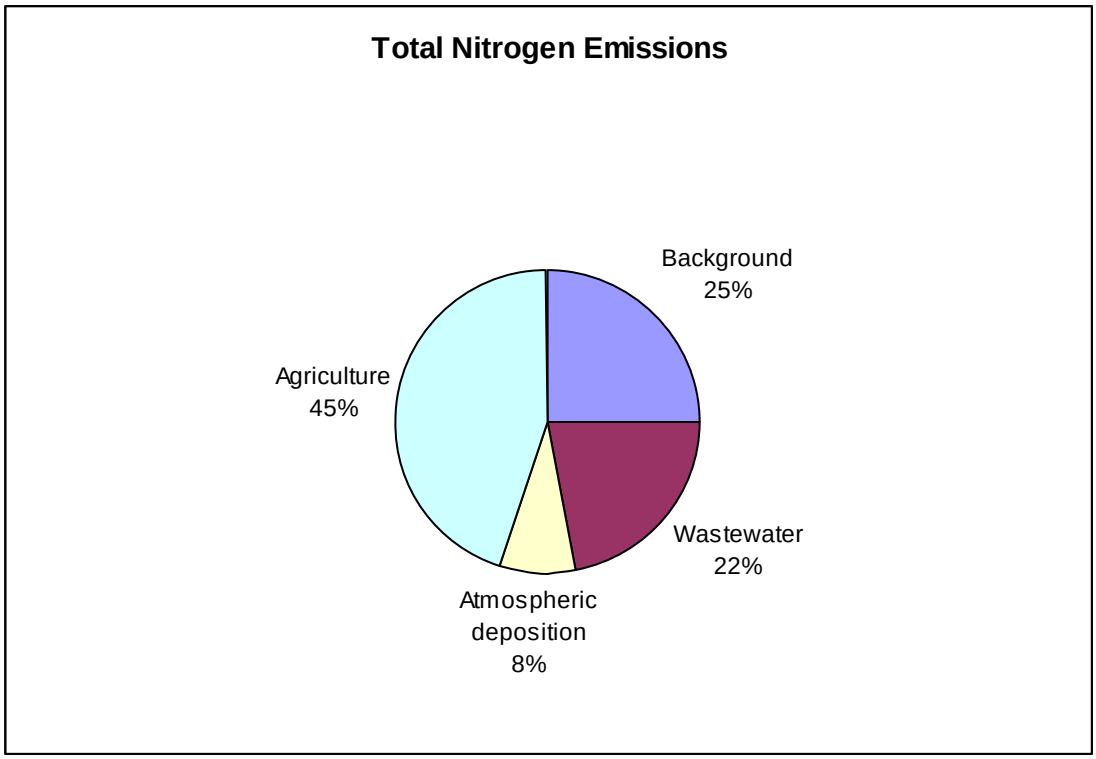

Figure 4: Emission sources of Nitrogen in the Danube River Basin (1998-2000 emissions)

Source: Kroiss presentation, STM Nov 2004

Total N emissions to the Danube River Basin increased from approx. 400 kt/a in 1960 to a peak of 900 kt/a in 1985, and have since receded to approx. 700 kt/a in the early 2000s. Total N emissions today are approximately 1.8x greater than 1960 levels.

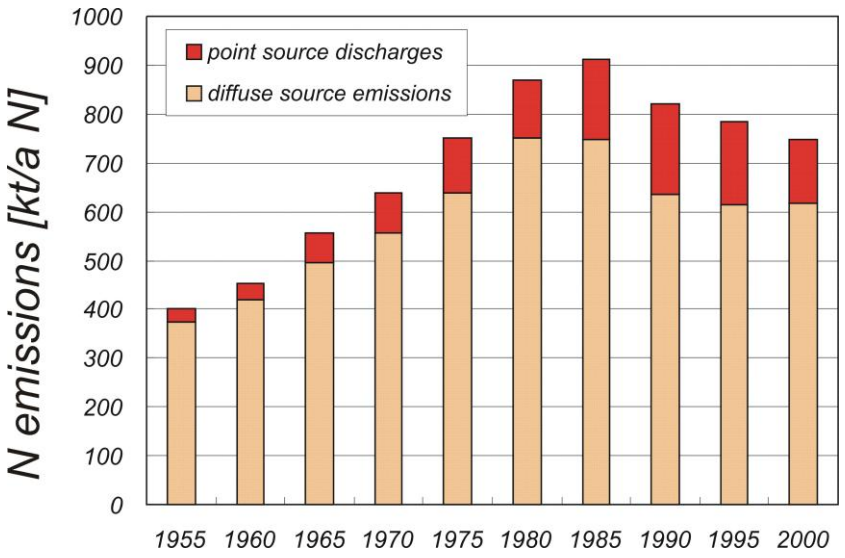

Figure 5: Temporal changes of the nitrogen emissions into the total Danube river system for the years 1955 to 2000; result of the MONERIS application for this report

Source: Roof Report, 2005 March[9]

Total N loads to the Black Sea from the Danube River Basin are presently approx. 420 kt/a (60% of total N emissions to the basin). The 40% of the N retained in the system is largely removed through denitrification. From the peak load situation experienced in the late 1980s, total N loads to the Western Black Sea have decreased by approximately 20% (Behrendt et al. 2004[10]).

The peak in N fertilizer use, 2-3 million tons per year, during the period from 1970 to 1990 was met with consequent development of eutrophic conditions in the Western Black Sea. Although headway is being realized in nutrient reduction efforts throughout the basin, diffuse source pressure, especially N, is expected to rise as economic recovery in the agricultural sector is attained. Consider that diffuse N and P emissions in Austria and Germany are presently markedly higher per hectare than many of the eastern Danube River Basin countries (van Gils et al[11]). Even if concurrent with the introduction of Best Agricultural Practices, the potential for future diffuse N emissions to increase is significant.

9 ICPDR, Mar 2005. Danube Basin Analysis (WFD Roof Report 2004), March 2005. International Commission for the Protection of the Danube River, Vienna.

10 Behrendt, H., J. van Gils, H. Schreiber, M. Zessner, 2004. Changes of nutrient emissions from point and diffuse sources and loads in the Danube River system within the last decades. Arhiv Hydrobiol. (accepted).

11 van Gils, J., H. Behrendt, A. Constantinescu, K. Isermann, R. Isermann, M. Zessner. 2005. Future Developments of Nutrient Emissions and River Loads in the Danube Basin (unpublished report).

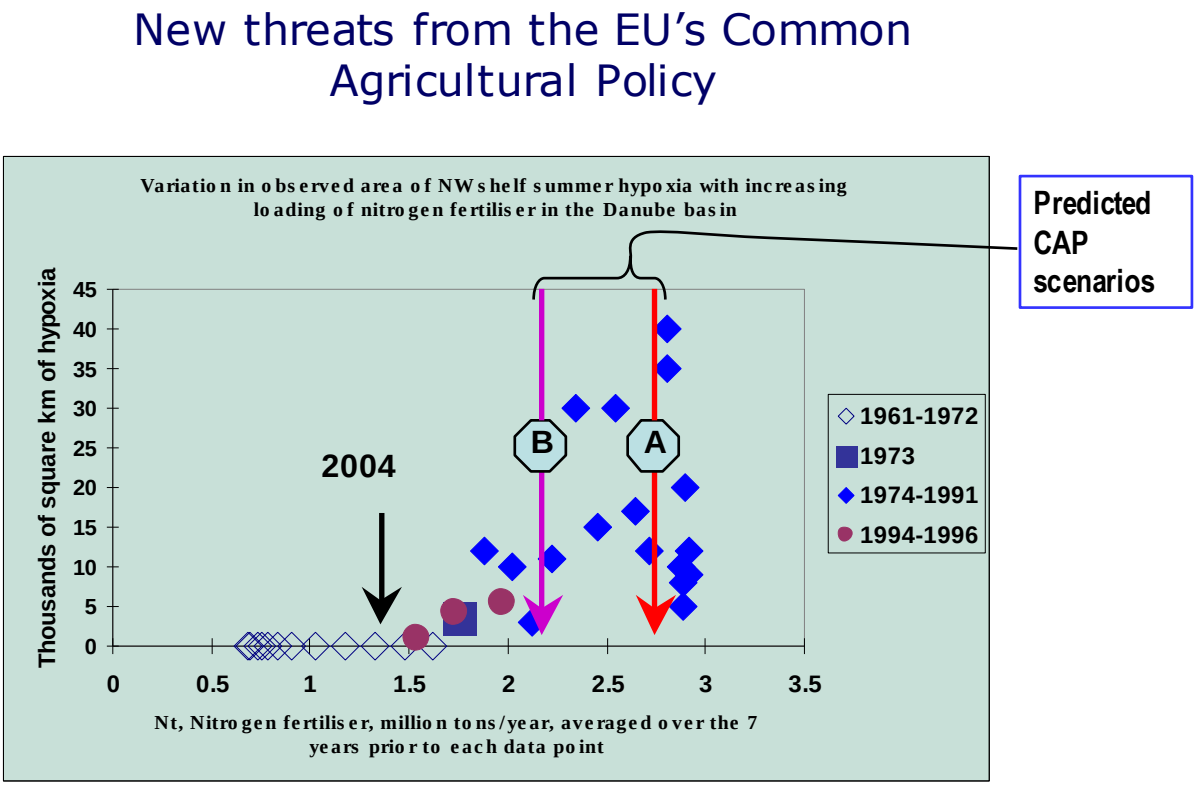

Figure 6: New threats Need Policy Attention in the EU's Common Agricultural Policy

Scenario A assumes equality in post accession fertiliser application rates in all states but with no net increase in total usage from 2001. Scenario B assumes a fixed maximum nitrogen surplus of 50 Kg/Ha (this is quite optimistic). Both scenarios would result in a return of the dead zone. If this is to be avoided, careful attention must be paid to reducing nitrogen surpluses by further improvements in agricultural practices

Source: Mee, April 2005 presentation[12]

Similar to N emissions, roughly half (43%) of P inputs originate from agricultural activities, and 45% from wastewater discharges (Figure 7).

12 Mee, L., Apr 2005. Presentation to BSERP, April 2005.

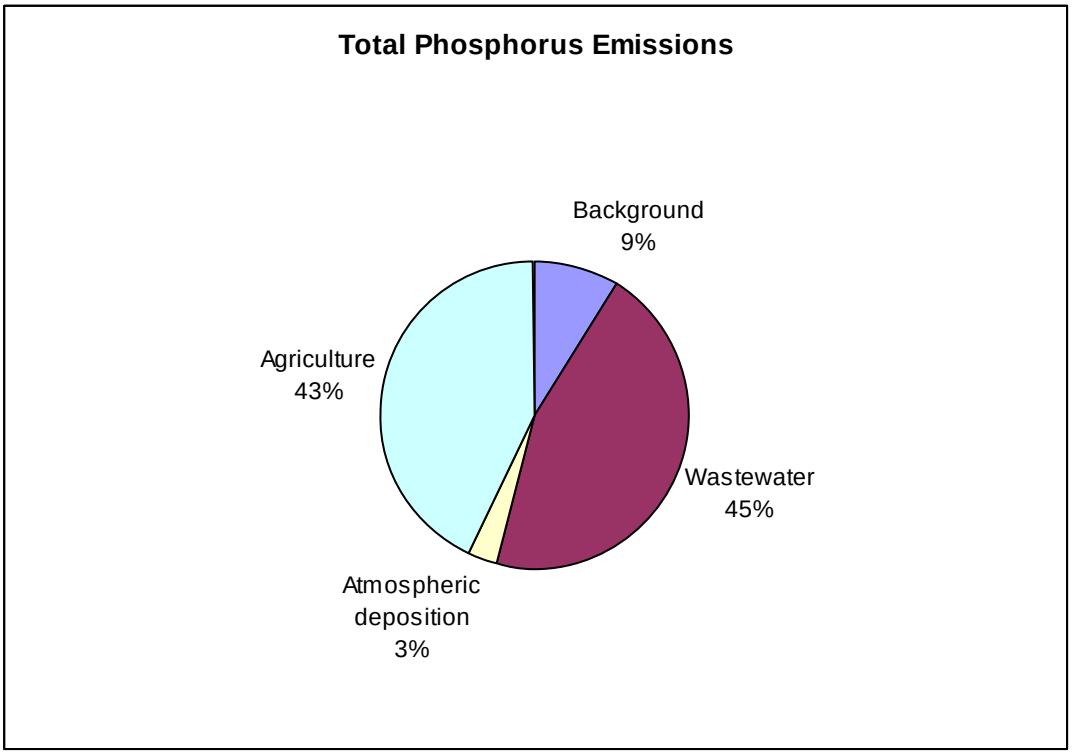

Figure 7: Emission sources of Phosphorus in the Danube River Basin (1998-2000 emissions)

Source: Kroiss presentation, STM Nov 2004

Total P emissions have followed a similar trend as that observed for N: 1960 levels were approx. 50 kt/a, emissions peaked in 1990 at nearly 110 kt/a, and approx. 65 kt/a was emitted to the surface water bodies in the basin in 2000---see Figure 8. This represents and almost 50 % reduction over the decade of the 1990s.

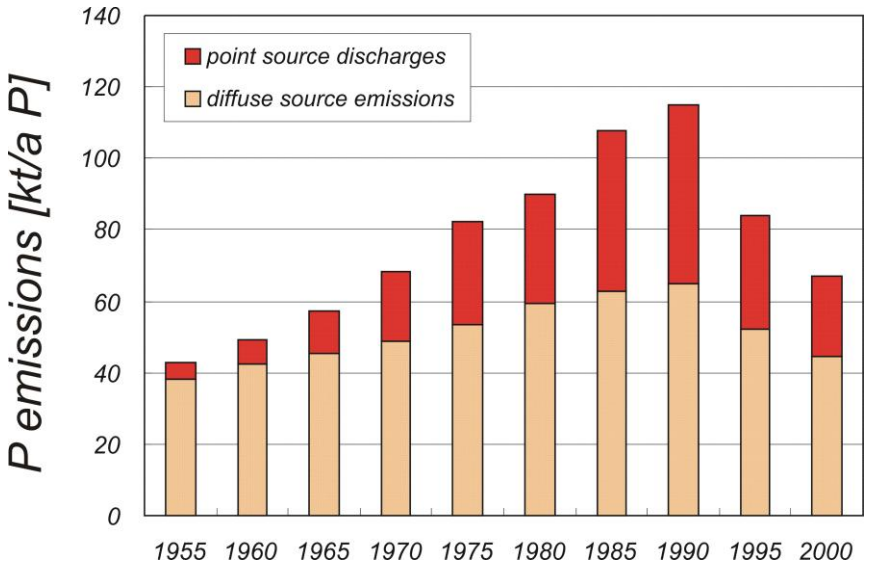

Figure 8: Temporal changes of the phosphorus emissions into the total Danube river system for the years 1955 to 2000; result of the MONERIS application for this report

Source: Roof Report, 2005 March

A significant proportion of total P emissions are retained in the basin. As much as 65-70% of total P emissions are removed by sedimentation, approximately 40% within the Iron Gate dam I. P loads to the Western Black Sea were approximately 20 kt/a in 2000, 30% lower than quantities entering the sea in the late 1980s. As of latest available data (2001), total P loads had fallen to only 13 kt/a.

In addition to changes in anthropogenic nutrient inputs, river hydrology significantly influences N and P loads to the Black Sea. The lower volume of Danube flows since the mid-1990s could be as significant to nutrient emission reductions as the changes realized from improvements in urban wastewater treatment and decreases in agricultural activity (van Gils et al.) and as less nutrient pollution is washed off the fields and feedlots.

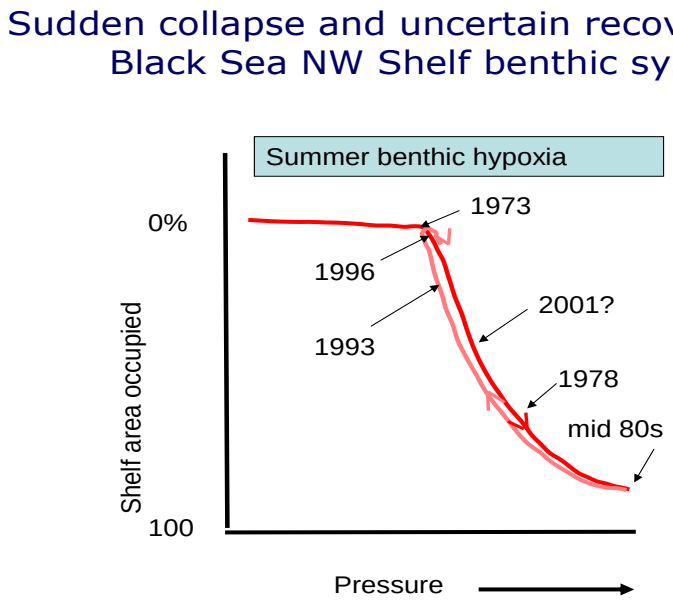

Figure9: Sudden collapse and uncertain recovery of the Black Sea NW Shelf benthic system

Source: Mee, 2005 April Black Sea presentation

One of the notable ecological casualties of the frequent hypoxic events in the 1970s and 1980s was the virtual loss of vast, underwater meadows of red algae termed *Phyllophora*. The species is considered as a flagship species for the North Western shelf of the Black Sea; The *Phyllophora* benthic meadows supported a highly productive ecosystem of plants and animals (more than 200 species). The gradual recurrence of *Phyllophora* was confirmed during a survey cruise of the Western Black Sea in September 2004 (Hortsmann et al.[13]).

There has been measurable, albeit gradual recovery of biodiversity among the benthic community of the Western Black Sea. The number of benthic species observed in the early 2000s was 1.5x-2x higher than levels found in the late 1980s, but still more than 1.5x lower than conditions in the 1960s.

13 Hortsmann, U. and A. Davidov, 2004. Effects of Reduced Danube Nutrient Discharge on the Northwestern Black Sea Ecosystem, ICPDR – UNDP/GEF workshop documents: Nutrients as Transboundary Pressure in the Danube River Basin, Jan 2004, Sofia, Bulgaria.

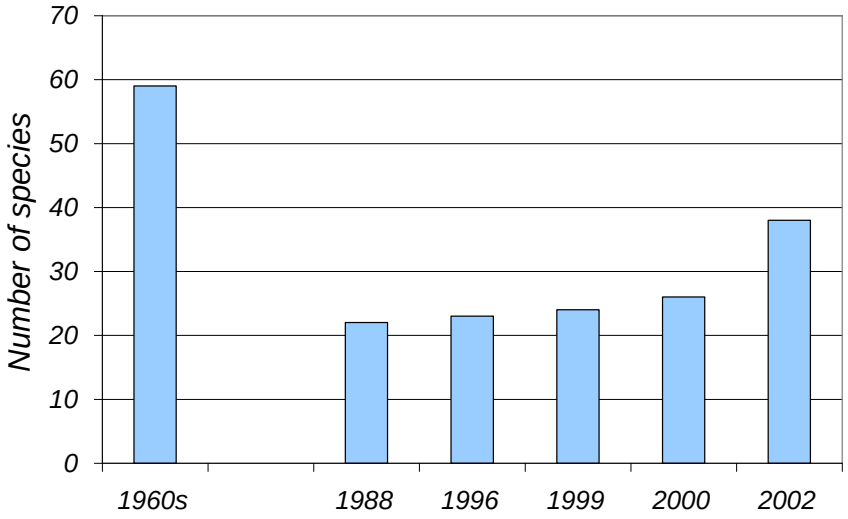

Figure10: Number of macro benthic species in front of the Danube delta (10 stations on 3 transects off Constanta, data from C. Dumitrache, IRCM Constanta)

Source: ICPDR Roof Report, March 2005

Eutrophication has not been the only factor behind the loss of fisheries in the Black Sea. Over-fishing and introduction of invasive species have contributed to the economic crisis in the Black Sea fisheries industry. High levels of pollution in the 1970s and 1980s coincided with advances in the fishing industry, resulting in unregulated overexploitation. The number of exploitable fish species dropped from 26 to just six, over a period of only two decades (Mee, 1997[14]).

Sometime in the mid-1980s, a jellyfish-like organism *Mnemiospsis Leidyi* was inadvertently introduced to the sea, probably from release of ballast water from ships. Until recent years *Mnemiopsis* had no predators in the Black Sea and hence was free to gorge on zooplankton and fish larvae, seriously disrupting the fishery balance. However, some years ago another gelatinous organism feeding on *Mnemiopsis*, *Beroe Ovata*, was also unintentionally introduced into the ecosystem. However, at the peak of the *Mnemiopsis* population in the early 1990s, there were a staggering one billion tons of them in the Black Sea, more than the world's annual fish catch (Mee, Black Sea Strategic Action Plan). By the late 1990s, *Mnemiopsis* started to decline, but remain a persistent impediment to the recovery of the Black Sea ecosystem.

From the ICPDR's WFD Roof Report, the middle and lower reaches of the Danube are classified to be "at risk" (of not achieving good ecological status) from hazardous substances pollution. Based on water quality monitoring results (TNMN stations), cadmium and lead concentrations exceed target values in many locations downstream from rkm 1071 (Roof Report, 2005 Mar). Interestingly, Cd and Pb levels in sediment core samples collected from the Western Black Sea were not excessive (de Mora[15]).

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14 Mee, L., 1997. The Black Sea Today. Symposium II: Black Sea 1997: "The Black Sea in Crisis", Istanbul, September 1997.

15 de Mora S. , Jul 2004. Assessment of Marine Pollution in the Black Sea Based on the Analysis of Sediment Cores. IAEA – Marine Environmental Laboratory, Principality of Monaco. Istanbul, July 2004.

4. PERSPECTIVES FOR 2005-2007 AND BEYOND

The positive ecosystem trends observed in the Western Black Sea in recent years are largely due to the sudden decrease in pollution emissions following the collapse of the former communist regimes in Central and Eastern Europe. The series of regional GEF projects and national pollution reduction efforts should have also played a role and will play a larger role in the future with the IFNR in sustaining the water quality and environmental gains that have already been achieved. Coincident with the recovery of regional economies, pollution discharges from some sources will increase. It is unlikely that emissions will go back to those of the Soviet era, but maintaining mid-1990s levels will be a challenge. With introduction of the European Common Agricultural Policy in the East European EU-accession countries, a serious risk of continued nutrient stress on the Danube/Black Sea ecosystem remains.

Based on experience gained in Western Europe and North America, economic performance of the countries will have the highest impact on pollution discharge levels. Adherence to the "polluter pays principle" will impact different countries in different ways moving forward. For example, countries struggling to maintain economic outputs and employment levels will not embrace changing agricultural practices beyond those subsidized by EU donors, especially if that change involves reducing output and/or increasing costs.

Ensuring the sustainability of the Partnership results will depend on enhancing integrated land and water resource management, with an eye on both improving environmental conditions and economic efficiency.

Despite this obvious increasing stress in the Danube River Basin and Black Sea, there are many significant achievements (some of which have been highlighted in this report, such as improved wastewater treatment capacity, implementation of new policies and regulations, better information for and involvement of the public and other stakeholders, etc.) that will assist with mitigating the increasing pressures and it is important that these are further developed. Some specific focus areas for GEF-supported efforts planned for 2005-2007 include:

- Increase outreach efforts to the agriculture and industrial sector, promoting BAP and BAT.
- Further capacity building, particularly using Inter-Ministerial Coordinating Mechanisms as a facilitating platform.
- Further development of economic instruments and promotion of investment opportunities in pollution control and ecosystem protection.
- Enhance public participation efforts, through expanded small grants programmes to the NGO community.
- Continue fostering programmes to phase out P detergents.
- Harmonize monitoring and evaluation efforts between the Danube River Basin and Black Sea coastal countries.
- Reinforce collaboration with complementary initiatives.

Annex 1: Status of Investments in the Dablas Task Force Project Pipeline

Pipeline Stage	Project	Country	Progress Reported in November 2004
1	Bucuresti (RO-M-18)	Romania	ISPA TA signed for project preparation. EIB loans of EUR 33 million for Phase 1 and EUR 47 million for Phase 2 under approval. EBRD loan of EUR 10 million foreseen. Grants of EUR 70 million from EC-ISPA and EUR 106 million from cohesion fund foreseen.
2	Banja Luka (BA-M-03)	Bosnia and Herzegovina	EBRD initially concept reviewed the project in 2003. Subsequently WB financed a loan under its BiH Municipal Loan Programme. Discussions with the Water Company and City have restarted regarding complementary financing from EBRD.
2	Belgrade	Serbia and Montenegro	Steering committee grouping IFIs and bilateral donors co-ordinating project. Feasibility study financed by EU (European Agency for Reconstruction) nearing completion. EIB following project. EBRD has concept cleared a water and waste water concession. Austria has made a pre-decision on smaller part of Belgrade project.
3	Sarajevo (BA-M-02)	Bosnia and Herzegovina	Feasibility study of WWTP for Sarajevo City carried out in 1999, financed by JICA EBRD: Sarajevo is still interesting but the city has problems with the necessary increased tariffs KfW and World Bank are doing preparatory work
3	Tuzla (BA-M-01)	Bosnia and Herzegovina	Tuzla confirmed to EBRD interest in Project combining operations of three municipalitites to solve water and wastewater problems in Modrac Lake. DISF consultants will complete feasibility study 1st Qtr 2005.
3	Russe	Bulgaria	Russe is included in a ISPA TA for water, approved in the beginning of 2004. Current feasibility study available from 1992 (in Bulgarian) which needs updating. Russe among six cities under EBRD Bulgaria Water and Wastewater Facility aimed at providing co-finance for ISPA project. Funding also being explored through the Danubian Municipalities
3	Karlovac	Croatia	Study by Danube Investment Support Facility to prepare investment in the City's short term priority sewerage and sewage treatment investment needs nearly completed under aegis of EBRD. EIB considering co-financing along with Vukovar water and wastewater project being proposed to DISF for preparation.
3	Osijek	Croatia	Study by Danube Investment Support Facility to prepare investment in the City's short term priority wastewater collection and treatment infrastructure nearly complete under aegis of EBRD. EIB considering co-financing along with Vukovar water and wastewater project to be proposed to DISF for preparation.
3	South Buda (HU-M-04)	Hungary	ISPA TA approved for preparation of project and on the list for 2004-2006 Cohesion Fund
3	Baia Mare (no ref)	Romania	ISPA TA signed for project preparation and ISPA application received in July 2004 and approved and send for signature in December 2004 EIB co-financing
3	Ordu (No ref)	Turkey	Feasibility study to be financed to municipality itself
4	Ravda (no Ref)	Bulgaria	Private funding being explored. Project is not developed enough for IFI interest but remains a Bulgarian priority. No studies carried out to date
4	Novi Pasat (no Ref)	Bulgaria	Project is not developed enough for IFI interest but remains a Bulgarian priority. Pre-feasibility study done in 2002, detailed design developed in 1990.
4	Berkovitza (BG-M-22)	Bulgaria	Project is not developed enough for IFI interest but remains a Bulgarian priority. A pre-feasibility study was carried out in 2002 (in Bulgarian).
4	Vidin (BG-M-16)	Bulgaria	Vidin is in a future ISPA TA for solid waste, to be approved by the beginning of 2004. A WWTP site has been identified.
4	Batumi (No ref)	Georgia	Overall value of the investment likely to be 20 million Euro. No other information available. EBRD: very little potential due to creditworthy-ness.
4	Town Cahul (MD-M-01)	Moldova	No information available EBRD: not interested
4	Town Falest (MD-M-05)	Moldova	No information available EBRD: not interested
4	Poarta Alba (No ref)	Romania	EBRD: Poarta Alba investments could be considered as part of an extension to an on-going investment programme in Constanza. However Poarta Alba is small and could not qualify on its own. A pre-feasibility study has been carried out and 20,000 Euro has been set aside for a feasibility study by R.A.J.A. Constanta.
4	Trabzon (No ref)	Turkey	No information available
4	Rize (No Ref)	Turkey	No information available
4	Chernivtsi (UA-M-02)	Ukraine	A study was carried out in 1996
4	Mykolaiv (No ref)	Ukraine	Some out of date pre-feasibility studies available from the early 90's
4	Crimea (No Ref)	Ukraine	No information available

Annex 2: Planned Schedule for Approximation of National Legislation to EU Legislation

Country	**2000/60 EC** Water Framework Directive	**EC 91/271/EC** on urban waste water treatment, amended as 98/15/EC 1998	**EC 91/676/EC** Nitrates Directive on the protection of waters against pollution caused by nitrates from agricultural sources	**EC 80/68/EC** on the protection of ground water	**96/61/EC** IPPC Directive on integrated Pollution Prevention and Control	**EC 98/83/EC** on the quality of water for human consumption and household needs	**EC 76/464/EC** on dangerous substances	**EC 73/404/EC** on biodegradability of detergents	**EC 78/659/EC** on the quality of fresh water needing protection or improvement in order to support fish life
DE	2005	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance
AT	2005	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance	Full compliance
CZ	2005	2010	2006	Full compliance	Full compliance	Full compliance	2009	Full compliance	2009
SK	2005	2010	2008	2005	2011	2008	2006	2000	2004
HU	2005	2010	2008	2005	2015	2008	30.09.05		
SI	2005	2008	2008	2007	2012	2008	30.09.05		
HR	2005	--	--	--		--	--	--	--
BA	--	--	--	--		--	--	--	--
CS	--	--	--	--		--	--	--	--
BG	2005	2015			2012				
RO	2005	2022	2014		2015	2022	2015		2010
MD	--	--	--	--		--	--	--	--
UA	--	2010	2003	2003			2005		