

Proposed Bulgaria Wetlands Restoration Project

Summary Project Concept Note

A.	Country:	BULGARIA	
B.	Project Name & FY	Bulgaria Wetlands Restoration Project	
C.	Focal Area	International Waters and Biodiversity	
D.	GEF Operational Program:	OP 8 / 9 and OP 2	
E.	GEF Implementing Agency:	World Bank	
F.	Country Implementing Agency:	Ministry of Environment	
G.	Total Project Cost:	tbd	
H.	Financing Plan:	GEF Grant	US \$ 3 million
		other	Danish EPA financing being explored
		Total	tbd

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August 6, 1999¹

Background

1. The Danube River is one of the largest and most important for Central and Eastern Europe. With its headwaters in the Black Forest of Germany, it flows about 2900 kilometers through 13 countries, including cities such as Vienna, Budapest and Belgrade, draining 817,000 square kilometers and includes about 300 tributaries. The lower Danube is also one of the most polluted rivers in Europe. It contributes approximately 60% of the nutrient load (leading to eutrophication) of the Black Sea. Approximately 60% of the nitrogen compounds and about 40% of the phosphorous compounds originate from indistinct sources.
2. In response to growing concerns about the pollution of the Danube, the principal riparian countries joined to draw up the Danube River Protection Convention, signed in 1994 and entering into force 8 months ago. Implementation of the Convention is the responsibility of the International Commission for the Protection of the Danube River (ICPDR). (The Black Sea countries have entered into similar arrangements.)
3. One of the major objectives of the DRPC is to reduce nutrient loads and concentrations in the river. Significant analytical work on the root causes, the sources, and the transboundary impacts has been done on the Danube, financed by the GEF, the EU and other donors. The resulting Strategic Action Plan and Transboundary Diagnostic Analysis provide the basis for selecting priority investments which have high potential for reducing nutrient loads flowing into the Black Sea.
4. The TDA includes an analysis of the potential impacts on the Danube of several types of interventions, including floodplain and wetland restoration. While acknowledging that floodplain restoration should be undertaken in conjunction with other measures such as waste water treatment facilities and industrial water treatment, the critical role wetlands and floodplains can play has been well documented. Floodplains are high

efficiency water purifiers during both flood and dry periods. The self-purification action is a complex interaction of physical (sedimentation, filtration, absorption), microbiological (denitrification) and biological processes (nutrient reduction through aquatic micro and macrophytes and the the roots of terrestrial vegetaion). According to several studies, floodplains can retain up to 90% of nitrates and up to 50% of phosphorous passing through.

5. Wetland restoration are fairly low-cost interventions with potentially high returns. The ICPRD commissioned a special study to identify high-priority wetlands in the Danube Basin. Financed under the GEF Pollution Reduction Program, WWF/Danube Program first defined the criteria for selecting restoration sites, then analyzed former wetland sites against these criteria. These included:
 - Ecological potential: (a) floodplain type; (b) floodplain width; and (c) landuse data
 - Nutrient reduction potential.
6. Based on these criteria, WWF identified approximately 16 former floodplains with potentially high environmental benefits accruing from restoration. These sites form part of WWF's Lower Green Danube Corridor Programme. Among the top-ranked are three sites in Bulgaria, all of which border larger potential restoration sites in neighboring Romania. One Bulgarian site is a proposed Ramsar site, and others also contain globally significant species of birds and fish.
7. **Government request.** The Government of Bulgaria has taken a lead role in efforts to implement a network of wetland and floodplain sites in the Lower Danube. The Ministry of Environment which represents Bulgaria on the ICPRD has worked closely with WWF to prepare the restoration program. The Government initially requested GEF assistance (through UNDP) as part of WWF's proposal for the Green Danube. This request was not approved by the GEF SEC. Subsequently, the Bank, WWF and the Ministry agreed that since the proposed project was an investment operation which met the International Waters (OP8) eligibility criteria, we should move ahead with project development on a bilateral basis, with the understanding that the three other Lower Green Danube countries (Romania, Ukraine, Moldova) would also propose restoration projects in the coming months.. The proposed project also meets the proposed eligibility criteria for the Nutrient Reduction Strategic Partnership, and would be considered a model to be replicated in other Danube countries

Objective

9. The objective of the project would be to reduce nutrient loads in the Danube River and Black Sea Basins. This would be achieved by restoring floodplain sites on the Danube and on the Black Sea, thus enabling them to perform their ecological functions. The national wetland restoration plan would be part of an overall Bulgarian nutrient reduction strategy.

Project Description

10. The project would finance restoration activities in three priority sites on the Danube, all of which have corresponding restoration sites in Romania. The sites are: Oriahovo (1,200 ha.); Bulgarian Danube Islands and floodplain west of Belene (8,000ha.); and Tutracan (5,000ha.). Civil works include: removal of parts of dikes, construction of sluices for emergency control, removal of existing levees, reconnection of former river branches to the Danube river dynamics, restoration of a former floodplain lake. The planned technical interventions will be designed to enhance and protect the globally significant biodiversity found in the areas.
11. For the wetlands in the Black Sea, the technical work undertaken as part of the Wetland Analysis (1997, Black Sea Environmental Programme) will form the basis for selection of wetland sites. The high-priority areas identified in those studies need to be evaluated against the criteria of nutrient reduction (in addition to biodiversity). Site selection and design of restoration interventions will take place during project preparation.
12. Monitoring of water quality, or wetland health, and biodiversity status will be critical elements of this project. Lessons learned from a Bank/GEF financed operation in Poland which also addresses non-point source pollution indicate that monitoring activities are difficult to design, implement and get updated. Given that the Bulgaria project will likely serve as a model for many others in the Danube and Black Sea, it will be well worth the extra time and money to design an appropriate and timely system for monitoring project impacts.

Global benefits

13. Preliminary analysis indicates that total nutrient reduction from the three sites could reach 2,200 tons /year nitrogen and 284 tons/year phosphorous. Biodiversity

Reduction in the Danube/Black Sea Basins. It has the support of the Bulgarian Ministry of Environment and the ICPDR.

Project Cost/ Co-financing

15. Project incremental costs are currently estimated at \$3m. Discussions are underway with the Danish EPA to finance sustainable development activities in at least one project site (Tutracan) which would build on GEF project interventions. Under consideration are assisting the local community to re-establish the previously successful local fishing industry. With the expected increase in fish from the cleaner floodplain areas, the Danes would help the local (extant) fishing cooperative to formulate a business plan and investment strategy. The total project costs will be estimated in accordance with the findings of a current mission to Bulgaria.

Project Development Strategy

16. Based on preliminary review within the Bank, the project will be expanded from its original design focussing exclusively on the Danube Wetlands to a nationwide wetland restoration plan for both the Danube and Black Sea. Formulation of this plan will require the collaboration of several ministries, including Environment, Agriculture, Justice, and other agencies dealing with land ownership and land use. Project Development Funds (PDF B) will be requested to begin work on consolidating this plan. (This essentially requires consolidating studies undertaken by both the Black Sea and Danube programs over the past eight years.)
17. The project concept benefits tremendously from the analytical work undertaken by WWF as part of their Danube Green Corridor Program and by the GEF Pollution Reduction Programme. The scientific basis for project interventions is well-documented. Preliminary technical studies are completed for the Danube interventions, including historical, topographic and detailed site maps. Efforts to involve the community are underway; town meetings have been held with local communities to determine interest in (re)starting the fishing industry. The Black Sea technical work is not as advanced; a review of the status of analytical work will begin immediately. It is expected that the Danube restoration activities will precede the Black Sea activities. Lessons learned in this first phase will be reflected in the Black Sea work.