

Document of
The World Bank

FOR OFFICIAL USE ONLY

Report No: 19911

IMPLEMENTATION COMPLETION REPORT

REPUBLIC OF UKRAINE

**DANUBE DELTA BIODIVERSITY PROJECT
GET GRANT 28654**

November 22, 1999

Environmentally and Socially Sustainable Development Sector Unit
Europe and Central Asia Region

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

CURRENCY EQUIVALENTS

(as of July 1999)

Currency Unit	=	Hrivnya (UAH)
US\$1	=	4.1

NOTE: On September 17, 1996, the Ukrainian Karbovanet was redenominated by a factor of 100,000 and renamed to the Ukrainian Hrivnya.

AVERAGE OFFICIAL EXCHANGE RATES

1994	1995	1996	1997	1998	1999
.328	1.473	1.829	1.862	2.440	3.756

WEIGHTS AND MEASURES

Metric System

ABBREVIATIONS AND ACRONYMS

CBNNPRA	Central Board of National Nature Park and Reserve Affairs
DBR	Danube Biosphere Reserve
DBRA	Danube Biosphere Reserve Authority
DPA	Danube Plavny Reserve Authority
DDBR	Danube Delta Biosphere Reserve
GEF	Global Environment Facility
GET	Global Environment Trust
GIS	Geographic Information System
ICR	Implementation Completion Report
LCB	Local Competitive Bidding
MEPNS	Ministry for Environmental Protection and Nuclear Safety
NAS	National Academy of Science
PIU	Project Implementation Unit
RIZA	Dutch Institute for Inland Water Management and Waster Treatment, Directorate General of Public Works and Water Management
SGP	Small Grants Program
SZP	Stentsovsko-Zhebrianski Plavny
WWF	World Wildlife Fund
ZP	Zhebrianski Plavny

FISCAL YEAR OF UKRAINE

January 1 - December 31

Vice President:	Johannes Linn, ECAVP
Acting Country Director:	Lily Chu, ECC11
Sector Director:	Kevin M. Cleaver, ECSSD
Sector Leader:	John Hayward, ECSSD
Responsible Team	Phillip Brylski, Alexei Slenzak (ECSSD)

FOR OFFICIAL USE ONLY

IMPLEMENTATION COMPLETION REPORT

REPUBLIC OF UKRAINE

DANUBE DELTA BIODIVERSITY PROJECT

PREFACE

GET GRANT 28654

Executive Summary

Contents

i-iv

PART I. PROJECT IMPLEMENTATION ASSESSMENT

A.	Introduction	1
B.	Statement/Evaluation of Objectives	1
C.	Achievement of Objectives	2
D.	Major Factors Affecting the Project	10
E.	Project Sustainability	11
F.	Bank Performance	12
G.	Recipient Performance	12
H.	Assessment of Outcome	12
I.	Future Operations	13
J.	Key Lessons Learned	14

PART II. STATISTICAL TABLES

Table 1:	Summary of Assessments
Table 2:	Related Bank Loans/Credits
Table 3:	Project Timetable
Table 4:	Grant Disbursements: Cumulative Estimated and Actual
Table 5:	Key Indicators for Project Implementation
Table 6:	Key Indicators for Project Operation
Table 7:	Studies Included in Project
Table 8A:	Project Costs
Table 8B:	Project Financing
Table 9:	Economic Costs and Benefits
Table 10:	Status of Legal Covenants
Table 11:	Compliance with Operational Manual Statements
Table 12:	Bank Resources: Staff Inputs
Table 13:	Bank Resources: Missions

APPENDICES

- A. Mission's aide-memoire
- B. Recipient's comments on the ICR
- C. Recipient's Contribution to ICR
- D. IBRD Map 25412

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

IMPLEMENTATION COMPLETION REPORT

REPUBLIC OF UKRAINE

DANUBE DELTA BIODIVERSITY PROJECT

GET GRANT 28654

Preface

This is the Implementation Completion Report (ICR) for the Ukraine Danube Delta Biodiversity Project, for which the GET Grant 28654 in the amount of SDR 1.1 million (US\$1.6 million equivalent) was approved on June 21, 1994 and made effective on August 4, 1994.

The Grant was closed on June 30, 1999, following a six-month extension to the original closing date of December 31, 1998. It was fully disbursed, and the last disbursement/recovery took place on June 4, 1999.

The ICR was prepared by Phillip Brylski and Alexei Slenzak (ECSSD) and reviewed by Gottfried Ablasser, ECSSD Portfolio Manager. The Recipient's comments on the ICR and contribution to the ICR are included as appendices B and C, respectively.

Preparation of this ICR began during the Bank's completion mission from April 12-17, 1999. It is based on material in the project files and discussions with the staff of the Ministry for Environmental Protection and Nuclear Safety (MEPNS) engaged in the project, the Project Implementation Unit (PIU), NGOs, and other individuals and organisations involved in the project.

IMPLEMENTATION COMPLETION REPORT

REPUBLIC OF UKRAINE

DANUBE DELTA BIODIVERSITY PROJECT

GET GRANT 28654

Evaluation Summary

Introduction

i. The Danube Delta is the second largest delta in Europe, covering about 564,000 hectares, with 122,000 hectares in Ukraine and the rest in Romania. Over the last century, the wetlands have been degraded by the construction of dikes and large scale hydrological works but maintain significant social, economic, and biodiversity values. The original Danube Delta GEF project planned assistance only to the Romanian part of the delta because Ukraine was not yet a member of the Bank. During the project's identification, the scope of the project was amended to provide parallel support to the Danube Plavny Reserve Authority (DPA) in Ukraine, particularly to raise the level of national and international interest in the protection and management of the Ukrainian part of the delta.

Project Objectives and Components

ii. *Objectives:* The project objective was to protect and enhance the Ukrainian part of the Danube Delta ecosystem and contribute to biodiversity conservation within the delta. The project objective and investments emphasized improvements in management of the protected area at the local level and the capacity building needed to implement the project and continue the activities in the operational phase. The project's focus on creation of the biosphere reserve and skills and methods for its improved management was appropriate. The Completion Mission team and the Recipient agreed that the project was well-designed and its activities and expenditures were appropriate for achieving the objectives.

iii. *Components:* The project investments were delivered through eight components designed to strengthen the Danube Plavny Authority and the warden service, improve monitoring and database management, initiate the restoration of key wetlands, improve public awareness, establish the Danube biosphere reserve, facilitate the reserve's participation in regional initiatives, and establish mechanisms to assist with financing of the reserve's recurrent costs in the operational phase.

Implementation Experience and Results

iv. *Achievement of Objectives:* The project was implemented as planned and achieved its objectives satisfactorily. The Ukraine Danube Biosphere Reserve was established, and improved techniques and participatory methods for the protection and management of its biodiversity were implemented. A more proactive approach to protected areas management in Ukraine was established, and the capacity of the Reserve Authority to implement the management plan in collaboration with local users was strengthened. The project fostered cooperation with Romania, especially on technical exchanges. At the end of the project, a Romania-Ukraine transboundary biosphere reserve was

established. The project also led to collaboration and partnerships on delta conservation/natural resource management issues with organizations in central and western Europe.

v. *Major Factors Affecting the Project:* Two factors affected the project positively. The first was the Recipient's prior experience with Bank projects, gained through implementation of the GEF-financed Transcarpathian Biodiversity Protection Project and a National Biodiversity Strategy and Action Plan. The second was the strong interest by international organizations such as the Dutch General Directorate for Public Works and Water Management (RIZA) and World Wildlife Fund-International in forming partnerships with Ukraine stakeholders to implement the project. Two factors slowed project implementation. The first was the difficulties encountered in constructing the headquarters building, mainly attributable to a lack of private sector experience in construction and government regulations. The second was the new regulations on the use of foreign bank accounts by both private and public sector organizations, which resulted in temporary freezing of the Special Accounts for most Bank projects in the final year of implementation. Finally, the project was implemented in a period of severe national budgetary problems, which reduced staff morale. Although these budgetary problems promoted a cautious, risk averse approach to management decisions with fiscal impacts, they also produced a proactive approach to developing income generating activities such as tourism.

Project Sustainability and Future Operations

vi. *Sustainability:* The main stakeholders' commitment to continue the project activities is strong and key benefits of the project will continue to be achieved in the operational phase with the assistance of government financial support. Although the GoU's budgetary support for the Danube Biosphere Reserve was leveraged by the GEF project and is expected to continue through the operational phase, the cost of implementing the operational plan will require additional external support. The main reason for this is Ukraine's difficult economic conditions and their impact on state budgets for all protected areas. There are indications that grant support will be made available by other donors, but this is not certain. Therefore, while key aspects of the project are sustainable, there remains some uncertainty over whether the project as a whole is sustainable. To help meet the challenge of financial sustainability, the biosphere reserve gained approval for the right to operate a revenue account, fed by revenues from fines, resource use fees, fee-paying visitors, and donations, and has had success in applying for small grants. Each of these activities has been designed to generate a modest supplement to the budget that will contribute to project sustainability.

vii. *Future Operations:* The Recipient prepared a costed workplan for priority activities to be implemented in the operational period from 1999 to 2002 that focuses on reserve infrastructure and resource management, wetlands restoration, research and monitoring, public education, regional and international cooperation, and tourism development. An estimated US\$150,000 will be required annually to finance the plan over the next 3.5 years. Excluding salaries, the reserve can expect to cover approximately one-third of the investments needed from the Academy of Sciences. The reserve will attempt to finance the remaining two-thirds from income generating activities and external sources.

Bank and Borrower Performance

viii. *Bank Performance:* The Bank's performance was satisfactory throughout preparation and implementation. The project was well prepared: the project design was fully appropriate to the project

objectives, and the Recipient was comfortable with the level of detail on project activities, budget, and implementation arrangements found in the project document. Early in implementation, the Bank provided assistance with procurement, focused on human resources development activities that were useful in implementing the project and preparing the Recipient for the operational phase, and assisted with facilitating partnerships with international organizations interested in the project. The Bank was responsive to the additional supervision needs not foreseen during preparation, by accessing trust funds for technical issues and training. The project was continuously supervised from project launch through completion by a technical specialist experienced with the needs of the project and with Ukraine.

ix. *Recipient Performance:* The Recipient's performance was satisfactory. The grant was disbursed over a five year period and its completion required one six-month extension. The legal covenants were continuously enforced. The project was implemented largely as planned, with small adaptive changes made in consultation with the Bank. The principal beneficiary of the project was the Danube Plavny Authority (re-named the Danube Biosphere Reserve Authority at the end of the project), which consisted of a relatively small staff with nearly no experience with bilateral or multilateral financed projects. The reserve staff performed well in adapting its previous mandate of monitoring and protection functions typical of a strictly protected area to include wetland management and public education and involvement. The DPA was assisted by the MEPNS and its Central Board of National Nature Park and Reserve Affairs, the Academy of Sciences, and the PIU. The Academy of Sciences contributed modest budgetary resources, substantial technical support for the scientific program, and oversight with regard to the Man and the Biosphere Program. The performance of the MEPNS, the executing agency, was satisfactory in facilitating all aspects of the project. The PIU's efforts and results in procurement and as facilitators of project implementation were satisfactory, particularly in the face of the country's extensive regulations and procedures.

Key Lessons Learned

- x. The key lessons learned from the Recipient's and Bank's perspectives are:
 - a. Well-planned public education and awareness activities are needed early in the project to get the public involved in a meaningful way. One way to catalyse the education and awareness activities would have been to initiate the project with an awareness and education activities through the NGO development and small grants program.
 - b. The creation of a biosphere reserve should be undertaken in phases to allow the administration and local communities opportunity to understand and adequately plan for its added financial and managerial responsibilities.
 - c. Future projects should seek ways to simplify Ukrainian requirements and procedures early in project implementation, in order to avoid delays in its progress.
 - d. If the protected areas administration is to work effectively with local communities, technical studies to guide sustainable use of reserve resources (e.g., hunting and fishing) should be undertaken early in project implementation, in collaboration with local users and linked to public education activities.

- e. **Continuity in supervision responsibility contributes greatly the relationship between the Bank and its client.**

IMPLEMENTATION COMPLETION REPORT

REPUBLIC OF UKRAINE

DANUBE DELTA BIODIVERSITY PROJECT

GET GRANT 28654

Part I. Project Implementation Assessment

A. Introduction

1. The Danube Delta, one of Europe's last and largest natural wetlands, covers 564,000 hectares (ha), 122,000 within Ukraine and 442,000 in Romania. The reed beds, riparian forests, dunes and the open waters of the maze of tributaries of the Danube River provide critical wintering and feeding habitat for many threatened species such as the pygmy cormorant, red-breasted goose, and several species of threatened sturgeon. The delta ecosystem also plays a role in environmental management of a major international water by acting as a biological filtering system for water flowing from the Danube river system into the Black Sea.
2. The delta ecosystem has been a source of natural resources and income to human populations for over 500 years. Over the last 50 years, fish harvests have significantly declined. The causes of these declines are thought to be habitat loss and degradation as a result of large scale hydrological works (dams, dikes, etc.), changes in Black Sea ecology as a result of its eutrophication, and inappropriate resource management practices.
3. The original Danube Delta GEF project planned assistance only to the Romanian part of the delta because Ukraine was not yet a member of the Bank. During the project's identification, the scope of the project was amended to provide parallel support to the Danube Plavny Reserve Authority (DPA) in Ukraine, particularly to raise the level of national and international interest in the protection and management of the Ukrainian part of the delta.

B. Statement/Evaluation of Objectives

4. The project objective was to protect and enhance the Ukrainian part of the Danube Delta ecosystem and contribute to biodiversity conservation within the delta. During the completion mission, the Recipient and the Bank agreed that this project objective was appropriate. The Recipient noted that a more specific objective used during implementation was to establish the Ukraine Danube Biosphere Reserve and initiate management measures for the protection and sustainable use of the delta ecosystem.
5. The project investments were delivered through the following components:
 - i. *Danube Plavny Authority Strengthening.* This component focused on improving the capacity of the DPA to implement the project and manage the biosphere reserve through staff increases, human resources development, infrastructure and equipment.

- ii. *Warden Strengthening.* This component called for strengthening the warden service through increased staffing, training, and provision of infrastructure and equipment.
- iii. *Monitoring and Database Management.* This included development of monitoring and applied research activities, and data management and a GIS.
- iv. *Wetland Restoration.* The project was to finance three small pilot wetland restoration activities and small feasibility studies for the restoration of two sites with histories of intensive economic and recreational use.
- v. *Public Awareness.* This component included activities for raising awareness of the importance of the Delta ecosystem in local communities, and encouraging international cooperation on Danube Delta and Black Sea conservation issues.
- vi. *Biosphere Reserve Establishment.* Under this component, the Danube Biosphere Reserve would be established, focusing in the first phase on protecting three priority areas (Kiliya Delta, Stensovsko-Zhebrianski plavny, SZP, and Yermakov Island).
- vii. *Regional Initiatives and Coordination.* This component would facilitate participation of the DPA in training workshops related to development of the Black Sea Biodiversity Strategy, cooperation with the Romanian GEF Danube Delta Project, and other international initiatives.
- viii. *Endowment Fund.* This component would finance technical assistance for establishing a Trust Fund for financing recurrent costs of the biosphere reserve.

C. Achievement of Objectives

6. The project objective and investments emphasized improvements in management of the protected area at the local level and the capacity-building needed to implement the project and continue the activities in the operational phase. The project's focus on creation of the biosphere reserve and on building skills and methods for its improved management was appropriate. The completion mission team and the Recipient agreed that the project was well-designed and its activities and expenditures were appropriate for achieving the objectives.

7. The project's results and impacts are described below and summarized in Table 1. The project was implemented largely as planned and achieved its objectives satisfactorily. The Ukraine Danube Biosphere Reserve was established, and its staff was strengthened through an increase in numbers and through training technical assistance activities which introduced international best practices in wetlands management. The Danube Plavny Authority's approach to working with local user groups to gain consensus on management of the Stensovsko-Zhebrianski Plavny, along with the environmental education and NGO training/small grants program, improved support among local villagers in the biosphere reserve's mission. The project fostered cooperation with Romania, especially on technical exchanges. At the end of the project, a Romania-Ukraine transboundary biosphere reserve was established. The project's modest accomplishments in the restoration of Stensovsko-Zhebrianski

Plavny were influenced by a delay in establishment of the biosphere reserve and by the time needed to develop consensus among Ukrainian stakeholders on how to best manage this site.

8. **Danube Plavny Authority Strengthening.** This component focused on improving the capacity of the DPA to implement the project and manage the biosphere reserve through an increase in staff, their professional development, and provision of infrastructure and equipment necessary to implement the project.

9. Under the project, the Academy of Sciences of Ukraine was expected to increase the number of wardens and scientific staff to adequately manage the expanded reserve staff, from 18 (in 1993) to 50. The realized increase in staff occurred through the addition of wardens (now at 13) and several higher level staff (GIS, environmental education, ecotourism development). The project design anticipated that expansion of the protected area, zoning recommendations, and preparation of management plans would require scientific input beyond what could be managed by the small reserve staff in place at the time. Consequently, the project contracted specialists to assist in preparing technical reports and the management plans. For each of the research teams engaged in these activities, small teams were formed by the reserve staff and their consultants, so as to provide technical assistance to the existing reserve staff and ensure continuity of the monitoring and research activities in the operational phase.

10. *Human resources development.* The project was highly successful in building capacity of reserve staff and consultants to implement the project and to expand the results in the operational phase.

- i) *Wetlands Management Training.* The project originally envisioned two wetlands training activities: The first, facilitated by the International Wetlands Research Bureau (IWRB; now Wetlands International), concentrated on management of water resources, reedbeds, and wildlife in the Stensovsko-Zhebrianski Plavny and restoration techniques. The second, several study tour/training workshops, was hosted by the Dutch General Directorate for Public Works and Water Management (RIZA).

These activities led to a number of additional training opportunities financed by the project and by international partners. With regard to the latter, the signing of a Memorandum of Understanding between the Danube Plavny Authority and RIZA in 1995 initiated a series of excellent training opportunities in wetlands management and GIS. This included collaboration among the DPA, the Ukraine Institute for the Biology of Southern Seas (IBSS), and RIZA in preparing a hydrology model for the Stensovsko-Zhebrianski Plavny. The hydrology model was essential for understanding the restoration options for SZP, now included within the biosphere reserve. The additional technical assistance and training delivered under the project amounted to an additional 360 person days, delivered through cofinanced and parallel activities and programs.

- ii) *GIS and conservation biology.* Selected staff participated in a series of GIS training courses between 1995 and 1999, first in collaboration with several other GEF-financed projects and later through training financed by RIZA. RIZA's assistance, and provision of a PC-GIS, was used by the IBSS in analyzing hydrobiological data on SZP

that have been useful in management planning. DPA staff also participated in a 'biobusiness' training workshop that focused on biodiversity-based economic activities, which was jointly held in 1995 with the staff of the Bank/GEF Belarus and Ukraine Transcarpathian biodiversity protection projects.

- iii) *Language training.* As a result of English language training classes, some of the staff are now able to communicate and collaborate with individuals and groups who do not speak Russian or Ukrainian. This will facilitate further international collaboration, and will be useful in assisting the reserve staff to communicate with foreign visitors to the biosphere reserve in the operational phase.

11. The project financed key improvements to the DPA infrastructure, the most important of which were a headquarters building and warden stations and associated equipment. Construction of the headquarters building met with a number of delays and problems which were eventually resolved by purchasing a privately-built, unfinished building. The building, completed in May 1999, provides a headquarters with sufficient office space for the staff, garage and boat dock facilities, access to the canals for use in reaching the Kilia reedbeds of the biosphere reserve, and limited accommodations for visitors. The original plan was for the headquarters to be built on the outskirts of Vilkovo, but its current location within the village is more conducive to the Reserve's developing role as a socio-cultural and public awareness center for Vilkovo.

12. **Warden Strengthening.** The project provided the warden service with training, facilities, and equipment which improved their effectiveness, elevated their professionalism, and initiated an expanded role for them in reserve management. Early in the project, the Reserve recruited a highly effective chief warden and the staff was increased from 4 to 13 wardens, with roughly half of these attending warden training in the Netherlands and France (Tour du Valet). Later, the entire warden service was hosted by the Romanian Danube Delta Biosphere Reserve Authority for additional training and to promote bilateral cooperation. Also, the Romanian warden team were trained in the DBR. The training lessons were later the subject of periodic 'refresher' training activities organized by the Chief Warden of the DPA and augmented by a training program by the MEPNS. In addition to the training, the project financed the purchase of boats and engines (previously, many wardens used their own), associated equipment (e.g., uniforms and binoculars), and the construction/renovation of four warden stations. The impact of these investments was more effective protection of the Reserve's biodiversity and an expanded role of the wardens in communicating the Reserve's function to the public. The wardens were impressed with the Dutch motto for managing and interacting with visitors: "we should surround ourselves with friends, not enemies". This reflects a more positive approach to visitor management which the Ukrainian wardens are working to adopt.

13. The project financed construction of three warden stations and the renovation of a fourth, all in the remote Kiliya part of the DBR. The stations were constructed as originally planned: to provide basic facilities (sanitation, sleeping, kitchen) for the wardens (while away from home on patrol) with an extra room for fee-paying researchers and occasional tourists. Due to an increase in construction costs beyond what was anticipated in the project budget, only one bird monitoring station (bird blind) was constructed, with a raised trail above the Kiliya wetlands.

14. **Wetland Restoration.** The original design of this component included the restoration of canals within Vilkovo (where the DPA is located), several studies in wetland restoration, and some

small civil works to improve water flows through the SZP. Two adaptive changes were made during its implementation. First, the work plan and budget for dredging canals in the village of Vilkovo was substantially reduced. The project financed the construction of a public dock and the dredging of canals, and most of the planned budget was reprogrammed to training activities and cost overruns for the headquarters building. These investments, though at a lower cost than originally planned, had their intended effect of demonstrating the DPA's interest in working for the benefit of the local community as well as for biodiversity conservation.

15. Second, greater emphasis was placed on wetland management planning. The project provided a small amount of funds (less than \$50,000) to support the restoration of the Stensovsko-Zhebrianski plavni (SZP). The importance of restoring the SZP was recognized during project preparation, and during implementation it became a focus of cooperation between the DPA and two international partners: the Dutch Institute for Inland Water Management and Waste Water Treatment (RIZA) and WWF-International (Greene Danube Program).

16. *Restoration of SZP.* The floodplain of the delta between Kilia and Vilkovo, including fish ponds, pasture and croplands, is largely enclosed by dikes. In this area, only the SZP has retained important natural values, and is one of the most important sites in the Black Sea region for migratory and resident waterfowl. The hydrology of the plavny is entirely regulated and is affected by agricultural runoff from surrounding farmlands.

17. Over the last 30-50 years, the growth of reeds in the plavny has reduced its open water habitat and impeded water flows, and the fisheries and muskrat population traditionally used by the local community have declined. With the declining local economy, up to 200 people regularly fish in and around the SZP, resulting in unsustainable harvesting of fish. In addition to fisheries, the plavny is used by members of the local hunters and sports fishermen association, which contributes to the management of the site.

18. During project preparation, the need was recognized to restore water circulation to the plavny and to undertake proactive management measures to restore habitat productivity, such as controlled burns, grazing, and mechanical removal of the dense reedbeds. The project laid the foundation for the DPA's management of the SZP, by financing wetlands management training, the technical studies needed to study management alternatives and obtain government approval for management measures, preparation of the SZP management plan, and the first stage of its implementation (see Box 1).

19. **Monitoring and Database Management.** The project addressed the need to improve the understanding of baseline conditions of the delta ecosystem and to develop a monitoring program that serves the management needs of the DPA. In the first three years of the project, a scientific program was designed and implemented under the guidance of a Scientific Advisory Group. This three-year program produced good results on the fauna and flora, the research justification for wetland restoration activities and the biosphere reserve boundaries and zoning, resource use studies, and a monitoring system. The detailed studies of the project region also identified species not previously known to occur within Ukraine and those not previously known to science. The results of these research and monitoring activities are being summarized in a monograph "Conservation and Management of Biodiversity of the Danube Biosphere Reserve". This component also included training in GIS, conservation biology, and presentation of research and monitoring results at a number of international conferences/workshops by Ukrainian scientists.

Box 1. Management and restoration of Stenszovsko-Zhebrianski Plavny

The Stentsovsko-Zhebrianskie Plavny (SZP) is one of the most important sites on the Black Sea for birdlife, especially wintering and nesting waterfowl and waterbirds. The reedbeds provide nesting and/or wintering habitat for several globally threatened species such as pygmy cormorants (*Phalacrocorax pygmaeus*) and red-breasted geese (*Branta ruficollis*) and other Ukraine Red Data Book species such as spoonbills (*Platalea leucoridis*) and ibis (*Plegadis falcinellus*).

From the 1930s to the 1960s, some 38,000 ha of the original wetland were drained and converted to farming and fish culture uses. Canals, dikes, and roads were constructed through, and on the perimeter of, the plavny. These changes altered the plavny's natural hydrology, limiting water exchange between the Danube River, the plavny, and the Black Sea. As a result of the hydrological changes, the SZP has changed from a semi-natural, highly productive reedbed, to one with a dense and senescent reedbed with deteriorating water quality and reduced fisheries productivity. The biodiversity values have remained high, but are declining due to the change in habitat structure from a mosaic distribution of reedbeds (patches of reedbeds separated by open channels, with more open water) to a dense reedbed with reduced open water and impeded water flows.

Based on a series of workshops, training sessions, and technical assistance from the Dutch RIZA, the DPA prepared a management plan for the SVP. The two main objectives of the SVP management plan are to: (i) restore the plavny to a functioning, sustainable mosaic wetland with shallow lakes and a network of shallow waterways, and (ii) promote the managed use of the SZP to improve the living standards of the local population in ways compatible with nature conservation.

The Dutch RIZA worked with the IBSS to prepare a hydrological model of the SZP, which, among other outputs, characterised the water management options available to the plavny managers, and could be used to create the following alternative wetland conditions:

- an estuarine wetland where water and salinity levels fluctuate seasonally, mainly as a function of the water level of the Danube River. This water management option would permit the most natural conditions for the plavny, including seasonal wet and dry periods and flooding of the plavny by Black Sea waters during late summer.
- a spring flood riverine wetland where the water dynamics reflect an isolated freshwater wetland connected to the Danube River only during high river discharges, with water levels maintained in the period of low discharge by keeping the outlet sluice gates (to the Black Sea) closed.
- A spring flood estuarine wetland where freshwater levels are higher than an estuarine wetland during peak discharge of the Danube River, but with estuarine conditions through flooding of the plavny by Black Sea waters during late summer.

The management plan for the plavny was adopted by the government and by local landowners and users in 1999. The reserve staff have started implementing the management plan, starting with drying of Zhebrianski plavny and controlled burning of the reedbeds. The reserve and interested international organisations are still discussing the water management measures that are best suited to achieve the plan's objectives. The reserve's short term strategy is to follow the water and habitat management measures to reduce the reedbed growth and improve water circulation – essentially balancing the need to act quickly to reverse the stagnation of the reedbed while maintaining water levels in accordance with the needs of the local community for fishing and muskrat trapping.

20. The component had two principal impacts. First, it gained broader acceptance among scientists and the MEPNS on proactive management activities such as the use of fire in reedbed management. Although local communities set small fires around the margins of plavnis to control reed growth and maintain productivity for grazing, fire was not an accepted tool for plavny management by the Academy of Sciences and MEPNS prior to the project. The permissions needed to initiate pilot burns in Stensovsko Zhebrianski Plavny were obtained based on the results of the research program, which demonstrated that controlled burns increase biodiversity levels in senescent reedbeds and are needed to help maintain biodiversity levels of the Reserve. Second, the investments in research and monitoring activities improved the capacity of reserve staff to implement the operational program and contributed to improved international cooperation on conservation biology issues of the delta.

21. **Biosphere Reserve Establishment.** An important part of the project objective was to create a biosphere reserve and expand the protected area to include the key wetland and upland sites of Stensovsko-Zhebrianski Plavny, Yermakov Island, and additional wetlands of the Kiliya Delta. The key steps in formation of the biosphere reserve are as follows:

- i) The process for creation of the biosphere reserve was initiated in 1994, through a Presidential Decree and its adoption by the Supreme Soviet, of a country-wide protected area program that 'reserved' the territories of protected areas to be developed over a period of years. This step of first 'reserving' territories is standard practise in Ukraine; it initiates a sequence of activities for establishment of the protected area.
- ii) In 1996, the MEPNS completed its reports for establishment of the reserve, drawing on the results of the project-financed scientific program, and initiated its consultations with local and regional government, and kolhozes, state organizations (owners and users), and other stakeholders (hunting and fishing organizations and local peoples). Based on these results, the regional (oblast) government signaled its approval for the biosphere reserve.
- iii) The 'Danube Biosphere Reserve', covering 46,403 hectares, was established by Presidential Decree in 1998. The inclusion of Stensovsko-Zhebrianski Plavny into the DBR occurred by transfer of land from the Ministry of Forestry, and the remaining sites were acquired by 'secondary title', wherein ownership remains with the Ministry of Forestry or local collectives. For all lands in the reserve, the DBA Authority is responsible for ensuring that land uses are consistent with the objectives of biodiversity conservation and sustainable use.
- iv) In February 1999, the Council for the Man and the Biosphere Program (UNESCO) awarded diplomas designating the Ukrainian Danube Biosphere Reserve and the Romanian/Ukrainian Bilateral Biosphere Reserve.

22. The MEPNS attempted to include additional areas within the Danube Biosphere Reserve. The most important of these were adjoining agricultural lands, the runoff from which impact the Stensovsko Zhebrianski Plavny, and Lake Kutai. However, the agricultural kolhozes and local communities resisted inclusion of additional land due to concern over the impact of inclusion in the biosphere reserve on economic activities.

23. The Central Board of National Nature Park and Reserve Affairs (CBNNPRA) considers the current Danube Biosphere Reserve boundaries as a first phase effort, and expects to continue with a second phase in the future (tentatively planned for 2003). The Danube Biosphere Reserve Authority (DBRA) has a pragmatic approach to the issue. First, it understands the concerns of the local population and considers that one of the DBRA's missions is to demonstrate the positive role of the reserve, especially in demonstrating sustainable use of its resources. If these efforts are successful, local communities will be more supportive of the Reserve and their role in its management. Second, it is concerned about keeping its land and resources management responsibilities in line with current budgetary and staff resources. Finally, whereas inclusion of agricultural kolkhozes and villages within the reserve fits better the mandate of a biosphere reserve, the local communities elected to take a 'wait and see' approach to membership.

24. **Public awareness and education.** Under this component, the Reserve implemented activities to raise awareness in local communities on why the delta is important to them, and worked with various actors in the international community on activities supporting protection of the Danube Delta and the Black Sea. The DPA organized a number of public education activities for different target audiences. The general public was targeted through regular contributions to local and regional newspapers, dissemination of brochures and calendars, televised news reports of Reserve activities and educational videos prepared under the project, and by an annual "March of Parks" event where the Reserve hosted the local community to a festival of environmental activities. Kiosks were established at locations frequented by fishermen and posted with information on the biosphere reserve and updated fishing regulations. An ecological education program for school children and teachers was delivered for three years at the Reserve's visitors' information center, for which the project provided equipment (video, furniture, displays) and educational materials. The design of the education program was informed by the results of a survey of public attitudes on the importance of environmental issues, in particular about nature conservation and their views on the reserve.

25. **NGO training and small grants program.** A partnership was formed with WWF International, Green Danube Program, to provide assistance for strengthening the participation and effectiveness of Ukrainian NGOs in protecting and restoring Danube Delta ecosystems (see Box 2). The first phase was held in WWF's Environmental Education Centre, Neusiedler See National Park in Austria, and focused on building business and technical skills through lectures and exercises on: (i) organization and management of NGOs; (ii) project management, and (iii) environmental education and monitoring. The participants included representatives of NGOs from the project region, including Romania, and from Kyiv.

26. Based on an assessment of the needs and capacities of 10 NGOs active in wetland conservation activities, WWF-International implemented a second phase program in the project region. In this phase, action plans were developed for regional NGO network building, project identification, and project implementation. The plans focused on involving local communities, strategic environmental education activities, targeted media work, and project communication plans, and the organisational and equipment needs to support these.

27. The participants rated the training program as highly satisfactory, and felt that it could be improved by designing it with a better understanding of Ukrainian conditions. For example, fundraising and campaigning techniques successful in western Europe are generally not relevant to the

socioeconomic circumstances of Ukraine. Nonetheless, the participants indicated that the program provided a good foundation for the NGOs to adapt international practices to local conditions.

28. A small grants program (SGP) was initiated in 1998 to better engage local communities in the project, to strengthen the education and awareness component, and to provide practical opportunities to strengthen NGOs (see Box 2). The SGP was well designed and implemented. Several consultants worked under the direction of a steering committee to design and implement the program. Four reports were prepared and disseminated: (i) a description of the program and 15 thematic areas eligible for funding, invitation for proposals, proposal requirements, and criteria for selection (1997); (ii) abstracts of the 86 proposals received and contact information for their authors/organisations (1998); (iii) a summary of the selection results and comments by the committee; and (iv) a summary of results for the 22 projects implemented (1999).

Box 2. Danube Delta NGO training and small grants program.

During the project's mid-term review, it was agreed that a small grants program (SGP) should be developed to expand local involvement in wetlands conservation, and to improve understanding of the project objectives and activities in the project region. As a prelude to the small grants program, WWF-International carried out a two-phase training program for representatives of Ukrainian nature conservation NGOs in Austria and in the project region.

The training program was financed through the Austrian Global Environment Trust Fund (managed by the Bank) and the Green Danube Program. It emphasized practical skills in NGO development and management, and had three important impacts. It improved: (i) business skills and skills in project conceptualisation, planning, and fundraising; (ii) knowledge of approaches to wetland conservation and the role of environmental education in these; and (iii) the basis for cooperation and networking among the NGOs.

The SGP was initiated in 1998 to better engage local communities in the project, to strengthen the education and awareness component, and as a practical way to put the skills developed in the NGO training program to practical use. Several consultants active in the conservation sector of Ukrainian civil society designed the small grants program, starting with dissemination of brochures calling for proposals and describing the criteria for how proposals would be selected. The progress of the program was communicated in four brochures, and the program financed 22 projects that emphasized conservation initiatives by local community members. Approximately 500 children and adults were engaged in implementing the 22 projects. The small grant program was effective at raising understanding of the project and of awareness and understanding of environment issues generally in the project region.

The project financed a range of activities, including a conference on the ecology and cultural history of the project area, streamside afforestations and restoration, an environmental film festival, brochures and posters on Danube conservation, and an environmental summer camp for children. At the end of the program, a two-day festival (Ecoforum Danube Delta '98) was held in Vilkovo (village headquarters of the Danube Delta Biosphere Reserve). The festival featured public reports on the results of each of the 22 grants, a concert by volunteer musicians, and awards program. At the festival, local villagers were impressed that the projects were implemented mainly by 'everyday people like themselves', rather than 'state-sponsored organisations', setting an example that they would be more likely to follow in the future.

D. Major Factors Affecting the Project

29. Two positive factors that affected the project were the Recipient's experience working with the Bank and the strong interest of several international organizations in the project:

- i) Experience with implementation of Bank projects. When the project became effective in 1994, the Recipient had gained experience with Bank/GEF projects through implementation of the Transcarpathian Biodiversity Protection Project, an SDR400,000 grant project that had been under implementation for one year when the Danube Delta project was launched. The ICR for the Transcarpathian project noted that the PIU had spent considerable time learning Bank procedures and in finding innovative solutions to the in-country conditions that hindered project implementation. The same PIU was responsible for both projects, and the experience learned under the Transcarpathian project was applied by the PIU to the Danube Delta project, with good results.
- ii) International interest in the project. From the outset of implementation, there was strong interest on the part of international organizations in forming partnerships with the Ukraine MEPNS and Danube Plavny Authority on implementation of the project. One of these partners was the Dutch RIZA, the General Directorate of Public Works and Water Management, which provides technical assistance in water resources management and wetlands conservation worldwide, with special emphasis on improving the management of delta ecosystems. The project's cooperation with RIZA spanned the project implementation period, and is planned to continue in the operational phase.

30. Two factors that slowed project implementation were difficulties with building construction and government licensing requirements of the Special Account:

- i) *Headquarters construction.* The project financed the construction of headquarters building for the Danube Plavny Authority, a contract for which was originally awarded to a private sector construction firm. The lack of experience of private sector involvement, by both the construction contractor and the government institutes traditionally responsible for design and construction, contributed to delays in construction. Owing to the rise in construction costs and difficulty in completing the headquarters building within the project timetable, the project's legal agreement (between the Bank and Ukraine) was amended to allow the use of project funds to purchase a newly constructed building for the headquarters. The headquarters building activity was completed two years later than planned. The delay slowed the completion of certain components, and diverted attention that should have been devoted to wetlands management activities late in the project.
- ii) *Licensing of the Special Account.* In the final year of the project, the Government of Ukraine required licensing and on-going involvement of the National Bank for the use of foreign bank accounts by private and public sector organizations. As a result of substantial delays in obtaining the National Bank's license for the operation of the Special Account, disbursement was interrupted and the completion of project activities was slowed.

31. Finally, the project was influenced by the fact it was implemented during a difficult financial period for the country, with cuts in budgetary support for most state institutions, including the National Academy of Sciences. The reserve staff usually received their salaries from one to four months late, which reduced staff morale. As a result of the uncertain financial conditions, the reserve director adopted a conservative, risk averse approach to taking on management responsibilities which took into consideration his ability to obtain financing for the recurrent costs. The difficult financial conditions also promoted a more proactive approach to developing income generating activities such as tourism.

D. Project Sustainability

32. Government budgetary support for the Danube Biosphere Reserve was leveraged by the GEF project. This budgetary support, along with the strong ownership and commitment of the main stakeholders, means that key benefits of the project will continue to be achieved in the operational phase. However, parts of the operational plan which are central to the project's sustainability will depend on the reserve's success in obtaining additional financing. While there are indications that grant support will be made available by other donors, this is not certain. Therefore, while key aspects of the project are sustainable, there remains some uncertainty over whether the project as a whole is sustainable.

33. With respect to the project's improvements in reserve management and biodiversity conservation that resulted from its human resources development activities, the project is likely to be sustainable through the medium term (e.g., 5-10 years). The staff is relatively young and highly committed to continuing with project activities. The project's emphasis on 'learning by doing' activities, supported by focused international technical assistance, resulted in a strengthened Reserve staff capable of handling the core activities of the operational plan without substantial external assistance/investments in human resources. For the most part, the Academy of Sciences or the Ministry of Environmental Protection and Nuclear Safety do not have the budgetary resources to continue with the various international training programs which were initiated under the project. However, since project completion, Ukraine has maintained its participation in Europe-wide conservation and sustainable development discussions, in part through its partnerships with international organisations such as Wetlands International and World Wildlife Fund.

34. With respect to expensive activities such as wetlands restoration and applied research, the sustainability is uncertain. The reserve will continue with some wetlands restoration and applied research activities, but the state is unlikely to substantially increase the reserve's budget under current economic conditions. Implementation of the full operational plan will therefore depend on external financing and on the reserve's success in generating revenue.

35. Regarding external financing, a US\$2M project in wetlands conservation and public education financed by the Dutch government and implemented through the WWF-Greene Danube Program is proposed to continue with several activities initiated under the project. Regarding income generation, the by-laws for the biosphere reserve include the right for the reserve authority to operate a revenue account, fed by revenues from fines, resource use fees, fee-paying visitors, and donations. This revenue account was created to supplement the modest budget from the Academy of Sciences for the biosphere reserve's operational expenses. The Reserve is also marketing its modest ecotourism opportunities to bird watching groups and tourists, emphasizing its rich bird life, scenic qualities, and

location (the “0 km location of the Danube River”). Finally, the conservation efforts of the Reserve remain of considerable interest to donors and other partners. The Reserve staff has started applying for small grants and has met with some success. Each of these activities has been designed to generate a modest supplement to the budget that will contribute to the sustainability of project benefits.

E. Bank Performance

36. The Bank’s performance was satisfactory throughout preparation and implementation. The project was well prepared: the project design was fully appropriate to the project objectives, and the Recipient was comfortable with the level of detail on project activities, budget, and implementation arrangements found in the project document. Starting early in implementation, the Bank provided assistance with procurement, focused on human resources development activities that were useful in implementing the project and preparing the Recipient for the operational phase, and assisted with facilitating partnerships with international organizations interested in the project. The Bank was responsive to the additional supervision needs not foreseen during preparation, by accessing trust funds for technical issues and training. The project was continuously supervised from project launch through completion by a technical specialist, by a highly qualified resident mission staff member and other resident mission staff experienced with the needs of the project and with Ukraine.

F. Recipient Performance

37. The Recipient’s performance was satisfactory. The project was disbursed over a five year period and its completion required one six-month extension. The legal covenants were continuously enforced. The project was implemented largely as planned, with small adaptive changes made in consultation with the Bank. The principal beneficiary of the project was the Danube Plavny Authority (re-named the Danube Biosphere Reserve Authority at the end of the project), which consisted of a relatively small staff with nearly no experience with bilateral or multilateral financed projects or organizations. The reserve staff performed well in adapting its previous mandate of monitoring and protection functions typical of a strictly protected area to include wetland management and public education and involvement. The DPA was assisted by the MEPNS, the CBNNPRA, Academy of Sciences, and the PIU. The Academy of Sciences contributed modest budgetary resources, substantial technical support for the scientific program, and oversight with regard to the Man and the Biosphere Program. The performance of the MEPNS, the authorized representative for the Recipient, was satisfactory in facilitating all aspects of the project. The PIU’s efforts and results in procurement and as facilitators of project implementation were excellent, particularly in the face of the country’s extensive regulations and procedures.

H. Assessment of Outcome

38. The project had positive and satisfactory outcomes with respect to human resources development, expanded vision for protected area management in Ukraine, and improved biodiversity protection and use within the Danube Biosphere Reserve¹:

- i) Establishment of new approaches to the management of protected areas in Ukraine.
The preparation of a management plan for the Danube Biosphere Reserve and the early

¹ The Recipient's comment letter (Appendix B) recommended that the project's outcome be rated as highly satisfactory.

stages of its implementation represents an important step in Ukrainian protected areas management. Prior to the project, the typical model for protected area management in Ukraine was that of a strict nature reserve or national nature park for which a 'territorial organization plan' was prepared. The territorial organization plan has basic elements of a management plan, but its focus on boundaries and restrictions on land and resource use is a static approach to protected areas management. The management plan prepared under the project emphasizes a participatory process for defining objectives and the technical habitat management measures that are needed to achieve these objectives. This is the first protected area management plan adopted in Ukraine that prescribes proactive habitat management measures, in this case for reedbeds and based on water management, controlled burning, and establishment of regimes for the use of its resources.

The approaches to wetlands management and the plan itself were developed in collaboration with international partners such as Wetlands International, the Dutch RIZA, and AIDEnvironment (a Dutch-based NGO) over a period of four years, and in this sense are the tangible outcome of the international cooperation activities financed by the project and cofinanciers such as RIZA.

- ii) Development of human resources and integration of the reserve into European conservation initiatives. The project helped to build the staff skills that were needed to achieve the project objectives, and which will be needed to implement the operational phase of the project. The project also led to collaboration and partnerships on delta conservation/natural resource management issues with colleagues and organizations elsewhere in central and western Europe. The current activities with the Dutch RIZA and Austrian WWF-International that were catalyzed by the project are planned to continue in the operational phase.
- iii) Improved protection and management of the biodiversity of the Danube Biosphere Reserve. The Ukrainian Danube Biosphere Reserve was established in 1998 through the addition of key wetland and upland sites, a plan for its management was prepared and is being implemented, and reserve staff are better trained and equipped to fulfill the reserve's mandate of improved management and protection of the biosphere reserve's biodiversity. The Danube Delta Biosphere Reserve (Romania/Ukraine) was also established in 1999, shortly before the Completion Mission, and its function has not yet been evaluated.

I. Future Operations

39. The Recipient has identified activities in the following six areas that are the priorities for the operational period from 1999 to 2002: Reserve infrastructure and resource management, wetlands restoration, research and monitoring, public education and awareness, regional and international cooperation, and tourism development. Table 2 summarizes the activities and their estimated costs. . An estimated US\$150,000 will be required annually to finance the plan over the next 3.5 years. Excluding salaries, the reserve can expect to cover approximately one-third of the investments needed from the Academy of Sciences. The reserve will attempt to finance the remaining two-thirds from income generating activities, user fees collected for the use of resources (e.g., fish, reedbeds) in

selected parts of the reserve, and from additional international financing. The Recipient is working with WWF-International on a proposal to finance some of the expensive wetlands restoration (i.e., sluice gate restoration) and public education activities identified in Table 2.

J. Key Lessons Learned

40. The key lessons learned from the Recipient's and Bank's perspectives are:
- a. Well-planned public education and awareness activities are needed early in the project to get the public involved in a meaningful way. One way to catalyse the education and awareness activities would have been to initiate the project with an awareness and education activities through the NGO development and small grants program.
 - b. The creation of a biosphere reserve should be undertaken in phases to allow the administration and local communities opportunity to understand and adequately plan for its added financial and managerial responsibilities.
 - c. Future projects should seek ways to simplify Ukrainian requirements and procedures early in project implementation, in order to avoid delays in its progress.
 - d. If the protected areas administration is to work effectively with local communities, technical studies to guide sustainable use of reserve resources (e.g., hunting and fishing) should be undertaken early in project implementation, in collaboration with local users and linked to public education activities.
 - e. Continuity in supervision responsibility contributes greatly the relationship between the Bank and its client.

Table 1. Danube Delta Biodiversity Project Summary of Project Activities, Results, and Impact*	
Component 1. DPA Strengthening	
Activity/result	Impact
<p>Procured:</p> <ul style="list-style-type: none"> ▪ HQ building constructed with garage, maintenance area, dock & mooring facilities operational (including utilities) and equipped (office furniture & equipment), supported by 3 vehicles, computers, communications, & other equipment; purchase of 2 apartments to be held in perpetuity by Reserve Authority for use by employees <p>Staffing:</p> <ul style="list-style-type: none"> ▪ Total staff increased from 14 to 35 <p>Training:</p> <ul style="list-style-type: none"> ▪ Training and workshops in wetland management with substantial project financing: Odessa (1995), 250 p/d; Lelystad (1995), 80 p/d; U.K.-Denmark-Sweden Study Tour (1995), 24 p/d; Lelystad, 2 workshops (1998), 48 p/d; Vienna 'Partners for Wetlands workshop (1998), 16 p/d; Svialava 'biobusiness' workshop (1996), 42 p/d; ▪ Training and workshops with Reserve staff participation, with substantial co-financing: 6 technical assistance missions to Reserve by Dutch RIZA (1995-1999), 60 p/d; Odessa wetland inventory workshop (1995), 210 p/d; US-AID study tour of US protected areas (1995), 30 p/d; Italy, delta management workshop (1998), 24 p/d; Finland, EuroMab conference (1998), 19 p/d; WWF mission on wetlands restoration (1998), 16 p/d; ▪ English language training (2 years) 	<ul style="list-style-type: none"> ▪ Mandate of the Reserve transformed from conservation through prohibition of resource use to more proactive participatory approaches ▪ Adoption of management plans as a tool in Reserve management ▪ High quality staff recruited/retained ▪ Better understanding of international practices of wetland management ▪ Experience with international nature conservation community ▪ Reserve gained a voice in decision-making in the region ▪ Reserve more capable of attracting donor funding
Component 2. Warden Strengthening	
<p>Training:</p> <ul style="list-style-type: none"> ▪ warden training course in Netherlands, France, Romania completed (400 p/d) ▪ on-going training in Vilkovo ▪ MEPNS-organized training (8 p/d), w/ training manuals 	<ul style="list-style-type: none"> ▪ Job satisfaction and prestige of wardens increased ▪ Capability to perform monitoring ▪ Capacity and efficiency of warden service improved through technical improvements and training ▪ Improved ability of wardens to communicate with public about the DBR

Component 3. Monitoring/Database Management	
<p>Procured:</p> <ul style="list-style-type: none"> ▪ Office and monitoring equipment purchased (computers, telescopes, binoculars, night-vision, oxymeters, pH-meters, etc.) ▪ PC-GIS (provided by RIZA) ▪ Aerial photographs obtained, reserve maps created 	<ul style="list-style-type: none"> ▪ Scientific justification provided for resource management and protection ▪ Improved knowledge of biodiversity and input to management plan and public awareness program
<p>Studies and results:</p> <ul style="list-style-type: none"> ▪ Inventory of flora and fauna, vegetation map ▪ Scientific basis for management actions developed ▪ key resources studied, recommendations for their sustainable use developed ▪ research base for wetland restoration established ▪ monitoring system established ▪ hydrology model for SZP developed ▪ scientific justification for DBR zoning prepared ▪ digital map of DBR prepared ▪ monograph of project results prepared ("Conservation and Management of Biodiversity of the Danube Biosphere Reserve") ▪ Research for 5 PhD dissertations conducted at Reserve <p>Training and conferences:</p> <ul style="list-style-type: none"> ▪ GIS and conservation biology training, 238 p/d total: US (1994, 180 p/d); Belarus (1994, 28 p/d) and GIS training in Lelystad (1997, 30 p/d) ▪ International bird research meeting (1997, 8 p/d) ▪ Participation in 6 international congresses/conferences: 3 financed by the project, 3 by international donors ▪ Scientific Advisory Committee meetings (Kyiv, '96, '97, '98) 	<ul style="list-style-type: none"> ▪ Broader acceptance and approval for proactive management ▪ DBR staff with higher capacity to implement the management plans and other reserve programs
Component 4. Wetlands Restoration	
<p>Procured:</p> <ul style="list-style-type: none"> ▪ Vilkovovo canals dredged and banks restored (350m), public loading dock constructed <p>Studies and results:</p> <ul style="list-style-type: none"> ▪ First phase of SZP restoration: first phase change in water management (for drying ZP); canal dredged in ZP for improved water flows (385m); pilot reed harvesting and testing for commercial market in Holland (40ha); specifications for sluice repair ▪ reduced grazing pressure on Ostrov-Yermakov ▪ reports on SZP; Yermakov, and Larzarkin kut 	<ul style="list-style-type: none"> ▪ Local population more supportive of Reserve mission ▪ Partial improvement in ecological conditions of SZP ▪ Improved practical skills in reedbed (plavny) management

Component 5. Public Awareness	
<p>Procured:</p> <ul style="list-style-type: none"> ▪ Environmental education center equipped and operational ▪ Ecological trail and bird watching house constructed and operational ▪ Information stands at fish stations established and regularly updated (DBR information, updated rules and regulations on fishing in and around DBR) 	<ul style="list-style-type: none"> ▪ Improved understanding of DBR functions/objectives by local community ▪ Needed support among adult population for creation of DBR generated
<p>Training:</p> <ul style="list-style-type: none"> ▪ NGO training completed (150 p/d in Austria; 50 p/d in Odessa and locally) <p>Activities:</p> <ul style="list-style-type: none"> ▪ Reserve hosted periodic events -e.g., March of Parks (5 years), published ~ 100 articles in local newspaper ▪ Environmental column in local paper "Page for Children" published regularly ▪ 8 videos on nature conservation/DBR, broadcast on regional TV and distributed to local schools and organizations ▪ Small grants program (22 projects) designed and implemented, some with small scale restoration activities, tree plantings, etc ▪ 4 Reserve staff represent DBR in local government (e.g., Vilkoovo Council) and resource user/stakeholder groups (e.g. hunting & fishing association) ▪ Ecoforum Danube Delta '98: 2-day conference/festival on results of the small grants program 	<p>Small grants program:</p> <ul style="list-style-type: none"> ▪ Environmental support groups better-networked in the region ▪ Capacity of support groups and individuals increased ▪ Several local environmental improvement activities realized ▪ local community acknowledge the importance of 'individual' environmental initiatives
Component 6. Biosphere Reserve Establishment	
<p>Activities:</p> <ul style="list-style-type: none"> ▪ First phase of establishment of DBR completed in 1998 with Presidential Decree (46 403 ha) ▪ Temporary zoning adopted (BR is divided into core, regulated economic activity, buffer and anthropogenic zones) and land-use arrangements completed ▪ Establishment of legal framework for biodiversity conservation and resource management ▪ Management plans prepared for Stentsovsko-Zhebriansky Plavny (SZP), Yermakov island, Kiliya delta and Zhebrianska ridge ▪ 25 000 ha reserved for inclusion in DBR in the future by Presidential Decree (2nd phase) 	<ul style="list-style-type: none"> ▪ Danube Biosphere Reserve established (first phase) ▪ Improved potential for management, protection and diminishing socio-economic conflict over resource use

Component 6. Biosphere Reserve Establishment (continued)	
<ul style="list-style-type: none"> ▪ Environmental Fund at DBR established as an instrument to ensure additional funding for DBR (governance: Council, consisting of 4 representatives of DBR, Deputy Mayor, local environmental inspector and Director of the institute of Biology of Southern Seas); ▪ Wetlands of Kiliya delta certified as Ramsar site ▪ DBR certified by UNESCO ▪ Bilateral Romanian-Ukrainian DBR certified by UNESCO. 	
Component 7. Regional Initiatives and Coordination	
<p>Cooperation with Romania Danube Delta Biosphere Reserve:</p> <ul style="list-style-type: none"> ▪ Bilateral Romanian-Ukrainian DBR established as a result of joint efforts of Romania's and Ukraine's MAB Committees ▪ 2-day field visit by Romanian representatives with agreement to form working group for development of bilateral reserve by-laws and program of cooperation for the transboundary Danube Delta Biosphere Reserve (April 1999) ▪ Ukrainian participation in annual technical meetings held by Romanian authorities ('94-'98) ▪ Regular exchange of scientific and other information between Romania and Ukraine established since 1994 <p>Cooperation with NGOs and other organizations on other initiatives:</p> <ul style="list-style-type: none"> ▪ WWF Germany: Technical assistance in wetland restoration, booklet on future DBR published ▪ WWF-International: potential cooperation within the "Partners for Wetlands" program ▪ RIZA (Netherlands): various assistance ▪ Wetlands International (WI): collaboration on Black Sea wetlands conservation efforts, (wetlands inventory); technical assistance on identification of Ramsar sites ▪ Participation of Romanian representatives in several project activities (Odessa Wetlands Management Course, NGO training, SZP management workshop, research meetings ▪ skill-sharing activities in natural resource, wetland restoration and protected area management organized in Romania 	<ul style="list-style-type: none"> ▪ BR benefited from and contributes to international/regional nature conservation programs

Component 7. Regional Initiatives and Coordination (continued)	
<ul style="list-style-type: none"> ▪ joint research on sturgeon conservation undertaken ▪ warden training in Romania (see Component 1) technical cooperation in bird monitoring and vegetation mapping	
Component 8. Endowment Fund Establishment	
<ul style="list-style-type: none"> ▪ initial marketing activities underway with school groups and some tourists already accommodated ▪ For fee facilities in place (limited rooms at HQ, warden stations), additional income generation potential being explored (reed harvesting) ▪ Management plan envisages activities on income generation by DBR 	<ul style="list-style-type: none"> ▪ Initial income from various activities generated
* p/d, person days	

Table 2. Danube Delta Biodiversity Project Operational Plan				
Planned Activity	Responsibility (Primary & Secondary)	Year	Funding From Ukraine Academy of Sciences (\$US)	Funding from Other Sources (\$US)
Reserve infrastructure and resource management				
Finalisation of zoning	DBR, MEPNS, NAS	2000	3,000	
Creation of infrastructure in new areas of the DBR	“	2000-2002		
▪ 3 warden stations in SZP, 1 on Yermakov with watchtowers & equipment	DBR, MEPNS, NAS	“	20,000	100,000
▪ 7 motor boats & engines	DBR	2000	5,000	5,000
Expansion of reserve staff (to cover new areas; 5 scientists, 10 wardens/admin./technician staff)	NAS	1999-2000	3,000	15,000
Reorganisation of fishing and hunting practices – licensing of fisheries etc.	DBR, MEPNS	2000-2001		
▪ Introduction of new terms and regulations	DBR, MEPNS	“	2,000	1,000
▪ Use of grazing as a tool in vegetation management and income generation for local population	DBR	1999-2001	500	
subtotal			33,500	121,000
SZP Restoration				
50% of restoration management plan	DBR, MEPNS, donors	1999-2002		
▪ Sluice repair	DBR, MEPNS, donors	2000		45,000
▪ Reedbed burning and recultivation (800 ha)	“	1999-2000	12,000	
▪ Continuation of reed harvesting (pending results of pilot activity)	DBR	1999-2001	3,000	
▪ Channel restorations	DBR, MEPNS	2000-2002		40,000
subtotal			15,000	85,000
Research and Monitoring				
Continuation of core monitoring program established under the project	DBR, IBSS, donors	1999-2002	6,000	
Restoration-oriented research				
▪ Ostrov-Yermakov	DBR, Institute of Botany	2000-2001	6,000	

▪ "Lenin" fish ponds	DBR, IBSS, Institute of Botany	"	3,000	
▪ Rare and extirpated species	DBR, MEPNS	1999-2002	7,000	
▪ SZP 'root felt depth' study	DBR, IBSS	1999-2000	3,000	
Zhebrianski Ridge	"	2001-2002	4,000	
Office and field equipment	DBR, NAS, donors	1999-2002	-	20,000
Chronicle of Nature	DBR, NAS	1999-2002	13,000	
subtotal			42,000	20,000
Public Education and Awareness				
Ongoing public awareness activities				
▪ Small grants program	DBR, donors	2000-2002		30,000
▪ March of Parks	DBR	1999-2002	6,000	
▪ Publications	DBR	1999-2001	3,000	
▪ Establishment of permanent visitor center (moved from current temporary quarters and improvements to old headquarters building)	DBR	1999-2001		9,000
subtotal			9,000	39,000
Regional and International Initiatives				
Working group for establishment of bylaws/regulations for bilateral Biosphere Reserve	DBR	1999-2000	4,000	
Participation of DBR staff in new corridor project (especially monitoring activities)	DBR	2000-2002	-	15,000
Continue technical and research cooperation				
▪ Sturgeon conservation study	DBR	1999-2002	-	7,000
▪ Vegetation mapping of delta	DBR	1999-2000	0,500	1,500
▪ Others (bird monitoring, etc.)	DBR	1999-2002	1,500	5,000
Participation of DBR in international convention activities (Ramsar, Bonn, Berne)	DBR	1999-2002		5,000
subtotal			6,000	33,500

Tourism Development				
Development of tourism infrastructure (ethnographic museum,	DBR	2000-2002		21,000
Purchase/contracting of bus for transportation of tourism groups from Odessa	DBR	2000		30,000
subtotal				51,000
Total			105,500	349,500

Part II. Statistical Tables

Tables

- 1: Summary of Assessment
- 2: Related Bank Loans/Credits
- 3: Project Timetable
- 4: Loan/Credit Disbursements: Cumulative Estimated and Actual
- 5: Key Indicators for Project Implementation
- 6: Key Indicators for Project Operation
- 7: Studies Included in Project
- 8A: Project Costs
- 8B: Project Financing
- 9: Economic Costs and Benefits
- 10: Status of Legal Covenants
- 11: Compliance with Operational Manual Statements
- 12: Bank Resources: Staff Inputs
- 13: Bank Resources: Missions

Table 1: Summary of Assessments

A. <u>Achievement of Objectives</u>	<u>Substantial</u> (✓)	<u>Partial</u> (✓)	<u>Negligible</u> (✓)	<u>Not applicable</u> (✓)
Macro Policies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sector Policies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial Objectives	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institutional Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Objectives	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poverty Reduction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Gender Issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other Social Objectives	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental Objectives	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Sector Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Private Sector Development	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. <u>Project Sustainability</u>	<u>Likely</u> (✓)		<u>Unlikely</u> (✓)	<u>Uncertain</u> (✓)
	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
C. <u>Bank Performance</u>	<u>Highly Satisfactory</u> (✓)		<u>Satisfactory</u> (✓)	<u>Deficient</u> (✓)
Identification	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Preparation Assistance	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Appraisal	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Supervision	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. <u>Recipient Performance</u>	<u>Highly satisfactory</u> (✓)		<u>Satisfactory</u> (✓)	<u>Deficient</u> (✓)
Preparation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Implementation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Covenant Compliance	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Operation (if applicable)	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
E. <u>Assessment of Outcome</u>	<u>Highly satisfactory</u> (✓)	<u>Satisfactory</u> (✓)	<u>Unsatisfactory</u> (✓)	<u>Highly unsatisfactory</u> (✓)
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 2: Related Bank Loans/Credits

Loan/credit title	Purpose	Year of approval	Status
<i>Preceding operations</i>			
Transcarpathian Biodiversity Protection Project.	Protection of mountain forest ecosystems	1993	Satisfactory (completed)
Black Sea Environment Program	Regional cooperation on restoration of Black Sea ecosystems	1992	N/A
Romania Danube Delta Biodiversity Project	Protection of Romanian Danube ecosystem	1993	Satisfactory
<i>Following operations</i>			
Donetsk Environment Project	Pollution control	Under preparation	N/A
Biodiversity Conservation in the Azov-Black Sea Corridor	Biodiversity conservation and sustainable agriculture	Under preparation	N/A

Table 3: Project Timetable

Steps in Project Cycle	Date Planned	Date Actual/ Latest Estimate
Identification (Executive Project Summary)	11/91	11/91
Preparation	11/91-9/93	11/91-9/93
Appraisal	9/93	9/93
Negotiations	4/94	5/94
Board Presentation	4/94	7/94
Signing	4/94	7/94
Effectiveness	5/94	8/94
Grant Closing	12/98	6/99

Table 4: Grant Disbursements: Cumulative Estimated and Actual (US\$ million)

	FY94	FY95	FY96	FY97	FY98	FY99
Appraisal estimate	0.20	0.65	1.10	1.45	1.61	-
Actual	0	0.27	0.51	0.77	1.28	1.54
Actual as % of estimate	0	41%	46%	53%	80%	100%
Date of final disbursement: June 4, 1999						

Table 5: Key Indicators for Project Implementation

[not applicable for GEF project]s

Table 6: Key Indicators for Project Operation

[not applicable for GEF projects]

Table 7: Studies Included in Project

Study	Purpose as defined at appraisal/redefined	Status *	Impact of study
1. A water balance model for Stentsovsko-Zebrijanske plavny.	Technical study to guide management actions	C	Technical justification for management actions
2. Management plans for three areas of the biosphere reserve.	Participatory and technical plan for protected area/wetland management and resource use	C	Technical and social justification for management actions
3. Conservation and management of the biodiversity of the Danube Biosphere Reserve.	Monograph summary of project-funded applied research and protected areas planning.	C	Summary of project results
4. Eight videos on biodiversity and sustainable use of resources of the Danube Delta region	Public education and awareness	C	Videos shown on regional television and distributed to local schools, but magnitude of impact not studied.

* C, completed

Table 8A: Project Costs

Item	Appraisal estimate (US\$ Thousands)			Actual/latest estimates (US\$ Thousands)		
	Local costs	Foreign costs	Total	Local costs	Foreign costs	Total
A. DP Authority Strengthening	561.0	189.8	750.8	680.6	310.2	990.8
B. Warden Strengthening	157.8	8.9	166.8	189.3	85.5	274.8
C. Monitoring, Database Management	77.7	32.7	110.4	154.7	38.3	193.0
D. Wetland Restoration*	218.1	82.7	300.8	40.9	3.2	44.1
E. Public Awareness	2.0	129.4	131.4	89.4	2.0	91.4
F. Biosphere Reserve Establishment	27.2	32.3	59.5	117.4	15.6	133.0
G. Regional Initiatives & Coordination	-	10.7	10.7	0	5.2	5.2
H. Endowment Fund Establishment	2.6	9.6	12.2	0	0	0
Special Account charges				5.8	1.0	6.8
Total Baseline Costs.	1,046.3	496.2	1,542.6	1278.1	461.0	1739.1
Physical Contingencies	104.6	49.6	154.3			
Price Contingencies	27.2	13.3	40.5			
Total	1,178.1	559.2	1,737.3			

* See paragr. 14 (Part I) for explanation of change in appraisal and actual budgets

Table 8B: Project Financing

Item	Appraisal estimate (US\$ Millions)			Actual/latest estimates (US\$ Millions)		
	Local costs	Foreign costs	Total	Local costs	Foreign costs	Total
GEF Grant	0.94	0.56	1.5	1.09	0.46	1.54
Government	0.24	0.0	0.24	0.19	0	0.19
Total	1.18	0.56	1.74	1.28	0.46	1.74

Table 9: Economic Costs and Benefits

not applicable for GEF projects

Table 10: Status of Legal Covenants

Agreement	Section	Covenant Class	Present Status	Original Fulfillment Date	Revised Fulfillment Date	Description of Covenant	Comments
GRANT	2.02(b)	3	C	Continuous		The Recipient shall open & maintain in dollars in a special deposit account in a bank acceptable, & on terms & conditions satisfactory, to the Trustee including protection against seizure. This account shall operate according to provisions in Schedule 5.	
GRANT	3.01(a)	5	C	Continuous		The Recipient declares commitment to project objectives as set forth in Schedule 2 to this Agreement and shall carry out the project with due diligence & with appropriate administrative & financial practices & shall provide funds for the project.	
GRANT	3.01(b)	10	C	Continuous		Without limitation upon para (a) of this Section & except as the Recipient & the Trustee shall otherwise agree, the Recipient shall carry out the Project in accordance with the Implementation Program set forth in Schedule 4 of this Agreement.	
GRANT	3.02	5	CD	Continuous		Except as the Trustee shall otherwise agree, procurement of goods, works & services for the Project & to be financed out of the GET Grant shall be governed by the provisions of Schedule 3 to this Agreement.	
GRANT	4.01(a)	1	C	Continuous		The Recipient shall maintain records & accounts adequate to reflect accordance with sound accounting practices the operations, resources & expenditures of the project as well as those of the agency responsible for carrying out the project.	

GRANT	4.01(b)(i)	1	C	Continuous	The recipient shall have the records & accounts referred to in para (a) of this Section incl those for the Special Account for each FY audited, using appropriate auditing principals, by independent auditors acceptable to the Trustee.
GRANT	4.01(b)(ii)	1	CD	Continuous	The recipient shall furnish to the Trustee not later than six months after the end of each year, the audit report, of such scope and in such detail as the Trustee shall have reasonably requested.
GRANT	4.01(b)(iii)	1	C	Continuous	The recipient shall furnish to the Trustee such other information concerning said records & accts & audit thereof as the Trustee shall from time to time reasonably request.
GRANT	4.01(c)(i)	1	C	Continuous	For all expenditures where withdrawals from the GET Grant Account were made on the basis of statements of expenditure, the Recipient shall maintain in accordance with para (a) of this Section, records & accounts reflecting such expenditures.
GRANT	4.01(c)(ii)	1	C	Continuous	The Recipient shall retain, until at least 1 year after the Trustee has received the audit report for the fiscal year in which the last withdrawal the Grant Account was made, all records (contracts, orders, bills, etc) evidencing such expenditures.
GRANT	4.01(c)(iii)	1	C	Continuous	The recipient shall enable the Trustee's representatives to examine such records.
GRANT	4.01(c)(iv)	1	C	Continuous	The recipient shall ensure that such records and accounts are included in the annual audit & that the audit report contains a separate auditors' opinion on the FY's statements of expenditure together with their preparation procedures.

Covenant types:

1. = Accounts/audits
2. = Financial performance/revenue generation from beneficiaries
3. = Flow and utilization of project funds
4. = Counterpart funding
5. = Management aspects of the project or executing agency
6. = Environmental covenants
7. = Involuntary resettlement

8. = Indigenous people
9. = Monitoring, review, and reporting
10. = Project implementation not covered by categories 1-9
11. = Sectoral or cross-sectoral budgetary or other resource allocation
12. = Sectoral or cross-sectoral policy/regulatory/institutional action
13. = Other

Present Status:

- C = covenant complied with
 CD = complied with after delay
 CP = complied with partially
 NC = not complied with

Table 11: Compliance with Operational Manual Statements

Statement number and title	Describe and comment on lack of compliance
<i>no lack of compliance was observed</i>	

Table 12: Bank Resources: Staff Inputs

Stage of project cycle	Planned ¹		Actual	
	Weeks	US\$	Weeks	US\$
Preparation to appraisal	na--	na--	12.5	37,100
Appraisal	na--	na--	.3	6,000
Negotiations through Board approval	na--	na--	.6	2,000
Supervision	na--	na--	61.7	209,800
Completion	8.7--	28,100--	9	29,800
Total	--	--		284,700

¹ Data on planned weeks not available.

Table 13: Bank Resources: Missions

Stage of project cycle	Month/ Year	No. of Persons	Days in Field	Specialization ¹	Performance Rating ²		Types of Problems ³
					Implem. Status	Develop. objectives	
Through appraisal	Not available	Not available	Not available	E, B			
Appraisal through signing	Not available	Not available	Not available	E, B			
Supervision I	9/94	6	8	E,B,P	S	S	P
Supervision II	12/94	1	6	B	S	S	P
Supervision III	6/95	2	3	B, E	S	S	P
Supervision IV	6/96	1	7	B	S	S	
Supervision V	2/97	2	8	B	S	S	P
Supervision VI	5/97	2	8	B	n/a *	n/a *	
Supervision VII	6/97	4	11	B, C	S	S	
Supervision VIII	2/98	3	12	B	S	S	
Supervision IX	7/98	2	7	B	S	S	
Supervision X	9/98	1	1	B	S	S	
Completion	4/99	2	7	B	S	S	
Total							

1 - Key to Specialized staff skills:

E = Economist

B = Biodiversity/Wetlands Specialist

P = Procurement Specialist

C = Construction Specialist

2 - Key to Performance Ratings:

1 = Satisfactory

S = Satisfactory

HS = Highly satisfactory

3 - Key to Types of Problems:

P= Procurement

M = Managerial.

* updating of the 590/PSR was not needed for these missions

Ukraine

Danube Delta Biodiversity Project (TF 28654), Completion Mission
Biodiversity Conservation in the Azov-Black Sea Corridor (TF 28961), Pre-appraisal Mission

World Bank Mission, April 1999

Aide-Memoire

1. A World Bank mission consisting of Messrs. Brylski and Slenzak (ECSSD) and Ms. Heitman (consultant) worked in Kyiv from March 22-26 to pre-appraise the Biodiversity Conservation in the Azov-Black Corridor project. Messrs. Brylski and Slenzak carried out the Completion Mission for the Danube Delta GEF project in Vilkovo and Kyiv from April 8-22. The mission thanks the Ministry of Environmental Protection and Nuclear Safety (MEPNS), Academy of Sciences, Danube Delta Biosphere Reserve Authority, and Project Implementation Unit (PIU, InterEcocentre) for their hospitality and assistance during this and all previous missions during the implementation of the Danube Delta project. The mission was well-supported by the Bank's Resident Mission in Kyiv. This Aide Memoir is subject to confirmation by World Bank management.

Danube Delta Project Completion Mission

2. The mission worked with the Danube Delta Biosphere Reserve Authority, Academy of Sciences, MEPNS, and the PMU to discuss the project achievements and operation plan in Vilkovo (at the Danube Delta) and in Kyiv.

3. The Project will close on June 30, 1999, after one six extension. At the time of the Completion Mission, the funds were 95% disbursed. Annex 1 and its attachments contain draft sections of the ICR and the operational plan.

4. In Vilkovo, the mission participated in discussions between the DDBRA, Dr. Voloshyn, Vice-Director, Academy of Sciences; Dr. Stetsenko, Director, Central Board for Nature Conservation Reserve and representatives of the Romania Danube Delta Biosphere Reserve (Dr. Baboianu, Danube Delta Biosphere Reserve Authority, Dr. Staras, Danube Delta Institute, and Ms. Rachita, World Bank Team Leader for the Romania Danube Delta project). The discussions focused on project achievements and on the steps needed to operationalise the recently created biltateral (transboundary) Danube Delta Biosphere Reserve.

5. The Special Account for this project and other Bank projects in Ukraine have been frozen for approximately four months as a result of delays in obtaining a license to meet the National Bank's requirement for accessing foreign bank accounts. When it became evident that approval from the Central Bank to continue to use the Special Account was not likely to occur before the

closing date of the project, the MEPNS transferred the funds back to the Bank, where they are now available for use through direct payment. In order to make full use of the remaining grant funds, the MEPNS needs to contract with its PMU (InterEcocentre) to finalise procurement of the remaining goods and services.

6. Next Steps:

- *If the MEPNS is to use the remaining grant funds, it will need to authorise the PMU to proceed with preparing contracts for the remaining goods and services, so that they can be paid by direct payment.*
- *The Bank should provide a translated version of its draft ICR to the MEPNS as soon as feasible, and not later than May 7.*
- *The MEPNS should provide its comment letter on the Bank's ICR within several weeks of its receipt.*
- *The Academy of Sciences and MEPNS should inform the Bank of the next steps it will take for working with Romania on making the bilateral biosphere reserve operational, so that this can be included in the Implementation Completion Report.*

Biodiversity Conservation in the Azov-Black Sea Corridor Project

7. A three-day workshop was held at the Resident Mission to review the project design with the main stakeholders. The workshop was well-attended, with about 25 participants, including representatives of key national and local stakeholders. From the local/regional level, the following were represented: six oblast governments/MEPNS, Crimea State Environmental Protection Committee, farm collective, State Agricultural Institute, and NGOs. From the national level, the following were represented: MEPNS and Central Board for Nature Conservation, Parliamentary Committee, National Agency for Development and European Integration, and Presidential Administration office.

8. The workshop participants confirmed their strong support for the project and worked together in updating the project design, project outputs and performance indicators. A key issue discussed during the workshop was the project implementation arrangements. The Bank recommended an implementation arrangement that gives the national MEPNS responsibility for overall project implementation and local (oblast) level responsibility for key decisions on project activities and integration of activities within and between oblasts in the project region.

9. Next Steps:

- *The Bank should arrange for translation of the updated project description materials and provide these to the MEPNS and workshop participants by May 7.*

- *The MEPNS should provide written comments on the project design and implementation arrangements within two weeks of receiving the translated version.*
- *The mission requested the assistance of the Central Board for Nature Conservation in drafting/finalising the budgets for the project components*

МІНІСТЕРСТВО
ОХОРОНИ НАВКОЛИШНЬОГО
ПРИРОДНОГО СЕРЕДОВИЩА
ТА ЯДЕРНОЇ БЕЗПЕКИ УКРАЇНИ

Хрещатик, 5, 252601, Київ - 1
тел: +380 44 228 06 44/228 24 28,
факс: +380 44 229 83 83

E-mail Internet:
mep@mep.FreeNet.Kiev.UA



MINISTRY
FOR ENVIRONMENTAL
PROTECTION AND NUCLEAR
SAFETY OF UKRAINE

5 Khreshchatyk str., 252601, Kyiv-1
phone: +380 44 228 06 44/226 24 28
fax: +380 44 229 83 83

E-mail Internet:
mep@mep.FreeNet.Kiev.UA

14. 10. 99 № 05-07-768

на № _____ від _____

Ms. Lily Chu

Acting Country Director
Ukraine and Belarus
Europe and Central Asia Region
The World Bank
1818 H Street N.W.
Washington, DC 20433 USA

Re: Danube Delta Biodiversity Project, GET GRANT TF 28654

Dear Ms. Chu,

The Ministry for Environmental Protection and Nuclear Safety of Ukraine has considered the Implementation Completion Report (ICR) on the Danube Delta Biodiversity Project prepared by the World Bank and considers that it comprehensive and completely reflects the information and results of project implementation. The Ministry has no any objections to the ICR. Taking into consideration significant input of the World Bank in planning and implementation of the project and its high efficiency the Ministry deems it appropriate to change rating in the table 1: Summary of Assessment of the ICR as follows:


- the World Bank efforts on "Identification" and "Preparation Assistance" should be rated as "highly satisfactory";
- "Assessment of Outcome" can be rated as "highly satisfactory" as well.

We have a pleasure to inform you that based on the results of the GEF project it became possible to undertake new important steps in international efforts to protect nature in the Danube Delta. According to the decision of International Co-ordinating Council of the UNESCO Programme on Man and Biosphere of 2 February, 1999 the Bilateral Romanian-Ukrainian Biosphere Reserve "Danube Delta" was established. The inauguration of the reserve took place in Ukraine on September 23-24, 1999.

The Ministry would like to express its great satisfaction on fruitful cooperation with the World Bank on the project.

Sincerely yours,

Deputy Minister

 M. Stetsenko

Ministry for Environmental Protection and Nuclear Safety of Ukraine

COMPLETION REPORT

**DANUBE DELTA BIODIVERSITY PROJECT
GET GRANT TF 28654**

**KYIV
1999**

ABBREVIATIONS AND ACRONYMS

DP	- Danube Plavny Reserve
DPA	- Danube Plavny Reserve Authority
GEF	- Global Environment Trust Fund
DBR	- Danube Biosphere Reserve
SZP	- Stentsovsko-Zhebrijanskije Plavny
GIS	- Geographical Information System
MEPNS	- Ministry for Environmental Protection and Nuclear Safety of Ukraine
SGP	- Small Grants Program
NGO	- Non-governmental Organization
RDBU	- Red Data Book of Ukraine
IBRD	- International Bank for Reconstruction and Development
RIZA	- Institute for Inland Water Management and Waste Water Treatment
WWF	- World Wildlife Fund
PIU	- Project Implementation Unit

CONTENTS

A The Global Environmental Facility (GEF)

A.1. Danube Delta

A.2. Purpose

A.3. Objectives

B. Project Objectives

B.1 Project Description

C. Evaluation of Project Objectives

D. Achievement of Objectives

D.1. Project Objectives

D.2. GEF Objectives

E. Project Performance

F. Monitoring and Evaluation

G. Key Lessons Learned and Impact

On July 19, 1994 an agreement was signed between Ukraine and the International Bank for Reconstruction and Development (IBRD), acting as Trustee of the Global Environment Trust Fund (GEF) totaling 1.100,00 (one million one hundred thousand) SDR (on equivalent \$ 1.500.00) for funding the DANUBE DELTA BIODIVERSITY PROJECT. Ministry for Environmental Protection and Nuclear Safety of Ukraine (MEPNS) was assigned as the body responsible for the fulfillment of the project, and the Interecocentre - Project Implementation Unit (PIU) for this project.

A. The Global Environmental Facility (GEF)

A.1. Danube Delta

The Danube Delta is the largest and least damaged wetland complex in Europe, covering about 600,000 ha. The Ukrainian part of the Danube Delta and its associated wetlands cover some 150,000 ha in the southwest part of the Odessa region. The Kiliya branch of the Danube, with 60% of its total flow, forms the border between Romania and Ukraine, but for its last part lies entirely within Ukraine. The delta region encompasses a large number of islands, marshes, tributaries and canals, lakes with aquatic plants, and a mosaic of forests, grasslands and dunes in the wetland area. The lagoons or limans to the north of the Kiliya branch are a special feature of the Ukrainian Danube Delta wetland system. Land formations in the delta are dynamic, and within the last 10 to 20 years a new generation of islands has been formed. The flora of the Danube Biosphere Reserve (estimated during project implementation) comprised 950 identified species of vascular plants. These include some unique flora complexes. Fauna consist of more than 5,000 species, including 252 species of birds. These include the rare pygmy cormorant and red-breasted goose, and the common and Dalmatian pelican. Mammals (39 species in total) include the otter, muskrat, mink, little ermine, and wildcat. The fish fauna is represented by 91 species. There is strong evidence that some species are in decline due to pollution and over-fishing.

A.2. Purpose

The GEF Danube Delta project was closely linked with two other GEF and other donor-funded regional projects, one for the Danube River basin, and one for the Black Sea. The Danube River basin project had attracted funding of US\$ 56.7 million by 1994 year and focused on preparation of an action plan, improved river basin management, a regional environmental survey, inventory of biological resources, strengthening monitoring, data management and applied research. The Black Sea program, for US\$ 9.3 million, had as its objectives reversal of environmental degradation of the Black Sea, and rational natural resource management, development of a pilot pollutant monitoring program, database, policy and legislative enhancement, preparation of investment proposals and donor mobilization.

While the Romanian portion of the delta had been the focus of considerable international interest, the Ukrainian portion of the delta had as yet received very little

support from the international community. Yet the Danube Delta functions as an integrated series of ecosystems, all of which require protection. Initially, the Danube Delta GEF project planned assistance only to the Romanian part of the delta because Ukraine was not yet a member of the Bank. During the project identification, the scope of the project was amended to provide parallel support to the Danube Plavny Reserve (DP) in Ukraine and US\$ 1.5 millions of the US\$ 6 millions allocated to the Danube Delta Project were earmarked for it. The relative neglect by the international community of the Ukrainian portion of the delta highlights the importance of the GEF project to Ukraine.

A.3. Objectives:

The project objectives were to:

- (a) help develop sustainable management of the Ukrainian part of the delta and protect its biodiversity, and also to improve the management of the Danube Basin, Delta and Black Sea as part of a much larger regional program.
- (b) implement governmental policies concerning the protection of biodiversity and extend protected areas which were top priority to this GEF project.
- (c) link and coordinate the F Danube Delta Biodiversity project with two other GEF and other donor-funded regional projects, one for the Danube River basin , and one for the Black Sea.

B. Project Objectives

The Project Objectives were to:

- (a) protect and enhance the Ukrainian portion of the delta ecosystems and contribute to conservation of biodiversity within the delta;
- (b) strengthen the capacity of Danube Plavny Reserve Authority (DPA) to expand and manage the protected areas effectively, and continue the activities in the operational phase;
- (c) work with local community groups to introduce participatory protected area management in the Ukrainian part of the Danube Delta and ensure sustainable resource use in it;
- (d) coordinate the project with the GEF Romania Danube Delta Biodiversity Project.

B.1. Project Description

The project components were summarized as follows:

- B.2.1. *Institutional strengthening*: the Project had to provide for the expansion and restructuring of DPA to develop and implement effective management plans for protected areas in and around the delta, through training and technical assistance, and provision of infrastructure including an office and visitors center, construction of a house for the office, transport and scientific equipment and its maintenance, staff increase;
- B.2.2. *Strengthening the warden's section*: through staff increases, training in patrolling and protected area management, provision of equipment, and field offices and residential accommodation;
- B.2.3. *Strengthening ecosystem monitoring*: including flora, fauna and hydrological monitoring and creation of database and simple Geographical Information System (GIS), to assist with the development of management plans;
- B.2.4. *Pilot wetland restoration*: including restoration of hydrological circulation to the Stentsovsko-Zhebrijanskije Plavny (SZP) and monitoring of the impact, restoration of the Vilkovo town canals, studies for restoration of Yermakov Island partially being used by the farm for cattle and horse breeding, and studies of marketing alternatives for ecologically-friendly cultivated produce from Lenin fisheries kolkhoz;
- B.2.5. *Public awareness* and community involvement in protected area management both by DP staff and non-governmental organizations (NGOs);
- B.2.6. *Biosphere Reserve Establishment*: developing and implementing a program for protected area expansion and creation of a biosphere reserve through land use studies and using information provided from monitoring, and community participation, focusing in the first phase on protecting three priority areas (Kiliya Delta, SZP and Yermakov Island).
- B.2.7. *Regional Initiatives and Coordination*: with GEF activities in Romania, the GEF Black Sea Environment Management Program and other international initiatives;
- B.2.8. *Endowment Fund*: finance technical assistance for establishing a Trust Fund for financing recurrent costs of the biosphere reserve.

C. Evaluation of Project Objectives

C.1. The objectives of the GEF and project were clearly defined and they took into account the social, economic, institutional and financial aspects of the real needs for the protection of biodiversity and ecosystems, and management of the Danube Delta.

C.2. During the implementation of the project *new objectives were defined:*

- within the framework of the project in accordance with component 5 Public Awareness, a small grants program (SGP) was initiated in 1998 to better engage local communities in the management, to strengthen the education and awareness component, and to provide practical opportunities to strengthen NGOs;
- for joining efforts for protection and management of the Danube Delta as an entire system Ukraine initiated an idea on the creation of a bilateral Romanian-Ukrainian biosphere reserve.

C.3. During implementation some activities *have been changed :*

- in order to establish the scientific background for the creation of the Danube Biosphere Reserve (DBR), extension its area and preparation of Management Plans a Scientific Program was elaborated and carried out;
- instead of construction of a house for the director his apartment was renovated , etc., *and some had to be rejected;*
- pilot blocking the open connection between Danube water and one lake (“ Lazarkin Kut”) in the DP reserve was rejected because during research it was identified the “kut” would lose its great fishing and biodiversity significance after the blocking;
- the canal dredging activities were not completed fully as defined in the project due to the request of the Vilkovo City Council which took into account the opinion of the local inhabitants rejecting further works;
- the allocated US\$4,000 for studying the possible conversion of Lenin Kolkhoz fish ponds to a more remunerative production, preferably for the eastern European market, was spent for another purpose because of substantial changes in the economic state of Ukraine and region.

These changes in the objectives and activities had a positive impact to the project as far as they provided an integrated approach and allowed to achieve the most important results by means of more effective use of project funds.

D. Achievement of Objective

The project was implemented largely as planned and the achievement of GEF and project objectives was mostly substantial. This has repeatedly been emphasized by the Government, MEPNS, local authorities, officials. All the DBR's visitors are under great impression of the project outcomes.

D.1. Achievement of Project Objectives

Objective D.1.(a) Concerning the protection of the Ukrainian portion of the delta ecosystems and contribution to conservation of biodiversity within the delta the project has facilitated :

- increase of the warden staff (increased up to 13), creation of a special training program for wardens, warden training course in Netherlands, France, Romania, on-going training in Vilkovo, MEPNS-organized training, warden training manuals (wardens have been trained in regulation, law enforcement, patrolling, public relation and park management), equipping of the wardens, three warden stations were built and the renovation of a fourth. The stations were constructed to provide basic facilities (sanitary, sleeping, kitchen for the wardens and with extra room for fee-paying researchers and occasional tourists), vehicles and boats and outboard motors were purchased, a radio-telephone system covering the total area of DBR was installed;
- designing and implementing a Scientific Program. The main components of the Scientific Program were: analysis of ecological interplay of the main components of the Danube Delta ecosystems with the goal of elaboration of management plans for the DBR areas, development of background for advanced nature protection regulation of DBR area and methods for the management of its particular parts with the aim of protecting biodiversity of DBR, assessment of the resource potential of various areas of DBR, preparation of management plans for DBR and its particular areas, hydro-ecological, phyto- and zoo-monitoring. Scientists of research institutes, universities and DBR's staff were involved and relevant reports and project proposals were made. The program produced good results on the inventory of fauna and flora, the research justification for wetland restoration activities and the boundaries and zoning of the planned biosphere reserve, resource use studies and a monitoring system. It can be noted that 18.5% of vascular plant species and 63% of bird species occurring in Ukraine became under protection in DBR. Scientists have found 36 species of insects listed in the Red Data Book of Ukraine and European Red Data List, 7 species are totally new for science and 19 species are new for Ukraine. The table below provides data on numbers of flora and fauna species reported for DP, and corresponding figures estimated for DBR by the scientific program.

Taxonomic/ecological group	DP	DBR
Vascular plants	692	950
Birds	225	252
Mammals	25	39
Amphibians	9	10
Reptiles	2	5
Fishes	91	91
Insects	700	1937
incl. insects species listed in RDBU	6	40
Phytoplankton	632	717
Zooplankton	159	190
Microzoobenthos	63	87

It shows significant increasing an amount of species, which will be protected by the creation of DBR. The results of these research and monitoring activities are partly being summarized in a monograph “ Biodiversity of the Danube Delta Reserve, protection and management“, a design for creation of DBR and the Management Plan for DBR; - establishing the DBR in Ukraine in 1998, covering an area of 46,402.9 ha and extending the area of the former Danube Plavny Reserve (14,851 ha).

The DBR's staff was strengthened through an increase in numbers, a training program and technical assistance activities which introduced international best practices in wetlands protection and management. Creation of the DBR provided opportunities to manage natural protected areas in a more efficient way, for protection of the unique delta ecosystems of Ukraine, for scientific research and monitoring; it also gave an important impetus for region's sustainable development. Creation of the bilateral Romanian-Ukrainian biosphere reserve will result in further enhancement of international cooperation for conservation of biodiversity within the Danube Delta.

Objective B.1. (b) The objective of strengthening the capacity of DPA to expand and manage the protected areas effectively was accomplished in a few directions:

- increasing of the total staff of the DPA has been made from 14 to 35, several higher level staff (GIS, environmental education, ecotourism development) were hired,
- general training has been provided through: on-site English training, wetland study tour, on-site wetland management course, ecosystem monitoring, GIS, conservation biology, vegetation mapping, ‘bio-business’ workshops and training, USAID study tour of US protected areas, delta management workshop, participation in 6 international and many Ukrainian congresses and conferences;

- DBR has obtained its own juridical status and revenue account fed by revenues from fines, resource use fees, fee-paying visitors, and donations;
- the headquarters office had been built together with a garage, maintenance area, dock and mooring facilities, and equipped with rooms designated to serve as offices, conference rooms, research facilities, lodging facilities for ecotourism programs;
- purchased of one apartment for employees, renovated of 3 staff apartments;
- DBR had been equipped with furniture, office, radio-telephone system covering all the DBR's territory, monitoring and laboratory equipment (computers, communications audiovisual equipment etc.), supported by 3 vehicles, gauge tools etc.

Objective D.1.(c) On the Ukrainian side of the Danube due to modification/destruction of natural habitats specific management strategies were needed for wildlife, hydrological regimes, agriculture, forestry and ecotourism management in the delta. The data from the developed Scientific Program has been synthesized to prepare the draft management plan for DBR (for the following DBR's parts: Stentsovsko-Zhebriansky Plavny (SZP), Yermakov Island, Kiliya delta and Zhebrianska ridge) in regard to hunting, grazing, fisheries, farming etc. There were fed into the overall Biosphere Reserve Establishment Component to ensure appropriate and realistic management criteria, legislation, zoning (DBR was divided into core, regulated economic activity, buffer and anthropogenic zones), as well as serve to provide ongoing direction for the flora and fauna monitoring activities. It is important that the process of establishing DBR was done in a participatory manner, between government, NGOs, local communities, hunters, fishermen and inhabitants with mutual understanding of the need for protection of biodiversity and ensuring the sustainable resource use in the region.

To prepare local community, landusers, landowners and other stakeholders, the DPA and InterEcoCentre developed a Public Education/Awareness Plan which has being implemented through the following main activities:

- mass media campaign (8 videos on nature conservation DBR, broadcast on regional TV and distributed to local schools and organizations) ;
- educational activities to be offered at the headquarters/visitor center (Reserve's visitors center was renovated, equipped and is operational);
- children's environmental education (an ecological education program for school children and teachers was delivered for three years at the visitors center);
- an annual "March of Parks" event where the Reserve hosted the local community to a festival of environmental activities;

- a series meetings and workshops occurred involving the local community;
- 4 Reserve staff represent DBR in local government and resource user/stakeholder groups;
- ecotourism activities (the headquarters office has lodging facilities which may be used by scientists, bird watchers, photographers etc. ; in order to provide facilities allowing access for visitors to watch large numbers of migratory birds and waterfowl an ecological trail and bird watching house were build at the southern tip of the Danube delta; the 0 km Danube mark was put in place);
- publications (published are about 100 articles in local newspaper, calendars, posters; the environmental column in the local newspaper "Page for children" is published regularly);
- environmental actions (information boards at the fish station are established and regularly updated);
- NGOs training in Austria, Odessa and locally.

Great influence upon NGOs had the Small Grants Program which was implemented by the InterEcoCentre. After the competition among 86 applications 22 projects were selected and accomplished. Approximately 500 children and adults were engaged in implementing these projects. The project financed a range of activities, including a conference on the ecology and cultural history of the project area, stream-side afforestation and restoration, environmental films festival, brochures and posters on biodiversity conservation, an environmental summer camp for children etc. Under the accomplishment of the program, a two-day festival was held in Vilkovo.

To support local communities Vilkovo canals were dredged and public loading dock was constructed. It had a great positive effect in building relations between the DBR and the local community.

Based on the results of introduced participatory management approach the regional government and the Cabinet of Ministers of Ukraine signed their written approvals for establishing the biosphere reserve and the President of Ukraine signed the Decree on establishing DBR on August 10, 1998.

The Danube Biosphere Reserve Authority (DBRA) understands the concerns of the local population and considers that one of the DBRA's missions is to demonstrate the positive role of the reserve, especially in participatory protected area management and demonstrating sustainable use of its resources. The DBRA had opened a campaign and the prepared draft management plan for DBR and in particular for SZP drew great attention of scientists, landusers and landowners, inhabitants, NGOs, officials, government, MEPNS, RIZA, WWF. The management plan for DBR was discussed with

substantial involvement of local communities through a series of meetings and workshop and supported public awareness activities in the local community. It was endorsed by the stakeholders and published in 1999.

The growth of reeds in the SZP have reduced its open water habitat and fisheries productivity and impeded water flows. The need was recognized to restore water circulation in the plavny (i.e. reed beds) and to undertake proactive management measures to restore habitat productivity, such as controlled burns, grazing and mechanical removal of the dense reed beds. The local communities had been using uncontrolled small fires around the margins of plavny to decrease reed growth and maintain productivity for grazing.

The project financed next activities:

- pilot reed harvesting and testing for commercial market;
- TOR developing for burning based on the results of the Scientific Program and getting the government permission to burn, a pilot burning was begun;
- reducing the grazing pressure on Yermakov Island;
- a canal along the Vilkovo-Primorskoye road was dug;
- a siphon underneath the Danube-Sasyk canal and culverts underneath the Vilkovo-Primorskoye road were cleared.

The first undertaken steps toward implementation of the management plan for SZP area improved the ecological situation in some parts of its territory.

The Danube Plavny Authority's approach to working with local user groups to gain consensus on management of DBR, along with the environmental education and NGO training/small grants program, improved relations with local villagers and gained more support for the biosphere reserve's mission.

Objective D.1.(d) The coordination of the project with the GEF Romania Danube Delta Biodiversity Project was made through the following activities:

- a few field visits by Romanian representatives to DBR and Ukrainian ones to Romania;
- Ukrainian participation in annual technical meetings held by Romanian Danube Delta Biosphere Reserve Authorities;
- regular exchange of scientific and other information. The project fostered modest cooperation, especially on technical exchanges. Joint studies were carried out on

sturgeons and their protection, in bird monitoring and vegetation mapping the Danube Delta;

- Ukrainian wardens training was held in Romania and Romanian wardens training was held in Ukraine;
- cooperation with Romania Danube Delta Biosphere Reserve (bilateral Romanian-Ukrainian transboundary biosphere reserve was established);
- cooperation with NGOs and other organizations .

D.2. GEF Objectives

Objective D.2.1.(a) Given the isolation and neglect of the DP and the Ukrainian Danube Delta, and the very limited attention that it had received from the international community and from Ukrainian authorities by the beginning of the project, support from the GEF was of particular benefit. It has increased international understanding of the ecological process of the Ukrainian portion of the Danube Delta. Most important, by strengthening and reorienting the DPA the project has helped to introduce public support for the effective sustainable protected area management that was necessary to conserve the biodiversity of this key part of the delta. It has been established appropriate planning for sustainable resource use in the areas surrounding the core zone of DBR, conserving and restoring breeding grounds for delta wildlife.

The bilateral Romanian-Ukrainian transboundary biosphere reserve will be serving as a further catalyst for improvement management of the Danube Delta and good background for the sustainable management of the Danube River basin and the adjoining part of the Black Sea.

Objective D.2.1(b) During implementation of the project the Cabinet of Ministers of Ukraine adopted the decision “On Strategy of Biodiversity Conservation”. That means that biodiversity was recognized to be one of priorities of the “Trends of State Ecological Policy of Ukraine in the sphere of environment protection, use of natural resources and provision of ecological safety”, which were approved by the Verhovna Rada (i.e. Parliament) of Ukraine on March 5, 1998. Among others there are “The Main Lines of Activity in Biodiversity Conservation”, namely: *conservation* of coastal, marine, river, wetland, lake and marshland, meadow and steppe, woodland, and highland ecosystems; *ecological* of agricultural landscapes and other territories of intensive economic activity; *conservation* of species and populations; *creation* of a national ecological network. An Operational Plan for Danube Delta Biosphere Reserve has been prepared, the main components of which will be financed by the National Academy of Sciences.

Objective D2.1. (c) Within the framework of other donor-funded regional projects the following activities which are closely link to the “Danube Delta Biodiversity Project” occurred: a center for Biodiversity Conservation has been created; National reports on

State of Biodiversity Conservation Programs have been prepared and published; a draft of an International Agreement on the Conservation of Cetaceans of the Black Sea, a report entitled Wetland Conservation in Black Sea Region of Ukraine and Action Plan have been prepared, coordinated Action Plans for Conservation and Protection of Black Sea Biodiversity have been prepared.

E. Project Performance

E.1. The performance of the project met certain difficulties. The following ones can be noted:

- the project financed the construction of headquarters building for the Danube Plavny Authority, a contract for which was originally awarded to a private sector construction firm. The lack of experience by both the construction contractor and the government institutes traditionally responsible for construction, the enormous changing the local construction material prices during project implementation, contributed to costly delays in construction. The headquarters building activity was completed two years later than planned. The delay slowed the completion of certain components, and to some extent diluted attention that could have been devoted to wetlands management activities late in the project;
- in the final year of the project it was identified the necessity of licensing the use of foreign bank accounts and on-going involvement of the National Bank in it. As a result of substantial delays in obtaining the National Bank's license for the operation of the Special Account, disbursement was interrupted and the completion of project activities was slowed for a few months;
- the project was implemented in a period of severe national problems, with cuts in budgetary support for most state institutions, including the National Academy of Sciences. The reserve staff usually received their salaries from one to four months late;
- transition of Ukraine to a market economy. It caused the problems in procurement at the beginning the project, in spending funds and disbursing. Pertaining to the project implementation laws and regulations changed quite frequently (sometimes within a year);
- substantial inflation in Ukraine during the implementation period and financial difficulties;
- the project's modest accomplishments in the restoration of Stensovsko-Zhebrianski Plavny were influenced by a delay in establishment of the biosphere reserve and by the time needed to develop consensus among Ukrainian stakeholders on how to best manage this site.

E.2. A few positive factors that affected the project were:

- experience with implementation of the GEF Transcarpathian Biodiversity Protection Project (it was the same project implementation unit - InterEcoCentre), that had been under implementation for one year when the Danube Delta Biodiversity Project was launched;
- international interest to the project. From the outset of implementation, there was strong interest of some international organizations in forming partnerships with the MEPNS and Danube Plavny Authority on implementation of the project. One of these partners was the Dutch RIZA, which provides technical assistance in water resources management and wetlands conservation worldwide, with special emphasis on improving the management of delta ecosystems. The project's cooperation with RIZA spanned the project implementation period, and is planned to continue in the operational phase;
- fruitful, coordinated and efficient work of the World Bank, MEPNS and InterEcoCentre. The World Bank's staff should be highly praised for their excellent work, mutual understanding and assistance . Understanding and assistance of the World bank disbursement division helped to overcome all the financial difficulties. There have been many people and organization, including ministries, NGOs, scientific institution, universities and commercial enterprises who have helped to get down this road. However the key factor was the involvement of the local population.

F. Monitoring and Evaluation

The World Bank carried out on a regular basis the monitoring and evaluation of the project performance. The MEPNS permanently controlled and supervised the process of the implementation of the project. There has been tight cooperation with all branches of authority.

G. Key Lessons Learned and Impact

The Project was the second the World Bank and GEF project, following the earlier "Transcarpathian Biodiversity Protection Project". The "Danube Delta Biodiversity Project" was extremely important in promoting a positive image of Ukraine among international organizations; it laid a good foundation for further international environmental activities and participation of new financial institutions interested in supporting various projects in environmental protection and conservation. Because of the enthusiasm and efforts of hundreds of people, all obstacles and difficulties were overcome, and the Project has been brought to its successful completion.

The "Danube Delta Biodiversity Project" belongs to the 387 projects recommended for registration by the International Selection Commission to participate in the EXPO-2000 Program "Projects all over the World", Germany.

The implementation of the Project greatly influenced reserve's activities and the social and ecological situation in the region, in particular:

- the aim of reserve's activities has changed - it shifted from "nature protection" toward nature conservation and sustainable use of natural resources, involving all the strata of the local population;
- new data on biodiversity of the region were obtained; conservation methods and approaches were revised and re-evaluated; management plans for conservation biodiversity and sustainable use of natural resources have been set up;
- DBR has become a leader in forming the policy of using natural resources in the region;
- a better warden service resulted in better nature protection due to the new staff recruitment policy, warden training courses (including training abroad), and the modern facilities and equipment now available to DBR's wardens.
- the awareness level of the local population and authorities has risen, especially in issues related to biodiversity conservation; this resulted in a wider and better support to DBR's actions concerning nature conservation.
- The small-size grants program extremely stimulated environmental activities of NGOs, local communities and individuals in the region
- Preconditions were created for development of ecotourism in DBR.

The project had a positive impact to:

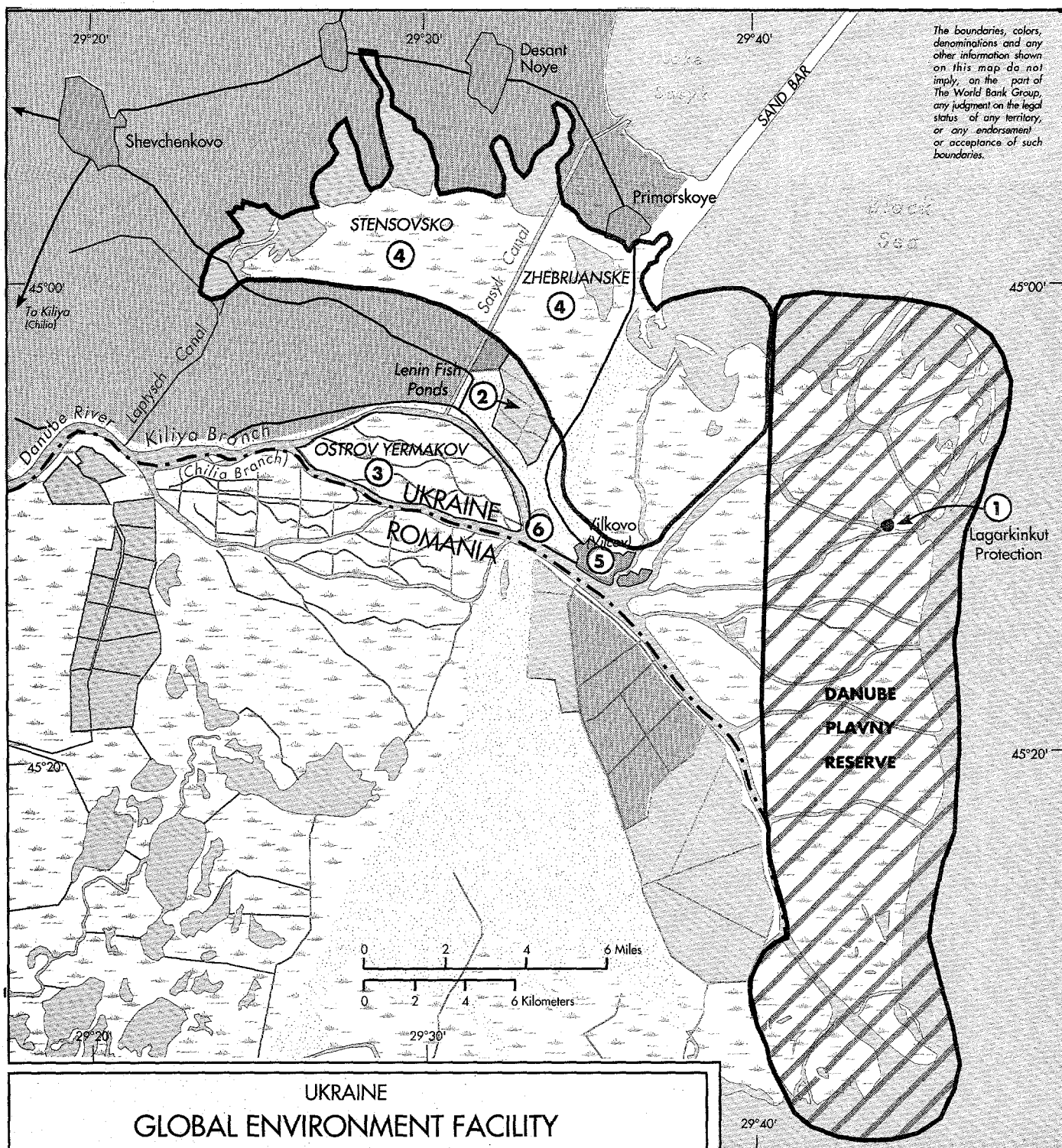
- *MEPNS* through training staff, learning new approaches to participatory protected area management and sustainable resource use, familiarizing staff with progressive international experience in nature protection;
- *scientists* through participation in training, workshops, conferences, symposiums;
- *NGOs* through training, strengthening capability, participation in the small grants program, workshops;
- *InterEcoCentre* through training, strengthening capability.

DBR enjoyed a wider support from local people, and a better understanding of the tasks and functions of the reserve. The project will have further positive impact on social and environmental development of the region through introduction and promotion of ecotourism. Creation of DBR provided opportunities to manage natural protected areas in a more efficient way, for conservation of unique natural complexes, for scientific research and monitoring; it also gave an important impetus for region's sustainable development.

It is necessary to emphasize the role of the Central Board of National Nature Parks and Reserve's Affairs, the Danube Biosphere Reserve, the InterEcoCenter, and, of course, the World Bank in the Project. Now, with its completion, it is especially important to disseminate the results obtained by scientist and conservationist, to continue the activities in the operational phase, and to use received knowledge and experience for other projects and in other nature conservation units and protected areas of Ukraine.

MAP SECTION





UKRAINE
GLOBAL ENVIRONMENT FACILITY
UKRAINE DANUBE DELTA BIODIVERSITY PROJECT

PROPOSED ADDITIONAL PROTECTED AREA

PROJECT ACTIVITIES:

- LAGARKINKUT PROTECTION
- LENIN FISH PONDS
- OSTROV YERMAKOV
- STENSOVSKO - ZHEBRIJANSKE PLAVNY
- TOWN CANAL RESTORATION
- DANUBE PLAVNY RESERVE AUTHORITY HEADQUARTERS

- EXISTING PROTECTED AREA
- EXISTING IRRIGATED AREAS
- EXISTING FISH PONDS
- CANALS
- RIVERS
- MARSHY AREAS
- SANDY FOREST AREAS
- MAIN SETTLEMENTS
- INTERNATIONAL BOUNDARIES

