

## GEF Project Brief

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**Project Number:**

**Project Name:** Belarus, Russia, Ukraine: Preparation of a Strategic Action Programme (SAP) for the Dnieper River Basin and Development of SAP Implementation Mechanisms

**Project Duration:** 3 years

**Implementing Agency:** UNDP

**Executing Agency:** UNOPS<sup>1</sup>

**Requesting Country or Countries:** Russia, Belarus, Ukraine

**Eligibility:** Eligible under para. 9(b) of GEF Instrument

**GEF Focal Area(s):** International Waters

**GEF Programming Framework:** Operational Programme #8: Waterbody-based

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### 2. Summary of Expected Outcomes:

The long-term objectives of the project are to remedy the serious environmental effects of pollution and habitat degradation in the Dnieper River Basin, to ensure sustainable use of its resources, and to protect biodiversity in the basin. This will be catalyzed through the development of both a regional Strategic Action Programme (SAP) as well as individual National Action Programmes (NAP) outlining country and donor commitments to baseline and additional preventive and remedial actions on behalf of the basin. The implementation of incremental (e.g. transboundary issues) components of the SAP would follow in a second phase to this project. The proposed Dnieper River Basin Programme would also work towards enabling the three riparian countries to implement the principles of coordination and cooperation stipulated by the agreement signed in 1992 by the governments of the republics of Russia, Belarus and Ukraine. River basin management capacity both at the level of individual countries and at the regional level would be strengthened, and wider global benefits would accrue to the basin countries as well as those of the Black Sea, an important international water body significantly impacted by human activities within the Dnieper River basin.

<sup>1</sup> UNOPS served as Executing Agency during the PDF-B phase and will continue to serve as interim Executing Agency for the UNDP Project Document preparation phase. During this period, final executing and project management arrangements will be determined by the concerned riparian countries and UNDP-GEF prior to Council review and CEO endorsement of the final project document.

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3. Costs and Financing (Millions \$US)

GEF Financing

<b>Project</b>	<b>:\$7,000,000</b>
<b>PDF</b>	<b>:\$261,000</b>
<b>Sub-total GEF</b>	<b>:\$7,261,000</b>

Co-financing:

IA	:\$0
Other International	:\$3,000,000 (IDRC)
Government	:\$100,000 (Russia)
	:\$4,200,000 (Ukraine)
	:\$300,000 (Belarus)
Private	:\$0

Total Project Cost: **:\$14,889,000**

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4. Associated Financing (Million US \$): \$26.915 million (see Annex 1)

5. Operational Focal Point Endorsement: \_\_\_\_\_

Name: Vasyl Vasylchenko Title: Deputy Minister  
Organization: Ministry for Environmental Protection and Nuclear Safety of Ukraine  
Date: February 19, 1998

Name: Alexander Solovyanov Title: Deputy Chairman  
Organization: State Committee of the Russian Federation on Environmental Protection  
Date: February 19, 1998

Name: Alexander Apatsky Title: Deputy Minister  
Organization: Ministry of Natural Resources and Environmental Protection, Belarus  
Date: February 19, 1998

6. IA Contact:

David Vousden  
GEF Regional Coordinator  
Regional Bureau for Europe and the CIS  
FF-580  
1 United Nations Plaza  
New York, NY 10017  
Tel. 212 906 6402  
Fax 212 906 6595  
e-mail: [dvousden@undp.org](mailto:dvousden@undp.org)

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## **I. Background and Context (Baseline course of action)**

### **INTRODUCTION**

1. The Dnieper River (Figure 1) is the third largest river system in Europe. Its tributaries drain significant industrial and residential centers in Eastern Europe/Russia, creating a vastly complex river-system of high economic, social and environmental value. Draining an area of 509,000 square kilometers, the Dnieper is also the second largest river emptying into the Black Sea. Highly altered by a long series of reservoirs, the Dnieper is hardly a self-regulating river-ecosystem, and the adjoining hydro-electric facilities, nuclear power stations --- including two remaining reactors from the still operating Chernobyl station --- and other heavy industrial complexes have caused environmental and socioeconomic damage on a region-wide scale. Extensive forest and wetland reclamation for agricultural development and large urban populations with insufficient levels of sewage treatment, further serve to amplify the severe environmental and health problems which greatly impact the ecosystems and inhabitants not only of the Dnieper River Basin, but also of the entire Black Sea region.

2. As a result of the broad social, economic and environmental significance of this transboundary river and ecosystem, the development and execution of a coordinated Dnieper River Basin Programme and the design and implementation of a Strategic Action Programme is of high priority for the governments of the region, particularly the riparian countries of Russia, Belarus and Ukraine. The Dnieper River Basin Programme proposed herein will assist the countries in improving regional capacity for management of transboundary water resources and create an adequate management structure to help to address environmental degradation in the Dnieper River Basin. In addition, the programme, by enabling the reduction of the flow of transboundary contaminants such as nutrients to the Black Sea, will contribute to the GEF's "Black Sea Basin-wide Approach" to the rehabilitation of the highly degraded Black Sea ecosystem. The proposed project, by facilitating the development and ultimate implementation of Strategic Action Programmes, both regional and national, will also work to better integrate environmental concerns into local, national and regional policy, and improve water quality and the conservation of key ecological areas. The project is fully in line with the GEF Operational Strategy under the International Waters Operational Programme #8 for transboundary waterbodies both for freshwater systems (the Dnieper Basin) as well as semi-enclosed marine or sea-based ecosystems.

### **BACKGROUND - THE DNEIPER RIVER BASIN**

#### **Environmental Context:**

3. The Dnieper River is the third longest European river after the Volga and the Danube Rivers. The main river is 2,200 km long and drains an area of 509,000 km<sup>2</sup>. The Dnieper has its source in Eastern Russia (which contains 20% of the river basin) and flows primarily southward through Belarus (23% of the river basin) and Ukraine (57% of the river basin). The main stem and its tributaries drain an area of significant agricultural and industrial activity and regions of high urban

population. The Dnieper River is the primary water supply for a population of 22 million (in Ukraine alone) in the Basin. Poor water quality is associated with outbreaks of cholera, dysentery, typhoid, and hepatitis A. There are a number of regions valued for their biodiversity, especially in the upper tributaries of the forested regions of Belarus and wetland regions throughout the drainage area.

4. The Dnieper ultimately flows into the Black Sea at Kherson, contributing a significant amount of the Sea's total freshwater input. The main tributaries of the Dnieper include the Berezina (Belarus), Pripjat (Ukraine to Belarus to Ukraine), the Desna, Psel and Vorskla (Russia to Ukraine) and the Inhulets (Ukraine).

5. The flow of about 200 small rivers in the Basin is partially regulated while the flow of an additional 600 rivers (total length of 19,500 km) is fully regulated. The main stem of the Dnieper River is comprised of a series of reservoirs, many with hydro-electric facilities or nuclear reactors. Eight of the fifteen operating nuclear reactors in Ukraine lie within the Dnieper drainage. Of particular note are the two reactors still operating at Chernobyl on the Pripjat River, and an additional six reactors in the Zaporozhskaya atomic energy station on the mid reaches of the Dnieper itself. Radioactive wastes from the Chernobyl accident have permeated local ecosystems, including the extensive Pripjat wetlands on the Ukrainian/Belarussian border and sediments in the river and reservoir bottoms. There is particular concern that the radioactive sediments behind the Kievskoy Moriye dam may contaminate areas downstream in the event of spillovers due to inadequate water level management or possible breakage of the dam just upstream of the capital city of Kiev. Runoff from radioactive tailing wastes from uranium mining throughout the drainage is also a key concern, as the industry is not well regulated.

6. The Dnieper is the second largest river discharging into the Black Sea and is also a significant pollutant source to the Black Sea and one source of ecological change in the Black Sea. The increase of nutrients flowing from the Dnieper as well as from other rivers (the Danube) into the Black Sea has caused widespread eutrophication and hypoxia. Only 45% of the total municipal waste water flowing into the Dnieper is treated, resulting in high levels of biological oxygen demand (BOD), microbial contamination, and nutrient loading.

7. Approximately 90% of the Dnieper Basin is cultivated or abandoned farm land. Additional nutrient, pesticide and herbicide loading results from extensive agricultural activity and runoff from these cultivated or abandoned lands, as well as from livestock raising and extensive erosion from other devegetated areas. The increase of nutrients flowing from the Dnieper into the Black Sea has caused large blooms of blue-green algae in Odessa Bay. In addition, upwellings of oxygen deficient waters have caused hypoxia which, between the 1970-90s, resulted in the death of 60 million tons of bottom organisms, including 5 million tons of fish.

8. The Odessa Branch of the Institute of the Southern Seas began studying eutrophication of Odessa Bay in 1953. Observations are made from 53 monitoring stations every year in Odessa Bay and Galisky Bay. The longest period of observation has been from the 70s until now, and there has been a noted ten-fold increase in nutrients and a 10 to 100-fold increase in plankton levels (3 million cells/liter). Water transparency has decreased to approximately 2 meters, causing productivity of bottom algae to decrease.

9. The Dnieper provides a 15% contribution to the annual fisheries catch of all Black Sea countries.

In 1994 the industrial fish catch within the Ukrainian part of the Dnieper (11,900 tons) experienced more than a 55% drop over 1990 (27,051 tons). Organic, radioactive and industrial pollution all contribute to this steady decline in productivity. Recent slight improvements in the condition of anoxia and hypoxia on the shelf principally reflect a temporary decrease in economic activities throughout the region. This is a temporary phenomena and will last only until the economic activities again increase; therefore there is a window of opportunity in which to develop strategies and measures to address the pollution problems that are detrimentally affecting the Black Sea shelf and ecosystem, mechanisms to prevent transfrontier pollution, further depletion of stocks of fish and other biota. This is the ideal time to create an international management regime for the Dnieper, to avoid related potential friction and conflicts among Black Sea and Dnieper Basin countries, and to link Dnieper basin activities to the emerging basin-wide approach to the rehabilitation of the Black Sea.

10. A ranking of the Black Sea priority problems in terms of the influence of pollution contamination on marine life follows: 1) eutrophication, 2) microbial pollution, 3) the presence of toxic substances such as oil, and 4) over harvesting of marine life.

11. Industrial activity in the Dnieper River Basin is poorly regulated, resulting in excessive discharges of organic and inorganic contaminants including petroleum hydrocarbons, PCBs, nitrogen compounds, phenols, surfactants, and heavy metals, to name but a few, into Dnieper basin waters.

12. The Dnieper river basin ecosystems have undergone major changes over the past several centuries. During the 17-18th centuries forest coverage in the Basin was 75-80%, by 1945 this was reduced to 25%. Urban areas have grown significantly, as have the areas of drained wetlands, which now cover 16% of the Belorussian part of the Basin and represent a total of 1.5 million ha.

13. Glaciation during the Quaternary ice ages ground up and moved rocks and debris and deposited them as moraines. These form the current characteristic hilly terrain and large areas of low-lying land which are often filled by lakes or marshes. In one area, the lowland-wetland complex of the Pripyat river covers thousands of acres, provides valuable habitat for flora and fauna, and is a major migratory route for birds of passage. However, large-scale reclamation activities have had a profound impact and reduced the biological diversity of wetland habitats. Additionally, the Chernobyl disaster has severely affected several million hectares of land in the Pripyat wetlands, where the sediments contain high amounts of radioactive cesium and strontium.

14. Forests presently cover an estimated 14.3% of Ukraine's total land area. Total timber cutting in forests reaches 13 million m<sup>3</sup>/year. Practically the entire forest stand in Ukraine is located within adverse impact zones of industrial emissions, including releases from transboundary air pollution sources, or from radiation fallout. The forests are losing their natural capacity to resist disease and other self-regulating abilities. The Ukrainian Forestry Research Institute reports that outbreaks of forest pests have increased by nearly 60% in the last decade; it also reports that greater numbers of trees exhibit greater (2.3 times) incidence of low foliation over the past three years. In Belarus, the reclamation of lands for agriculture has resulted in the disappearance of more than 25% of the habitats for mushrooms and wild berries.

15. The construction of the Dnieper hydro-power cascade along with other negative anthropogenic

impacts on the river-bed has resulted in the disappearance of many traditional and valuable native fish species. By the beginning of this century, fish species such as lamprey, sturgeon, white sturgeon and salmon had disappeared. And during the last 300 years about 20 wild animal species have disappeared from the basin (including aurochs, fallow-deer, sable). An information booklet of Ukraine's environment cites 44,800 animal species, made up predominantly of protozoans, nematodes, worms, insects, and molluscs. However, the majority of research or conservation efforts focus on the reproduction and rational use of vertebrates represented by 200 fish species, 18 amphibian, 20 snakes, 101 mammal, and more than 400 bird species. Artificial breeding and subsequent wild release of game animals has been conducted for mammals and birds including fallow deer, boars, marmots, pheasants, ducks and coots. Forty-two percent of the 164 animal species in the Red Data Book of Ukraine are noted to inhabit the Dnieper Basin.

16. Three protected wetland areas in the Dnieper Basin enjoy recognition under international agreements. These include the Pripyat wetlands (12,000 ha), Stokhod wetlands (10,000 ha) and the Dnieper wetlands (26,000 ha). However the total amount of protected natural areas (including zoos, hunting grounds, and natural monuments) in the Ukraine amounts to only 2.6% of the total area. Within Belarus, the area of specially protected zones and nature reserves covers 6% of the total forested areas, 20% of swamp areas and 1% of meadow lands, of which the largest reserves are the Berezinsky Biosphere Reserve and the Pripyat Landscape and Water Reserve. The total of protected areas amount to 1.7% of the area of the Dnieper River Basin, an amount that is inadequate to protect ecosystem diversity.

### **Institutional Context:**

#### Ukraine:

17. The Ministry for Environmental Protection and Nuclear Safety (MEPNS) is responsible for administering environmental policy in Ukraine. It consists of a central department and state departments in the Republic of Crimea and 24 administrative regions, as well as the Superior State Ecological Inspection and Central Board of Natural National Parks and Reserves Management. The number of personnel in 1996 totalled more than 3,000 (including 240 in headquarters). The MEPNS, according to the law on "The Protection of Natural Environment" is authorized to exercise state control of the use and protection of land, mineral resources, surface and ground waters, air, forest, vegetation, animal wildlife, marine environment, natural resources of territorial waters, continental and maritime zones of the country and ecological safety.

18. The MEPNS has formulated a plan for environmental protection. The first stage (1993-1997) was supposed to develop a new system for managing the environment, adopting legal regulations, and preparing a reliable assessment of the state of the environment. Phase two will focus on improvement of public health, and the third envisages establishing an ecologically balanced system for managing sustainable development.

19. Environmental Impact Assessment is now being used for programmes, policies and projects. At the national level, the revision and coordination of strategies, plans and programmes in cross-sectoral and sectoral areas began in 1992. Since then, 40% of the legislation, 30% of the decrees and 20% of the administrative guidelines and instructions have been reviewed. A lack of funding has been the main constraint to implementing international instruments related to sustainable

development recently signed or ratified.

20. Other institutions, including the Ministry for Forestry, Committee on Geology and Natural Resources Use, State Committee on Water Management, State Committee on Land Use are also involved in specific sectoral issues in the area of environmental protection. State Ecological Inspection exercises control functions. However there is no system of ecological monitoring that could meet the requirements designed by the Law "On the Protection of the Natural Environment". Monitoring is conducted by several institutions. The goal is to establish a uniform system of monitoring by the year 2000.

21. At present there is no strict clarification of the division of responsibilities among these various ministries. This has led to a refocussing of strategy to a functional approach rather than sectoral as previously envisaged. The new structure better correlates with the Law, and more focus can be put on ecological safety that is vital for overall national security in Ukraine. Control functions, as foreseen by Article 20 of the General law, have been given to the State Ecological Inspection under MEP and for this purpose it has gained more freedom of action within the system. This enhanced role was confirmed by the Cabinet of Ministers in 1993.

22. A Strategy (Conception) for Sustainable Development, to be approved by the President, is being formulated by the MEPNS, Ministry of Economy and National Academy of Sciences.

### **Legislative Context:**

23. Basic components of existing water legislation in the region include sanitary standards, or Maximum Allowable Concentrations (MAC's), and Maximum Allowable Discharge (MAD) limits of effluent discharges into water bodies. Sanitary and fishery standards of surface water quality are similar among the three Dnieper basin countries, but differ significantly from water quality standards enforced in the EC countries. The existing system has not been subject to significant changes during the past 20-30 years; only the list of limited substances has been continuously expanded and refined. In 1994, sanitary and chemical water quality standards were not met in 14% of water samples taken at centralized water supply systems in the basin; similarly, bacterial content standards were not met in 9% of samples. In rural areas rates of standards violation were even higher: 18% and 14%, respectively.

24. The provisions of the existing regulatory system are focused on meeting the requirements of individual water users with no consideration of environmental aspects. The lack of ecological standards, as well as no consideration of specific local conditions results in often improper applications of the sanitary and fishery standards. No economic tools to enhance compliance and enforcement of the established standards exist in the basic legislative document, "The Rules of Surface Water Protection", with consequent low incentives to introduce 'green' technologies, closed cycle water supply systems, and wastewater pre-treatment facilities.

### **Previous, Ongoing and Planned Baseline Activities: (see Annex 1)**

## **II. Rationale and Objectives (Alternative course of action)**

## PROJECT OBJECTIVES

### Overall global environmental and development objective

25. The *long-term objectives* of the project are to remedy the serious environmental effects of pollution and habitat degradation in the Dnieper River Basin, to ensure sustainable use of its resources, and to protect biodiversity in the basin. The project will enable the implementation of a series of complementary investigative, preventative and curative actions that will be elaborated in a Strategic Action Programme for the Basin region. The proposed Dnieper River Basin Programme would work towards enabling the three riparian countries to implement the principles of coordination and cooperation stipulated by the agreement signed in 1992 by the governments of the republics of Russia, Belarus and Ukraine. The management capacity both at the level of individual countries and at the regional level would be strengthened; and wider global benefits would accrue to the basin countries as well as those of the Black Sea, an important international water body dramatically affected by the activities within its tributary Dnieper Basin.

26. The economic, social, and environmental well-being of all nations with Dnieper River or Black Sea shores have historically depended upon the vitality of those bodies of water. Development and implementation of the Dnieper SAP will measurably restore and maintain that vitality, which continues to be of great importance to the resource bases of those nations currently undergoing economic transformation. Recognizing the significant regional and global value of the Dnieper River Basin and its direct connection to and influence on the Black Sea, riparian (Russia, Belarus, and Ukraine) and donor nations (Canada, USA, and EU) have already begun implementation of several bi-lateral water management projects. Ukraine has developed a National Dnieper River Basin Program, and all three Dnieper nations have demonstrated strong commitment to strengthening international cooperation in the management of the regional basin.

27. The three riparian nations convened in 1995 and agreed upon a memorandum which requested UNDP assistance in the development of a GEF Environmental Management Program for the Dnieper River Basin. Funding of this request would build upon and be leveraged by 1) the demonstrated financial commitments of the riparian nations in accordance with national priorities, 2) the previously completed work, including the TDA, and 3) the funding of donor nations.

28. The TDA and preliminary SAP processes during the project preparatory phase led to recommendations for improvements and restructuring of the system for institutional capacity building and the establishment of a new transboundary institutional framework. Needed improvements were identified in the following areas (detailed recommendations are summarized in Annex 5):

1. Coordinated evaluation and management of transboundary priorities
2. Facilitation of the SAP formulation, review and endorsement process
3. Financial and legal mechanisms for improved pollution control strategies
4. Formulation and harmonization of monitoring and management schemes
5. Conservation of biodiversity and sustainable land use management
6. Communication among stakeholders; public awareness and participation



29. All project objectives comprise activities which will strengthen regional capacity for cooperation and management of basin resources and reduction of transboundary pollution, as well as enhance communication among stakeholders primarily through increased public awareness and participation in addressing these transboundary pollution and resource protection issues.

### **Specific Project Objectives (Alternative Course of Action)**

Objective 1. Create a transboundary management regime and coordinating body;

Objective 2. Assist countries in SAP formulation, review and endorsement process;

Objective 3. Improve financial/legal/operational mechanisms for pollution reduction and sustainable resource use;

Objective 4. Formulation of National Action Plans by Interministerial Committees;

Objective 5. Improve conservation of biodiversity in the Dnieper River Basin;

Objective 6. Enhance communication among stakeholders and encourage public awareness and involvement in addressing the problems of the Dnieper Basin.

Objective 7. Build capacity for SAP implementation.

### **GEF PROGRAMMING APPROACH**

30. Based on the experience of the GEF Danube project, the Dnieper countries consider the GEF to be a key donor, one that will adequately focus on institutional development and capacity building on the international level in an integrated, comprehensive manner. GEF funds will be used to address transboundary issues which would be neglected if addressed only from a national perspective. The SAP will focus on the ecosystems (rivers, lakes, aquifers and wetlands) and the complex regional biodiversity of an international river draining to the severely degraded Black Sea and will involve international, national, and local governmental institutions, industries, and agricultural communities, all of which are essential players in sound river basin management.

31. The transboundary nature of pollutant flows along an international river and discharging into a significant international water body warrants GEF support. The proposed project will help the riparian countries of the Dnieper Basin overcome regional barriers to working collaboratively and help them resolve priority transboundary environmental concerns identified in the TDA and SAP processes. The proposed project ensures coordination among implementing agencies, countries, and other actors, and generates programmatic benefits for the global environment that would not otherwise be achievable. Additionally, the individual countries intend to address priority concerns such as radioactive contamination, transport, and reservoir management; however the incremental resources needed to support collaborative actions addressing transborder management and regulatory strategies further warrant GEF support. This approach is fully in line with the GEF Operational

Strategy for International Waters, as well as for the Waterbody Based Operational Programme (#8). Important characteristics of this operational program are: “a) the focus on addressing specific impairments of the waterbody such as reducing eutrophication or toxic substances on inland waters; b) support for the learning process for countries to work cooperatively and collectively in addressing imminent threats to their transboundary water resources.” The "specific impairments" in this case are largely related to nutrient discharges, radioactive contamination and other hazardous materials transport. "Imminent threats to their transboundary water resources" center around the management of the reservoir cascade, impact on fish stocks in the Dnieper and Black Sea, and precautionary measures to prevent the unexpected release of radioactive sediments from within the reservoirs.

32. The economic and ecological vitality of international waters and the Black Sea in particular depend largely on the quality of their freshwater inflows. The success of the Black Sea Basin Initiative is therefore dependent, *inter alia*, on the maintenance of an effective water quality program in the multi-national Dnieper Basin, which can best be attained through the development and execution of a well-designed SAP. The International Waters Operational Program also emphasizes "institutional building...and specific capacity-strengthening measures...". This project supports institutional capacity building for long-term regional cooperation as well as helping to build national capacities in environmental management, monitoring of priority pollutants, public awareness and preservation of transboundary living resources.

33. In the Waterbody-Based OP, GEF “will play a catalytic role in assisting a group of countries seeking to leverage cofinancing in association with national funding, development financing, agency regular programs, and private sector action for necessary elements of a comprehensive approach for sustainably managing the international waters environment.” In accord with the GEF International Waters Operational Strategy, this project, through its involvement in the larger Black Sea Basinwide Programme, also focuses on the seriously threatened ecosystem of a very significant international waterbody - the Black Sea. The considerable transboundary threats caused by activities such as the movement of hazardous contaminants including radioactive contaminants as well as organic pollution such as PCBs and oil seriously impairs the functioning of the surrounding Dnieper and Black Sea ecosystems as well as human health.

#### CURRENT PROJECT STATUS

34. The Project Development Facility (PDF-B) phase of the Dnieper River Basin program has concluded approximately 1.5 years after its initiation 1 July 1996 in Helsinki, when the three Ministers of Environment (Belarus, Russia, Ukraine) signed a letter expressing their intention to provide resources and participate equally in the development of the project. The PDF project identified the primary elements to be formulated in the next three year period of the GEF project. These include: Final revision and updating of the draft Transboundary Diagnostic Analysis; formulation and endorsement of a Strategic Action Programme (SAP) for the Dnieper River Basin for the countries of Belarus, Ukraine, and Russia; formulation of National Action Programmes (NAP) for each riparian country; formulation of a Priority Investment Portfolio (PIP) for the Dnieper River Basin; the identification of donors and financial mechanisms to support implementation of the SAP and funding of the PIP; preliminary steps to improve legal and financial mechanisms for environmental protection in the basin; identify key areas for biodiversity conservation; and enhanced public awareness of and involvement in addressing the environmental problems of the basin.

35. Financial support at this stage has included GEF preparatory (PDF-B) funding of \$261,000, co-funding of the governments in kind, and a Canadian IDRC in kind contribution of \$28,000.

An interagency agreement with the United Nations Environment Programme (UNEP) was made for an international consultant to assist the national experts in the preparation of the Transboundary Diagnostic Analysis (TDA) and SAP elements.

36. A brief history of the priority activities and meetings concerning the Dnieper River Basin program between 4/96 and 6/97 is summarized in Annex 7.

37. As part of the project development process, the countries have integrated a wealth of information from three separate national reports into a regional overview which addresses the major environmental issues facing the three new republics. During the PDF phase, a UNEP consultant (through an Inter-Agency Agreement) coordinated the preparation of a Transboundary Diagnostic Analysis (TDA) for the Dnieper River Basin comprised of two reports, the Tri-national Integrated Report, and the Synthesis Report (Annex 9), the latter of which presents an executive summary, rationale for the project and easy reference to the Tri-national Integrated Report.

38. The Synthesis Report of the TDA makes several valuable contributions by addressing the past and present state of the Dnieper Basin ecosystem - its quality, health and the stresses impacting it, including preliminary identification of potential root causes. It also outlines prospective remedial actions needed to mitigate the environmental damages and the need for a Strategic Action Programme (SAP) as the next phase in the GEF project cycle. Focus is placed on the major GEF objectives, namely:

transboundary environmental impacts across three international borders;  
the impact on a major international water body, the Black Sea;  
implications to the ecosystem and to human health;  
the protection of biological diversity and wildlife; and  
institutional capacity building.

39. The Transboundary Diagnostic Analysis (TDA) will serve as the basis for the development of the SAP in the full project. The draft TDA identifies twenty-five major environmental issues to be addressed in the SAP, of which thirteen are transboundary in their scope of remediation, and twelve are national in their scope of remediation. The issues of transboundary nature include: water shortages, unsustainable industrial development, excessive or wasteful water consumption, large-scale irrigation development, expansion of abandoned land, soil erosion, radioactive contamination, uncontrolled cultivation and reduction of naturally vegetated areas, excessive accumulation of pesticides, uncontrolled deforestation, continuing negative impacts of Chernobyl on human health, and inadequate areas to protect biodiversity in the basin. These will be further prioritized and refined during the final revision of the TDA down to 5-6 key transboundary issues to be addressed in the SAP.

40. The recommended steps to remedial action emphasize the need for a coordinated effort by all three countries (with assistance from the international community), and points out a number of weaknesses in the present water quality protection system. The TDA further recommends improvements and restructuring of the system in two major target areas, namely: a) capacity building, and b) establishment of a new transboundary institutional framework.

41. The sectoral requirements for Institutional Capacity Building are based on the need for:

- a) the assessment of the quality of water resources,
- b) the development of new transboundary ambient water quality standards,
- c) improvements in the conservation and protection of biodiversity in the basin,
- d) redefining the allowable limits for anthropogenic pollutant loading, and

e) a review of all laboratory and monitoring capabilities within the basin.

42. The need for a new Transboundary Institutional Framework focuses on the establishment of an effective management and coordination regime with effective intergovernmental agreements, regulations, information exchange, an emergency warning system, as well as broad stakeholder participation. It also advocates for the establishment of an International Joint Commission for the Rehabilitation of Critical Areas (including Dnieper hotspots); and it promotes the creation of new environmental policies using "ecosystem, sustainable development, and interdisciplinary approaches."

43. The preparation of this two part Transboundary Diagnostic Analysis will greatly assist the next phase of GEF project development and implementation, insofar as it has advanced the SAP formulation process by identifying some primary issues, objectives and recommendations needed to achieve these objectives. Still there remain a number of gaps in the TDA and a need to harmonize the main outputs of the TDA with the measures suggested in the preliminary SAP work. Activities have been proposed to meet the objectives expressed by the countries in written form during the preparatory phase, which are elaborated in this document. There is also a need to prioritize the preliminary recommendations for the preparation of the SAP with elaboration of specific activities.

44. There is strong recommendation from the UNDP Resident Representative and UN Resident Coordinator in Ukraine to strengthen regional cooperation and interagency cooperation in thematic areas, and to bring these into the overall context of environmental and sustainable development. Interagency cooperation should be encouraged wherever and whenever possible. These agencies include WHO, UNICEF, UNESCO and the International Liaison Office, who work together on projects for environmental disaster mitigation, as well as joint projects on health, education and the environment. Inter-agency meetings are held once a month, and a new mechanism has been established between liaison officers to enhance cooperation. Such interagency cooperation will raise general awareness of the activities of the other agencies as well as promote official inter-governmental ties. As they all share advisory notes, this increased inter-agency cooperation may also have a positive political influence, and may draw greater regional governmental support for the programs and policies.

45. Additionally, there are several dozen non-governmental organizations (NGOs) and private-public organizations (PPOs) in the basin that are active in monitoring and research, policy, habitat conservation, institutional strengthening, and public awareness programs dealing with critical environmental problems in the Dnieper River ecosystems. Their enhanced participation in the project formulation, implementation and evaluation through clear guidelines to promote their involvement will also bring benefits

46. Two international NGOs (Greenpeace-Ukraine, International Academy of Ecology and Life Protection Science<sup>2</sup>) were given the opportunity to participate in and comment on the SAP 'elements' development process for the Dnieper project, and they have provided valuable input into the identification of key priority issues in the Programme. Despite limited review time, Greenpeace also provided written commentary on SAP priority formulation including an emphasis on "source reduction rather than end of the pipe treatment" for industrial pollutant sources. They also provided a listing of Ukrainian NGOs working on Dnieper River environmental issues.

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<sup>2</sup>International Academy of Ecology and Life Protection Sciences- Moscow Branch

47. A major priority of the Dnieper project is to integrate approaches and lessons learned from similar programs in the region including the Black Sea Environmental Programme (BSEP), and the Danube Program (now the Danube River Basin Pollution Reduction Programme). The emerging GEF International Waters-LEARN project will help enable this process by providing distance learning and networking tools to the full suite of GEF International Waters projects. There is an agreed priority to coordinate a Basin wide initiative for all significant watershed projects in the Black Sea Basin and this approach has been integrated into this project as well as the current Danube and Black Sea GEF projects. The inception workshop for this Basin Wide Initiative is scheduled for 1998 and will include participation from the GEF Dnieper Basin project if it is operational by that time.

48. A valuable partner in the GEF Dnieper initiative may be the Canadian government's International Development Research Centre (IDRC). IDRC supported the establishment of the original Dnieper department in the Ministry of Environmental Protection and Nuclear Safety of Ukraine (MEPNS), the establishment of the Dnieper Renaissance Fund (DRF) in 1994 to catalyze market-based solutions to the region's environmental problems, and developed the concept of a "Cooperation House" in the IDRC-Kiev office to provide logistical and office services to Canadian and Ukrainian agencies active in Ukraine.

49. IDRC and the Canadian Bureau of Assistance for Central and Eastern Europe have cooperated in developing the Environmental Management Development in Ukraine (EMDU) project, a 3 year, Can\$5 million initiative. The goal of the project is to contribute to the environmental rehabilitation of the Dnieper River system through the collaborative efforts of Ukrainian and Canadian institutions and organizations. The general project objectives include:

- to strengthen the capacity of Ukrainian institutions to manage the Dnipro River system, particularly its water quality;
- to identify means of reducing water pollution in the Dnipro River, specifically in the Zaporizhzhia region;
- to foster long-term collaborative links between Canadian and Ukrainian public and private sector environmental organizations;
- to encourage the exchange of information and experience between Ukrainian scientists and policy-makers and between these two groups and their counterparts elsewhere.

50. Specific potential GEF/IDRC project linkages in the EMDU Human Resources Development, Environmental Management Information Systems, Policy and Public Education, Water Quality, Water Pollution Control and other components are described in the associated GEF project objectives and activities.

### III. Project Activities/Components and Expected Results

Output 1. A transboundary management regime and coordinating body for the Dnieper River Basin

51. The first step towards creating a transboundary management regime is to establish a coordinating body that will oversee the SAP, NAP and UIP processes, disseminate information, and carry out and commission the institutional strengthening activities summarized above. A

Dnieper River Basin Programme Coordination Unit (Dnieper-PCU) will be established with the consensus of the Dnieper countries. Staff will include a full time Chief Technical Advisor (CTA), River Basin Management Specialist, and selected intermediate and administrative positions. To work closely with UNDP-Ukraine as lead implementing and coordinating agency of the Dnieper Basin Programme, and the Canadian IDRC as a prospective partner in the program, the Dnieper-PCU will likely be located in Kiev, Ukraine. The PCU will assist countries in the SAP formulation, review and endorsement process; and coordinate the specific work of the Project Management Task Force, Expert Working Groups and Activity Centres. Activities to identify or promote financial mechanisms, such as donor conferences during the middle to end of the full Project implementation, will also be organized by the PCU and hosted by the World Bank and/or EBRD. The PCU, through the Task Force, will also be responsible for subcontracting or developing the capacity to carry out a number of project activities:

Activity i. Creation and operation of the Dnieper Basin - Programme Coordination Unit (Dnieper - PCU) to facilitate, coordinate, and communicate on the implementation of priority activities identified in the following components.

Activity ii. Establish international (both basin countries and external) expert working groups on water quality, reservoir safety, biodiversity, rehabilitation of ecosystems, etc. to complement activities of Coordinating Council and other areas identified by Task Force.

Activity iii. Establish national activity centers (1 or more per country) with principal expertise(s) in selected priority areas (e.g. monitoring, biodiversity, radioactive contaminants, etc.). These activity centres will serve as the focal points for regional training, capacity building and information exchange and SAP formulation in the selected areas of expertise.

Activity iv. Create Project Management Task Force including representatives from each country's environment and other relevant ministries, other Implementing Agencies, NGO's, the private sector and the project CTA. Coordinate annual meeting of Project Management Task Force.

Output 2. A Strategic Action Programme for the Dnieper River Basin, endorsed at Ministerial level:

52. The preliminary elements of an SAP for the Dnieper River Basin were identified as part of the review and consultative processes occurring during development of the draft TDA. This preparatory work will be utilized in the full-fledged SAP formulation process, including priority setting, identification of 'root causes', 'hot spot' identification, stakeholder involvement, SAP review, high level country endorsement, publication and broad dissemination.

Activity i. Evaluate existing monitoring capacities in basin and identify critical gaps;

Activity ii. Revise, update, finalize and publish TDA

Activity iii. Hold experts meetings and regional workshops with all stakeholders involved (including NGO's and private business) for priority formulation and the identification of 'root causes' of environmental problems and articulation of actions to address them in SAP.

Activity iv. Identify pollution 'hot spots' for subsequent rehabilitation/investments following SAP development phase.

Activity v. Draft, review, refine and finalize SAP, including identification of baseline and incremental costs.

Activity vi. Hold Ministerial Conference for SAP endorsement at highest government

level(s).

Activity vii. Publish (print & on-line) and broadly disseminate and publicize SAP

Output 3. Improved financial, legal and operational mechanisms for pollution reduction and sustainable resource use

53. Activities within Objective 3 will identify and assess appropriate legal and financial/economic mechanisms for addressing transboundary environmental concerns as well as identify barriers to their implementation and propose actions to overcome these barriers. The preparation of a Priority Investment Portfolio (PIP) at the latter stages of the SAP development process will be supported with subsequent identification and response to acute environmental problems (such as the transboundary movement of radioactive contaminants) in high priority areas and in particular those that contribute to the state of global commons (such as the Black Sea ecosystems). Donor conferences in the latter half of the SAP development process will also facilitate investment in priority activities identified in the PIP.

Output 3.1 Improved financial mechanisms for pollution reduction and natural resource use:

Activity i. Preparation of a Priority Investment Portfolio (PIP) following hot spot identification and SAP formulation.

Activity ii. Conduct feasibility studies/pilot project(s) for use of economic instruments in municipal and industrial pollution control and reduction, and to determine more appropriate water pricing; explore linkages with IDRC-EMDU Environmental Audits and Green Technologies programs.

Activity iii. Conduct evaluations and pilot project(s) to enable reform of fertilizer and pesticide pricing schemes, and/or the elimination of subsidies.

Activity iv. Feasibility studies/pilot project(s) on using economic mechanisms for natural resource use and management in each country with harmonization of penalties for pollution among countries.

Activity v. Hold donor conferences at middle and end of Dnieper full project to identify donors for SAP baseline and PIP-identified priority activities.

Output 3.2 Improve legal and operational mechanisms for pollution reduction & sustainable use of natural resources:

Activity vi. Collect and evaluate existing laws, regulations, licensing and enforcement systems regarding pollutant discharge, compliance, and polluter responsibility.

Activity vii. Assess and review Environmental Impact Assessment policies and practices in region

Activity viii. Work towards implementation of coordination/cooperation principles stipulated by the UN/ECE Helsinki Convention on Transboundary Water Bodies; participate in Convention Technical and CoP meetings.

Activity ix. Review and assess management guidelines and practices for Dnieper reservoir operation.

Activity x. Review and assess management guidelines and practices for nuclear facilities and disposal sites.

Activity xi. Assess operational capacities and practices of selected drinking and wastewater

plans

Output 4. National Action Plans (NAP's) formulated by Interministerial Committees

*54. Activities envisaged under National Action Plans (NAPs) include assistance to the three recipient countries in the development and implementation of individual NAPs. Development of NAPs should be executed in accord with related components of the regional SAP and should be executed in close partnership with country authorities, international organisations, international institutions, and experts from the region. National Action Plans should highlight priority interventions---policy reforms, programs, technical assistance, demonstrations and investments---that countries would be willing to commit to over a 5-10 year period.*

- Activity i. Formation of NAP interministerial committees
- Activity ii. Assistance to countries in the development of NAP's
- Activity iii. Public participation in NAP development and endorsement process

Output 5. Framework for enhanced capacity for conservation and protection of biodiversity in the Dnieper Basin

55. Activities within this objective to protect biodiversity would review the legal structure in the different Basin countries for the protection and management of endangered species, critical ecosystems, and nature reserves located within the Basin, as well as the actual status of protection of these resources. Information would be collated to identify weaknesses regarding the management of existing or planned protected areas in the Dnieper Basin including size, key natural resources, management authority, staffing and budget toward the management of biodiversity.

- Activity i. Conduct a complete assessment of existing protected areas, priority ecosystems and biodiversity hotspots, including economic valuation studies.
- Activity ii. Review legal and regulatory framework for Dnieper basin biodiversity protection.
- Activity iii. Review and assess agricultural practices in context of pollution reduction and soil conservation.
- Activity iv. Review status of fisheries and aquaculture in the region; identify gaps and problem areas.

Output 6. Enhanced communication between stakeholders and increased public awareness and involvement

56. The Dnieper SAP project anticipates broad-based participation by the general public, private sector associations, academic and research institutions, non-governmental organizations and local community groups. The large number of stakeholders involved and affected by pollution control issues in the Dnieper river requires multi-level awareness programmes targeting different groups of stakeholders and other decision-makers, from national to village and household levels. Local community groups are especially efficient in triggering social and environmental change at the community and household levels. Effective participation of the general public and other stakeholders in pollution prevention programs and resource planning issues requires strengthened environmental awareness and improved channels for interaction among



stakeholders and the governments, with adequate financial resources mobilized for activities to address the above Objectives.

57. Broad participation of these various stakeholders within and across countries can improve the quality, effectiveness, and sustainability of projects. This proposal therefore also focuses on the broad involvement and increased networking among public organizations as well as between and among governmental organizations. The Programme will identify key stakeholders, particularly effective NGOs, bring them together to strategize and discuss common issues (in a regional NGO forum) and link them together for the enhanced exchange of information and strategies. Linkages through computer based networks is one promising way to increase communication among governmental, public, and private organizations which "can foster broad involvement in planning and implementing GEF international waters projects and should help to improve the quality, public awareness, and scientific basis of international waters projects" (GEF Operational Strategy, p. 49). Other activities resulting in improved communication and support include the establishment of a public awareness program, NGO activity centers, a small grants program, and expansion of consultative and participatory actions related to the program.

Activity i. Facilitate socio-economic assessment of Basin's population and the identification of key stakeholders.

Activity ii. Improve access and distribution of project and Dnieper basin information through electronic postings on the World Wide Web and Internet list-servers; explore linkages with IDRC-EMDU Environmental Management Information System (EMIS);

Activity iii. Hold regular consultations and technical/policy workshops (1/yr) with broad involvement from international agencies, national governments, research institutions, the private sector, and all interested public organizations and NGOs.

Activity iv. Expand Internet access for key stakeholders through establishment of additional e-mail connections and Web-Services with priority for those without existing service.

Activity v. Collect, publish and disseminate bi-annually project and general Dnieper basin news and information gathered by the project, consultants, scientists and NGOs; also post such information on the Internet.

Activity vi. Create public awareness and environmental education campaign through participatory regional events publicized by popular media, NGO newsletters, Internet postings, and school-based environmental curricula development; explore linkages with IDRC-EMDU Policy and Public Education component.

Activity vii. Sponsor and organize bi-annual NGO forum for NGO's to network, identify priorities and responsibilities, and share data and information.

Activity viii. Create and administer a small grants program for NGOs and community organizations to fund small scale activities related to the rehabilitation and improved management of Dnieper river basin resources.

Output 7. Enhanced regional and national capacity for SAP implementation.

Activity i. Provision of equipment to fill gaps in monitoring capacities identified in Activity 2 i.

Activity ii. Create regional Dnieper River basin environmental database with on-line user capacities.

Activity iii. Provide training in river basin monitoring to fill gaps identified in 2 i.

#### IV. Risks and Sustainability

##### 1. ISSUES, ACTIONS AND RISKS

58. The long-term success of regional waterbody management programmes such as the one proposed here depend, *inter alia*, on the political willingness of the Contracting Parties to cooperate. The latter in turn depends on changing economic, political and social conditions at the individual country level. For this project, the geopolitical factor appears to introduce only a moderate risk at this time; indeed, the presently strong interest in cooperation and coordination among the three countries in a regional programme for the Dnieper River basin bodes well for the future success of the project. However, risks due to policy changes resulting from the turnover of key government officials should not be ignored. Impacts from economic changes and failures are much less easy to predict, as each country is in the difficult process of shifting towards a market economy and the state of individual economies varies fairly widely among the countries. In this regard, countries which are under economic duress during the transition period may focus their investment priorities away from environmental concerns to the potential detriment of achieving selected project objectives. On the other hand, the expected growth in financial and economic linkages between the three countries due to both historical and geographic factors may help to diminish impacts from any short-term economic lapses experienced by individual countries during the project period.

##### 2. SUSTAINABILITY

###### Government Commitment

59. This proposal has the long term commitment of the three Dnieper River riparian country governments and for coordinated priority with other GEF projects in the region. The governments of the three countries of the Dnieper have already demonstrated strong commitment to strengthening international cooperation in the regional basin management and this commitment has been confirmed among other things by their readiness to cooperate on collaborative efforts such as the TDA. At an International Conference on the "Problems of the Dnieper River Basin Environmental Rehabilitation " held in Kiev, 24-25 January, 1995, the three governments signed a Memorandum requesting UNDP to assist in the development of a GEF Environmental Management Program for the Dnieper River Basin. The Government of Ukraine has already developed a National Dnieper River Basin Program, and the governments of Russia and Belarus have additionally prepared draft national strategies to further the development of the Strategic Action Plan formulation process. The completed Dnieper River Transboundary Diagnostic Analysis further illustrates the governments commitment to the development of enhanced transboundary environmental cooperation under the GEF International Waters Operational Strategy.

60. This project brief has incorporated the comments and suggestions from the governments, scientific institutions, NGO's, and other donors and UN agencies, gathered in several regional consultative meetings, and has received the official endorsement of all participating countries (Annex 8). Government commitment is further demonstrated by their financial and in-kind contributions as listed in the finance section of the cover page.

## Financial Sustainability

61. The project is designed to identify and stimulate investments in the region through feasibility studies and the Priority Investment Portfolio. The project will also evaluate the use of economic instruments as a mechanism to generate revenue to sustain, *inter alia*, the regional coordination mechanisms developed during the project. The project will also focus on building sustainable institutional capacities for environmental monitoring, EIA, compliance, emergency response, environmental management, use of information and models in decision-making, and public awareness.

## V. Stakeholder Participation and Implementation Arrangements

### 1. STAKEHOLDER COMMITMENT AND PARTICIPATION

62. Environmental issues are a high societal priority in the region. Over twenty public organizations as well as individual scientific and research institutions have invested their resources in remedying pollution and water management problems in the Dnieper basin. NGOs nominated or listed as organizations involved in key environmental activities related to Dnieper River quality have been identified during the project preparation process. The project will involve these various stakeholders in project monitoring, evaluation and implementation through numerous consultations and workshops as well as modalities such as the Small Grants Programme and improved Internet access among stakeholders.

### 2. PROJECT IMPLEMENTATION AND INSTITUTIONAL FRAMEWORK

#### Regional Institutions

63. The Interim GEF Implementing Task Force was composed during the PDF phase of representatives from UNEP, World Bank, UNDP-Ukraine Country Office and UNDP-Regional Bureau for Eastern Europe/CIS, as well as the CTA from the Danube River Basin Programme and the CTA from the Black Sea Environmental Programme.

64. An Ad-hoc Advisory Group consisting of high-level policy and decision makers from the three Dnieper basin countries, and ministry representatives involved in the management of river basin resources (environment, health, water, agriculture) was involved, with the national expert groups and international consultants, in the review, finalization and endorsement of the prepared GEF project.

65. A Project Management Task Force composed of representatives from the Ministry of Environment and possibly other sectors, the three involved GEF Implementing Agencies, and the Project CTA, will have overall management and supervisory responsibility for the full GEF project and will meet annually to review work plan progress and make recommendations. Once the project is underway, the Task Force may elect to invite representation from NGO's and the private sector. The Task Force will work with the newly created Program Coordination Unit who are jointly responsible for the project outputs and project workplan. Coordination of activities between the GEF Programme for the Danube River basin and the Black Sea Environmental Programme will be ensured by cross-attendance of Steering Committee/Task

Force meetings of the other programmes, and the anticipated creation of the Black Sea Basin Wide Initiative in 1998.

66. The Program Coordination Unit, once formed, will oversee day to day implementation of project activities and play a key role in ensuring coordination of the proposed Programme with other relevant activities in the region.

#### National Institutions

67. The governments of Russia, Belarus and Ukraine have nominated National Expert Groups for the design and implementation of both the Transboundary Diagnostic Analysis and the Strategic Action Plan. These experts assist and advise the program on background information, transboundary environmental problem analysis, and needed institutional changes for the successful management of Dnieper Basin resources. The representative institutions from these groups are provided in Annex 5.

68. Three or more regional Activity Centres will be established in several thematic areas (e.g. monitoring, pollution prevention, data/information systems, etc.) based on existing capacities in the three nations. The Activity Centres will serve as the focal points for regional capacity building in the respective thematic areas and make substantial contributions to the SAP in their respective areas of expertise. The location and thematic focus of each Activity Centre will be determined based on consultations between the governments and the PCU.

#### Project Implementation:

69. The UN Office for Project Services (UNOPS) served as Executing Agency during the PDF-B phase and will continue to serve as interim Executing Agency for the UNDP Project Document preparation phase. During this period, final executing and project management arrangements will be determined by UNDP-GEF and the concerned riparian countries prior to Council review and CEO endorsement of the final project document.

70. The World Bank and EBRD will be invited to participate in the Task Force meetings in order to be engaged in the development of a Priority Investment Portfolio (PIP) and hosting the donor conferences.

71. Ongoing discussions with Canadian IDRC Environmental Management and Development in Ukraine (EMDU) project will continue to explore coordination, cost-sharing and other cooperative activities.

#### VI. Incremental Costs and Project Financing

72. See Annex 1 for Incremental Cost Analysis and Matrix.

#### VII. Monitoring, Evaluation and Dissemination

#### MONITORING AND EVALUATION

73. Project objectives, outputs and emerging issues will be regularly reviewed and evaluated at annual meetings of the Project Management Task Force. The project will be subject to the various evaluation and review mechanisms of UNDP, including PPER (Project Performance and Evaluation Review), TPR (Tri-partite Review) and an external Evaluation and Final Report prior to the termination of the project. The project will also participate in annual PIR (Project Implementation Review) exercise of the GEF.

#### LESSONS LEARNED AND TECHNICAL REVIEWS

74. The development of this project has benefited substantially from a detailed review of 'lessons learned' in the Danube and Black Sea GEF projects. This includes approaches to NGO involvement, public awareness activities, the TDA and SAP processes, et al. In addition, the Dnieper River project will be involved from the start in the new GEF International Waters LEARN (Learning Exchange and Resource Network) program. IW:LEARN is a distance education program whose purpose is to improve global management of transboundary water systems. IW:LEARN will provide structured interactive conferencing capacity across the portfolio of GEF International Waters projects which will allow participants to share learning related to oceans, river basins, and coastal zone management. For environmental professionals working on GEF-financed projects, IW:LEARN will greatly expand opportunities for peer-to-peer consultation, collaborative research with physically distant colleagues, opportunities to exchange best practices and training modules among projects, and the delivery of short courses. Due to the numerous waterbody-management issue parallels between the Dnieper and other GEF IW projects, the Dnieper basin project could benefit substantially from the sharing of lessons learned through the IW-LEARN mechanism.

## Annexes

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Annex 1:	Incremental Cost Analysis and Matrix
Annex 2:	Log Frame Matrix
Annex 3:	STAP Roster Technical review(s)
Annex 4:	Incorporation of STAP Reviewer Comments into GEF Project Brief
Annex 5:	TDA and SAP National Expert Groups
Annex 6:	Recommendations from Project Preparation Phase
Annex 7:	Dnieper River Basin: Project Preparation History
Annex 8:	Copies of GEF Operational Focal Point Endorsement letters
Annex 9:	Transboundary Diagnostic Analysis for the Dnieper River Basin: Trinational Integrated Report and Synthesis Report (available upon request)

### Annex (4-9) summaries:

Annex 4: Summarizes how STAP review of project brief (winter '98 intersessional submission) were incorporated into brief.

Annex 5: List of national institutions participating in preliminary TDA and SAP processes during PDF-B.

Annex 6: Summary of major recommendations for regional action in the Dnieper River basin emerging from PDF-B consultations.

Annex 7: Summary of dates and key events during project preparation (PDF-B) phase.

Annex 8: Copies of GEF Operational Focal Point endorsements from Russia, Belarus and Ukraine.

Annex 9: The Transboundary Diagnostic Analysis for the Dnieper River Basin (TDA) is a joint product of four national institutions in the three participating countries of the Basin---Belarus, the Russian Federation, and Ukraine---under the guidance of the Project Coordinating Council, the Project Task Force (consisting of three Chief National Experts and six national experts from the three countries), and an international expert assigned by UNEP.

The TDA is based on a wealth of data collected from a number of research and operational organizations of the three countries and covering a period of several decades. The TDA reviews and summarizes past and current studies on the environmental problems of the Basin; presents the state of its environment in a transboundary context; identifies possible root causes of the key transboundary issues; and proposes a number of directions for corrective measures and strategies for remediation/rehabilitation as an initial step in the preparation of a Strategic Action Programme for the Basin.

The TDA is broken into two reports: the *Trinational Integrated Report*, incorporating and fusing

data from three separate national reports into a regional overview addressing the major environmental issues facing the three new republics; and a *Synthesis Report*, presenting an Executive Summary, rationale for the project and highlights of the integrated report for easy reference, with special references to transboundary impacts, other GEF focal areas, the root causes of environmental issues, and a preliminary outline of the SAP.

## Incremental Cost Analysis

### Regional Context and Broad Development Goals

**Due to a combination of sectoral, institutional, political and socioeconomic factors, the overall environmental integrity and sustainable development of the Dnieper River basin has been lacking for some time. In recent years, the riparian countries---Russia, Ukraine and Belarus---have made commitments to the long-term rehabilitation and sustainable management of this highly degraded aquatic ecosystem. Due to the prevailing economic situation in the region, these countries at present have very limited human and financial resources to devote to this issue and understandably are targetting the majority of their funds towards principally national goals. As a result, international assistance from a body such as the GEF is needed to assist these countries to work collaboratively in understanding and addressing the key *transboundary* issues of the Dnieper River basin, particularly in the context of the emerging GEF basin-wide approach to the rehabilitation of the similarly degraded downstream Black Sea.**

### **Baseline**

The countries are engaged in a number of nationally, donor and Implementing Agency (UNDP) financed activities which are directly or indirectly related to the Dnieper River basin; some of these activities represent 'baselines' in the context of the current project (see Incremental Cost matrix).

#### *National Activities:*

##### Ukraine:

The Parliament of Ukraine adopted the National Programme of Ecological Rehabilitation of the Dnieper River Basin and Improvement of the Drinking Water on 27 February 1997.

For the implementation of the Programme the amount of 4.2 billion UAH (approx. 2.4 billion USD) is anticipated for the period 1997 - 2010.

In 1998 the amount of 391.9 mln. UAH (approx. 218 mln. USD) is foreseen to be expended in the state budget for the following priority activities:

- construction and reconstruction of buildings and water supplies systems, creation of sewage systems in towns and large villages - 337 mln. UAH (approx. 187 mln. USD)
- implementation of water protection measures on industrial enterprises under the ministries and other central bodies of executive power - 27 mln. UAH (approx. 15 mln. USD)
- realization of water protection measures on rivers and water bodies - 12.8 mln. UAH (approx. 7.1 mln. USD)
- execution of water and land protection measures in the Dnieper basin - 7.6 mln. UAH (approx. 4.2 mln. USD)
- protection and development of nature reserves within the basin - 0.4 mln. UAH (approx. 0.2 mln. USD)
- other measures on nature protection (among which State ecological monitoring, scientific-technical support, etc.) - 7.1 mln. UAH (approx. 3.9 mln. USD)

Financing of the above activities will be undertaken from the state and local budgets, and other sources.



In 1999 the estimated amount for the Ukrainian national activities is 524.75 mln. UAH (approx. 291.5 mln. USD), including:

water and land protection measures on the territories of the Dnieper basin, protection and development of nature reserves, state ecological monitoring etc - 122.23 mln. UAH (approx. 68 mln. USD)

scientific research and technical support and other measures - 6.5 mln. UAH (approx. 3.6 mln. USD) (expected to be financed from the 1999 state budget)

#### Belarus:

The following activities and expenditures are planned in 1998:

Creation of regional laboratories in Gomel town - 160 thousand USD and in Mozyr town - 115 thousand USD

Creation of the basin database in Minsk for the support of the realization of Dnieper project - 90 thousand USD

Construction of sewage treatment systems with the use of highly effective technologies for refining of industrial flows in the following towns (in thousand USD):

- Rechitsy - 215

- Gomel - 346

- Pinsk - 187

- Orsha - 208

- Zhlobin - 113

- Osipovichi - 120

- Borisov - 175

Water supplies and installation of additional purification of drinking water in Gomel town - 390 thousand USD

Scientific, regulatory, methodological and software support to the international project - 96 thousand USD

*TOTAL for the above: 2.204 mln. USD*

Overall, in 1998 Belarus plans to spend a total of about 12.3 mln. USD for environmental protection activities in the Dnieper river basin

#### Russia:

For the period 1997 - 2000 the outlay for the implementation of programmes for Bryansk and Smolensk regions (the two largest regions upstream in the Dnieper basin) is 704.5 mln. USD, which includes the expenses for the construction and evacuation of people from the radio-contaminated territories. In addition, about 95 - 100 mln. USD is planned to be allocated from regional budgets, ecological funds and enterprises over a period of 4 years.

#### Other Donors:

In late 1994, the EBRD Board of Directors approved an action strategy for Ukraine which aims

to meet the most urgent needs in the agriculture, banking, privatization, energy, environmental protection, privatization, and transportation sectors. In the environmental field, the EBRD is concentrating its efforts in the following directions: a) investment targeting to the environmental protection of key industrial sectors; b) promotion and support of the efforts of the Ministry for Environmental Protection (MEP); c) providing assistance to regional centers of environmental protection and water resources; d) providing assistance to the private sector and various joint ventures operating in the sphere of municipal wastewater treatment. Municipal water and wastewater projects in the cities of Dnipropetrovsk, Lviv, Odesa and Zaporizhzhya have been financed by EBRD and the World Bank.

In 1994-96, the U.S. Agency for International Development in 1994 provided grants totalling \$900,000 to the City University of New York's Center for Water Resources and Environmental Research (CWRER) to explore alternatives to the water supply problems of the Ukraine. A second project of the Center, working with the Center for Radioecological Field Studies at the Ukraine Academy of Sciences and funded by the National Science Foundation, has focused on the movement through erosion of agrochemicals and radioactive pollutants within agricultural watersheds including the Dnieper basin.

#### IA Country Assistance: Ukraine

Through the GEF several environmental projects have been implemented in Ukraine. Three of these projects have been executed by UNDP through UNOPS: Environmental Management in the Danube River Basin, the Black Sea Environmental Programme and the Dnipro River Basin Management Programme PDF-B. In addition, a project on Improving Environmental Monitoring Capacity in Ukraine was launched by several partners: MEPNS, USAID, US Environmental Protection Agency and the UN Office of Project Services (UNOPS)

Other related activities initiated and supported by the UNDP Office in Kiev include: Introduction of Sustainable Development Principles into Ukrainian Governmental Institutions, Training Component (\$70,000), the Ecological Network (support to the development of the concept of establishment of ecological corridors in Ukraine) (\$105,000); Improving Environmental Monitoring Capacity (\$60,000 plus \$1,044,200 from US-EPA), and, with WMO, a Donors' Meeting on Meteorological and Hydrological Services in Support of Sustainable Development in Newly Independent States (Europe and Central Asia) held in April 1995 in Geneva.

#### IA Country Assistance: Belarus

Related projects currently being coordinated by the UNDP office in Minsk include: Raising Public Environmental Awareness in Belarus (\$115,000), and Sustainable Development of Chernobyl-Affected Areas in Belarus (Local Agenda 21) (\$630,000).

#### IA Country Assistance: Russia

The UNDP office in Russia has only opened just recently so development of projects complementary to the Dnieper River Basin programme will be ongoing.

#### Global Environmental Objective

**The long-term objectives of the project are to remedy the serious environmental effects of transboundary pollution and habitat degradation in the Dnieper River Basin, to ensure sustainable use of its resources, and to protect biodiversity in the basin. The project will enable the implementation of a series of complementary investigative, preventative and curative actions that will be elaborated in a Strategic Action Programme for the Basin region. The SAP will outline and financially characterize both national (baseline) and**

**additional (incremental, e.g. addressing transboundary issues) actions for subsequent funding by the countries and the international community. In addition, the project will participate in the overall strategic ‘basin-wide’ approach currently under development towards the coordinated protection and rehabilitation of the Black Sea from transboundary sources of degradation.**

#### GEF Alternative

The GEF alternative would support a proposed project to remedy the serious environmental effects of pollution and habitat degradation in the Dnieper River Basin through implementation of a series of complementary investigative, preventative and curative actions that will be elaborated in a Strategic Action Programme for the Basin region. This would principally be accomplished through GEF support to facilitate key measures for development of the SAP. GEF would provide support for the incremental costs of activities to build institutional, human and technical capacity for the subsequent implementation of the SAP, including additional transaction costs for joint planning activities, development of common approaches to sectoral and inter-sectoral policymaking, data collection and analyses, and co-ordination of efforts among the participating countries.

The proposed project, consistent with GEF guidance, would contribute significantly to the “reduction of stress to the international waters environment” in this region and support the co-operating countries in “making changes in their sectoral policies, making critical investments, [and] developing necessary programmes” to achieve these objectives. The long-term commitment on the part of the concerned governments is demonstrated by: the principles of coordination and cooperation stipulated by the agreement signed by the governments in 1992, the 1995 memorandum which requested UNDP assistance in the development of a GEF Environmental Management Program for the Dnieper River Basin, government participation in the PDF-B Task Force, and the countries’ role in the National Reports and draft Transboundary Diagnostic Analysis and SAP ‘Elements’ which co-operatively identified key issues, likely ‘root causes’ and priority actions. The support of GEF at this stage will play an important catalytic role in the long-term Dnieper rehabilitation effort now underway in the region, and the anticipated participation of international financial institutions, other donors and the private sector will also contribute to this multi-country and multi-stakeholder effort.

The GEF alternative would support a regionally led initiative to promote the sustainable management and conservation of Dnieper River and its basin. It would also provide additional global benefits by making a significant contribution towards the emerging ‘basin-wide’ approach to the long-term rehabilitation of the highly degraded Black Sea ecosystem. It would greatly facilitate the ability of the co-operating countries to address the priority transboundary environmental issues and common natural resources management concerns at the regional level. The GEF alternative would allow for the relatively rapid development of a series of interventions for the implementation of the SAP, to be undertaken with support from a variety of sources.

These goals would be realised through support for the following specific project objectives:

1. Create a transboundary management regime and coordinating body;
2. Assist countries in SAP formulation, review and endorsement process;
3. Improve financial/legal mechanisms for pollution reduction and sustainable resource use;
4. Formulation of National Action Plans by Interministerial Committees;
5. Improve framework for conservation of biodiversity in the Dnieper River Basin;
6. Enhance communication among stakeholders and encourage public awareness and involvement in addressing the problems of the Dnieper Basin;

## Build capacity for SAP implementation

### System Boundary

The time boundaries for this project are the three year project period during which it will be implemented. Some of the project benefits will clearly continue to accrue beyond this time boundary. However, all the listed outputs/benefits will be achieved during the three year implementation period.

The geographic boundary of the project is defined by the drainage basin of the Dnieper River Basin within the three participating countries, Russia, Ukraine and Belarus.

The issues to be dealt with within the boundary of the project are:

- Coordinated evaluation and management of transboundary priorities
- Facilitation of the SAP formulation, review and endorsement process
- Financial and legal mechanisms for improved pollution control strategies
- Formulation of national strategies for Dnieper River rehabilitation
- Conservation of Dnieper River basin biodiversity
- Communication among stakeholders; public awareness and participation
- Build SAP implementation capacity

The design of the proposed project has taken into full consideration its complementarity with other existing projects in the region, particularly the “Black Sea Basin-wide” approach currently under formulation in the GEF.

### Incidental Domestic Benefits

Over the long-term, a variety of domestic benefits would occur through implementation of the proposed project. The most valuable domestic benefits to be gained from the project are associated with substantially strengthened institutional and human capacity in integrated land and water management, increased technical knowledge and public awareness of Dnieper environmental issues, and improved national capacities in environmental legislation and enforcement. Each national Activity Centre would receive domestic benefits in the form of improved national capacities in the Activity Centre area of expertise. In addition, eventual implementation of the National Action Plans would, by definition, deliver both national and global/regional benefits.

### Costs

The incremental costs required to achieve all outputs of the project amount to **US\$7,000,000** to be allocated as follows:

Project Component/Output

US\$

A transboundary management regime and coordinating body for the Dnieper River Basin	\$1,690,000
A Strategic Action Programme for the Dnieper River Basin, endorsed at Ministerial level	\$610,000
Improved financial and legal mechanisms for pollution reduction and sustainable resource use	\$1,960,000
National Action Plans (NAP's) formulated by Interministerial Committees	\$525,000
Framework for enhanced capacity for conservation and protection of biodiversity in the Dnieper Basin	\$275,000
6. Enhanced communication between stakeholders and increased public awareness and involvement	\$721,481
7. Capacity built for SAP implementation	\$700,000
Project Support costs	\$518, 519
<b>TOTAL</b>	<b>\$7,000,000</b>

**Annex 1: Incremental Cost Matrix—Preparation of a Strategic Action Programme (SAP) for the Dnieper River basin and Development of SAP Implementation Mechanisms.**

<b>Costs/ Benefits</b>	<b>Baseline (B)</b>	<b>Alternative (A)</b>	<b>Increment (A-B)</b>
<b><u>Domestic Benefits</u></b>	<ol style="list-style-type: none"> <li>1. Environmental management policies, strategies and programmes in Dnieper basin States are uncoordinated; by themselves, national efforts are insufficient to mitigate threats to the river system.</li> <li>2. No existing integrated strategic approach at national level to protection and remediation of Dnieper River Basin.</li> <li>3. National capacities to effect integrated land and water body management measures are limited.</li> <li>4. National stakeholders poorly sensitised to environmental concerns.</li> <li>5. Insufficient financial and legal mechanisms for Dnieper River basin protection and rehabilitation..</li> </ol>	<ol style="list-style-type: none"> <li>1. Co-ordination of river management efforts between and within riparian countries.</li> <li>2. Efforts targeted at identifying and mitigating the root causes of environmental degradation in the Dnieper River basin.</li> <li>3. Institutional and human capacity building in the arena of integrated land and water body management.</li> <li>4. Targeted environmental education and awareness efforts in the Dnieper basin.</li> <li>5. Assess, test and develop legal and financial mechanisms for pollution reduction and sustainable resource use in Dnieper River basin countries.</li> </ol>	<ol style="list-style-type: none"> <li>1. Improved coordination of Dnieper River basin activities at national level.</li> <li>2. Strategies in place for programs to address root casues of Dnieper River degradation; baseline identified.</li> <li>3. National capacities to implement a holistic environmental management regime are strengthened; NAP's developed.</li> <li>4. Civil society more responsive to environmental protection measures (improving the socio-political environment for pursuing long-term sustainable development objectives).</li> <li>5. Improved national capacities for using legal and financial mechanisms towards Dnieper River basin rehabilitation; Priority Investment Portfolio prepared and donors identified.</li> </ol>
<b><u>Global/Regional Benefit</u></b>	<ol style="list-style-type: none"> <li>1. The public lacks an understanding of the transboundary impacts of anthropogenic activities within the Dnieper River basin.</li> </ol>	<ol style="list-style-type: none"> <li>1. Raise awareness of the findings of the Transboundary Analysis and sensitise stakeholders to the need for regional action to mitigate river degradation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Wide civil society support in the three riparian countries facilitates the planning and implementation of management measures (enabling transboundary issues to be addressed).</li> </ol>

<b>Costs/ Benefits</b>	<b>Baseline (B)</b>	<b>Alternative (A)</b>	<b>Increment (A-B)</b>
	<ol style="list-style-type: none"> <li>2. Limited avenues for public involvement in environmental management of the river system.</li> <li>3. Lack of regional institutions to co-ordinate joint action to reduce and prevent transboundary impacts.</li> <li>4. Policy/ legal /economic framework for co-ordinating river management is inadequate; enforcement of existing legislation is poor.</li> <li>5. Lack of integrated strategic approach to Dnieper River basin management and rehabilitation at regional scale.</li> <li>6. Lack of capacity to finance the transactions costs of regional co-operation.</li> <li>7. Lack of regional communication and coordination among and between Dnieper River basin stakeholders/civil society.</li> <li>8. Dnieper River basin activities not integrated into basin-wide approach to rehabilitation of Black Sea.</li> <li>9. Limited understanding of biodiversity hot spots and protected area needs at regional scale.</li> </ol>	<ol style="list-style-type: none"> <li>2. Develop communication, consultation and participation mechanisms for engendering public participation in environmental planning and management.</li> <li>3. Create institutional mechanisms to drive and co-ordinate regional action.</li> <li>4. Improve understanding of policy/ legal/ economic mechanisms required for integrated sustainable river basin management.</li> <li>5. Identify strategic measures to address root causes of transboundary degradation of the Dnieper River system.</li> <li>6. Identification of innovative financing mechanisms for regional management.</li> <li>7. Improve linkages between regional stakeholders through meetings, Internet and print communications.</li> <li>8. Include Dnieper River basin states in Black Sea basin-wide approach coordination activities.</li> <li>9. Assess Dnieper River basin protected areas, priority ecosystems and biodiversity hot spots.</li> </ol>	<ol style="list-style-type: none"> <li>2. Public participation in Dnieper River basin management increases the sense of ownership of civil society over management and rehabilitation efforts.</li> <li>3. Establishment of regional institutional framework for addressing transboundary impacts.</li> <li>4. Policy/ legal /economic framework for addressing transboundary problems established.</li> <li>5. Regional Strategic Action Plan with commitments to baseline (national, other donors) and incremental (GEF) interventions.</li> <li>6. Financial sustainability of regional waterbody management measures and institutions is better assured.</li> <li>7. Enhanced stakeholder coordination and communication at regional level.</li> <li>8. Improved protection of Black Sea international water body via participation of key river basin in strategic approach to region.</li> <li>9. Improved understanding of biodiversity protection and management needs at regional level enabling follow-up action at national and regional levels.</li> </ol>

<b>Costs/ Benefits</b>	<b>Baseline (B)</b>	<b>Alternative (A)</b>	<b>Increment (A-B)</b>
	10. Dnieper river environmental data highly dispersed; collection and utilization of Dnieper data uncoordinated at regional level.	10. Create regional Dnieper River basin environmental database	10. Improved regional capacity for data collection, integration, analysis and use in decision-making.
<b>OBJECTIVE 1:</b> Transboundary management regime and co-ordinating body	• USD 301,000	• USD 1,991,000	• USD 1,690,000
<b>OBJECTIVE 2:</b> Formulate, review & endorse SAP	• USD 0	• USD 610,000	• USD 610,000
<b>OBJECTIVE 3:</b> Financial and legal mechanisms for pollution reduction	• USD 15,000,000	• USD 16,960,000	• USD 1,960,000
<b>OBJECTIVE 4:</b> Formulation of National Action Plans	• USD 7,294,200	• USD 7,819,200	• USD 525,000
<b>OBJECTIVE 5:</b> Improve conservation of biodiversity in the Dnieper River Basin	• USD 4,205,000	• USD 4,480,000	• USD 275,000
<b>OBJECTIVE 6:</b> Communications/ public awareness	• USD 115,000	• USD 836,481	• USD 721,481
<b>OBJECTIVE 7:</b> Build capacity for SAP implementation	• USD 0	• USD 700,000	• USD 700,000
<b>GRAND TOTALS</b>	• USD 26,915,200	• USD 33,396,681	• USD 6,481,481 (Incremental costs to be financed by GEF) • USD 7,628,000 (co-financing)



## Annex 2

### Logical Framework Matrix

#### Preparation of a Strategic Action Programme (SAP) for the Dnieper River basin and Development of SAP Implementation Mechanisms.

Intervention Logic	Indicators of Performance	Sources of Verification	Risks and Assumptions
<p><b>Development Objective:</b> To catalyze the prevention and remediation of the serious environmental effects of pollution and habitat degradation in the Dnieper River Basin</p>	<p>A framework and coordination mechanism for regional and national interventions on behalf of the Dnieper River basin.</p> <p>Improved national and regional capacities for the monitoring, rehabilitation and sustainable management of the Dnieper system</p>	<p>PCU documents</p> <p>Project Task Force meeting reports</p>	<p>Country governments and citizenry remain receptive to needed sectoral, institutional, legal and economic reforms required.</p> <p>Countries remain supportive of regional coordination mechanism</p> <p>Modest turnover/restructuring in key government ministries</p> <p>Capacity building activities are effective and new capacities remain in the countries</p>
<p><b>Project Purpose:</b> A Strategic Action Programme for the Dnieper River basin and national, regional and international capacity for its financing and implementation</p>	<p>Strategic Action Programme formulated and endorsed at ministerial level in each country.</p> <p>Activity Centres engaged in capacity building at national and regional level</p>	<p>Endorsed SAP</p> <p>National and donor commitments to financing SAP implementation</p> <p>PCU documents</p> <p>Activity Centre reports</p>	<p>Countries able to come to agreement on content of SAP</p> <p>Countries able to make financial commitments to baseline investments</p> <p>Activity Centres are effectively coordinated to maximize their effect</p>
<p><b>OUTPUT 1:</b> A transboundary management regime and coordination body for the Dnieper River Basin</p>	<p>Programme Coordination Unit (PCU) established and operational</p> <p>Expert groups established and working</p> <p>Activity Centres established and</p>	<p>PCU documents</p> <p>Expert group TORs and reports</p> <p>Activity Centre TORs and reports</p> <p>Annual Task Force meeting reports</p>	<p>Low government turnover permits preservation of institutional memory in Task Force membership</p> <p>Logistical, financial and institutional arrangements for setting up PCU proceed smoothly</p>

Intervention Logic	Indicators of Performance	Sources of Verification	Risks and Assumptions
	operational  Project Task Force established and operational		Countries able to agree on location and focus of each Activity Centre
<b>OUTPUT 2</b> A Strategic Action Programme for the Dnieper River basin	TDA revised and updated  Capacities and gaps in river basin monitoring assessed  Stakeholders involved  Hot spots and ‘root causes’ identified  Ministerial conference held  Donor and country commitments to financing SAP implementation  SAP broadly disseminated	Revised and updated TDA  Report on monitoring capacities  Stakeholder meeting reports  Report on ‘hot spots’  Final SAP with baseline and incremental costs identified  Letters of intent/commitment from countries and donors  Published SAP; Dnieper Web site	Sufficient breadth of stakeholder analysis and involvement  Countries prepared to make financial commitments to baseline activities  Donors willing to provide loans for baseline activities for various reasons  Countries able to agree upon elements of SAP
<b>OUTPUT 3:</b> Improved financial and legal mechanisms for pollution reduction and sustainable resource use	Priority Investment Portfolio prepared  Feasibility studies on economic instruments and fertilizer/pesticide price reform completed  Legal/enforcement mechanisms reviewed  Dnieper Programme participates in UN/ECE Helsinki Convention Technical and CoP meetings  Review EIA, reservoir, nuclear facility and water treatment guidelines and practices	Summary Report on PIP  Feasibility studies/reports  Report on legal and enforcement mechanisms for pollution reduction and habitat protection  Report on progress towards Dnieper coordination with UN/ECE Helsinki Convention  Selected reports and studies	Country commitment to test and further elaborate economic approaches to pollution control  Country willingness to revise and improve legal and enforcement mechanisms  Dnieper basin countries able to make commitments to UN/ECE Helsinki Convention cooperation and coordination principles  Countries provide sufficient access to necessary information and personnel
<b>OUTPUT 4:</b> National Action	NAP Interministerial committees	NAP committee TORs and meeting	Intersectoral conflict doesn't hinder

Intervention Logic	Indicators of Performance	Sources of Verification	Risks and Assumptions
Plans	<p>established and operating in each country</p> <p>Stakeholders involved in formulation and review of NAPs</p>	<p>reports</p> <p>Report on stakeholder involvement in NAP process</p>	<p>NAP process</p> <p>Possible staffing changes in sectoral ministries doesn't slow down NAP process</p> <p>Stakeholders sufficiently involved/consulted in NAP process</p>
<b>OUTPUT 5:</b> Framework for enhanced capacity for conservation of biodiversity in the Dnieper River Basin	<p>Assessment of biodiversity 'hot spots', relevant legislation and protected areas systems</p> <p>Reviews of Dnieper basin agricultural, fisheries and aquaculture practices</p>	<p>Report on regional biodiversity issues (legal, hot spots, protected areas)</p> <p>Reports</p>	<p>Countries provide adequate access to information on biodiversity legislation and protected areas</p>
<b>OUTPUT 6:</b> Enhanced communications between stakeholders and increased public awareness and involvement	<p>Key stakeholders analyzed and involved in project activities</p> <p>Programme and related Dnieper activities broadly disseminated via Internet</p> <p>New stakeholder networks created</p> <p>Public awareness of Dnieper issues enhanced; Dnieper issues included in environmental education curricula</p> <p>Dnieper-oriented NGOs in region sharing, meeting, coordinating and networking</p> <p>Dnieper Small Grants program under implementation</p>	<p>Report on stakeholder analysis/study; stakeholder consultation reports</p> <p>Dnieper WWW site and data on access frequency</p> <p>Increase in number of NGOs and other civil society connected to and utilizing Internet in Dnieper issues</p> <p>Public awareness and environmental education materials (print and on-line)</p> <p>Reports from bi-annual NGO forum</p> <p>Annual Report of Dnieper Small Grants Programme</p>	<p>Sufficient breadth of stakeholder analysis and involvement</p> <p>All key stakeholders willing/able to participate</p> <p>Sufficient access by citizenry to Internet information on Dnieper and GEF program</p> <p>NGOs have technical capacity to network electronically</p> <p>NGOs able to agree on priority issues and approaches</p> <p>Sufficient submissions of qualified projects for small grants programme</p> <p>Mass media willing to help disseminate information on Dnieper issues</p> <p>Education authorities and teachers willing to cooperate on Dnieper-</p>

Intervention Logic	Indicators of Performance	Sources of Verification	Risks and Assumptions
<p><b>OUTPUT 7:</b> Enhanced capacity for SAP implementation</p>	<p>New technical and human resource capacities created in river basin monitoring</p> <p>Regional environmental database developed and utilized by different stakeholders</p>	<p>Equipment installed in selected labs; personnel trained in equipment operation</p> <p>Reports &amp; evaluations from regional training workshops</p> <p>Web site(s) and/or CD-ROMs; stakeholder requests for data and on-line usage statistics</p> <p>Data intercalibration workshop reports</p>	<p>related environmental education</p> <p>Low rate of personnel turnover maintains institutional memory in equipment operation and maintenance</p> <p>No delays or problems in equipment purchase and delivery</p> <p>Governments and other dataholders willing to provide access to required data; data can be standardized across and between countries for regional intercomparison and analysis</p>
<p><b>Activities</b></p> <p>1.1 Create and operate Dnieper River Basin PCU</p> <p>1.2 Establish international working groups</p> <p>1.3 Establish Activity Centers</p> <p>1.4 Create and coordinate Project Task Force</p> <p>2.1 Evaluate basin monitoring capacities</p> <p>2.2 Revise and finalize TDA</p> <p>2.3 SAP Stakeholder workshops</p> <p>2.4 Pollution ‘hot spots’ study</p> <p>2.5 Draft, review, revise SAP</p> <p>2.6 Ministerial conference for SAP endorsement</p> <p>2.7 Disseminate SAP</p> <p>3.1 Prepare PIP</p>	<p>3.2 Feasibility studies: economic instruments/pollution</p> <p>3.3 Feasibility studies: fertilizer &amp; pesticide pricing</p> <p>3.4 Feasibility studies: econ. instr.</p> <p>3.5 Donor conferences (2)</p> <p>3.6 Assess legal mechanisms</p> <p>3.7 Assess EIA policies/practices</p> <p>3.8 UN/ECE Helsinki Convention coordination</p> <p>3.9 Review Dnieper reservoir operation</p> <p>3.10 Review nuclear waste management</p> <p>3.11 Assess waste &amp; drinking water treatment capacities</p> <p>4.1 Form NAP Interministerial committees</p>	<p>4.2 Develop NAPs</p> <p>4.3 Stakeholder involvement in NAP process</p> <p>5.1 Biodiversity assessment: protected areas, hotspots</p> <p>5.2 Review legal/regulatory framework for biodiversity protection</p> <p>5.3 Review agricultural practices</p> <p>5.4 Review fisheries/aquaculture</p> <p>6.1 Stakeholder assessment</p> <p>6.2 Dnieper Web site</p> <p>6.3 Stakeholder consultations</p> <p>6.4 Expand stakeholder Internet access</p> <p>6.5 Dnieper newsletter(s)</p> <p>6.6 Public awareness/ environmental education</p> <p>6.7 NGO forum</p>	<p>6.8 NGO Small Grants Programme</p> <p>7.1 Provide monitoring equipment</p> <p>7.2 Create regional database</p> <p>7.3 Build regional capacity for environmental monitoring</p> <p><b><u>Pre-conditions</u></b></p>

<b>Intervention Logic</b>	<b>Indicators of Performance</b>	<b>Sources of Verification</b>	<b>Risks and Assumptions</b>



## Annex 4

Incorporation of STAP Reviewer Comments into GEF Project Brief\*

### **Preparation of a Strategic Action Programme (SAP) for the Dnieper River Basin and Development of SAP Implementation Mechanisms**

*1. Relevance to GEF, para. 3: "It would have been relevant to discuss concrete aspects of what would be required to improve, and sometimes replace, the activities that generate the environmental threat".*

This is addressed to some degree in the root cause analysis component of the TDA, and will constitute an important element of the SAP development process during the full project.

*2. Objectives, para. 3: "relevant...to analyze what kind of barriers that exist for investments and what kind of situations and other facilitating mechanisms that could be developed or strengthened to stimulate investments".*

Barrier identification has been added to Objective 3 (#37, lines 2-3) as follows: "...as well as identify barriers to their implementation and propose actions to overcome these barriers."

*2. Objectives, para. 3: "Work on PIP should be linked with effort to reduce or eliminate barriers for the introduction of new and environmentally-friendly technologies.*

Added to Sub-Objective 4.2, Activity vi: "...identify barriers to the introduction of new and environmentally friendly technologies."

*2. Objectives, para. 4: "...a complementary program for investments and concrete actions must be formulated".*

This is intended to be achieved through the Priority Investment Portfolio, donor conference and SAP implementation phases of the full project.

*3. Approach: "...crucial that the mandate of the PCU is clearly spelled out..."*

The full Terms of Reference for the PCU will be elucidated during the formulation of the UNDP Project Document if the project is approved for funding by the GEF Council.

*3. Approach, para. 4: "...it is important that the program (research and monitoring) is coordinated with relevant programs in other countries and international organizations".*

Added to Objective 4 (#38): "These capacity building activities will be coordinated with relevant programs in other countries and international organizations (e.g. IAEA for radionuclide issues)."

**\*STAP review of project brief submitted to Winter '98 Council intersessional.**

## **Annex 5**

### **Dnieper River Basin Programme**

#### **Institutions involved in development of the Transboundary Diagnostic Analysis and Preliminary 'Elements' of a Strategic Action Programme**

##### *Transboundary Diagnostic Analysis:*

Centre for Preparation and Implementation of International Projects on Technical Assistance,  
Russia

Central Scientific Research Institute of Complex Use of Water Resources and Environmental  
Protection, Belarus

Scientific Centre for Water Protection, Ukraine

##### *Strategic Action Programme:*

Centre for Preparation and Implementation of International Projects on Technical Assistance,  
Russia

Central Scientific Research Institute of Complex Use of Water Resources and Environmental  
Protection, Belarus

Institute of Hydrobiology, Ukraine



## Annex 6

### Dnieper River Basin: Recommendations from Project Preparation Phase

#### **1. Coordinated evaluation and management of transboundary priorities**

- Better coordinated approach and oversight of regional problems and remedial activities
- Regional analysis and management regime for transboundary issues
- Identification or assessment of critical pollution hotspots and necessary remedial actions
- More attention given to socio-economic factors of pollution and impact on human health

#### **2. Facilitation of the SAP formulation, review and endorsement process**

- Fill data gaps to establish clear priorities on transboundary concerns
- Analysis and recognition of "root causes" of key environmental problems
- Improved structures for investigating and implementing priority programs
- Enhanced framework for planning and investment for regional priorities

#### **3. Financial and legal mechanisms for improved pollution control strategies**

- Develop better legal mechanisms (laws, regulations, licensing/permitting systems) to prevent or reduce pollution in receiving waters
- Create a standardized legal mandate for environmental impact assessments
- Address financial constraints facing anti-pollution enforcement mechanisms and compliance strategies
- Utilize economic mechanisms to stimulate investment in pollution reduction and management programs

#### **4. Formulation and harmonization of monitoring and management schemes**

- Enable measures to reduce non-point source pollution from agricultural runoff
- Development of an international management regime for the Dnieper River Basin (see Issue 1.)
- Improve technical and operational standards of water treatment facilities
- Strengthen safety precautions around nuclear energy facilities and radioactive waste disposal sites
- Reach agreement on water quality standards among the countries
- Evaluation of data gaps and data collection needs
- Improve monitoring capacity for priority pollutants
- Reach agreement on standardized methods for monitoring across the countries
- Increased attention paid to mechanisms of source based reduction of industrial pollution

#### **5. Conservation of biodiversity and sustainable land use management**

- Broaden areas dedicated to protection of biodiversity
- Enhance uniformity in legal protection of wildlife and ecosystems within nature reserves
- Improve matching of biodiversity hotspots with appropriate measures for the protection of critical ecosystems or land resources
- Strengthen structural integrity of reservoirs
- Control deforestation, over-cultivation and reduction of naturally vegetated areas

- Improve measures to safeguard soil fertility and reduce excessive accumulation of fertilizers and pesticides in soil
- Improve water efficiency in large-scale irrigation development; curtail expansion of abandoned land

#### **6. Communication among stakeholders; public awareness and participation**

- Enhance environmental awareness within governmental agencies in general
- Improve inter-sectoral communication among government representatives
- Strengthen infrastructure for information collection and exchange between government, scientific agencies, and public organizations (NGOs)
- Raise governmental priority to promote public environmental awareness
- Improve access to existing information by independent scientific/community groups
- Enhance dissemination of information and activities to monitor or minimize pollution
- Strengthen exchange of information between independent scientific or community groups
- Improve communication channels among and between stakeholders, particularly involving NGOs and the public
- Broaden knowledge of socio-economic and health impacts of environmental degradation in the Dnieper River Basin
- Enhance participation of community groups to promote public awareness
- Increase emphasis on environmental education in regular school curricula
- Increase financial resources for community groups to carry out environmental awareness, research or monitoring initiatives

## Annex 7

### **Dnieper River Basin: Project Preparation History**

3/22/96 Formal start date of Dnieper Program

4/25/96 First inception meeting<sup>3</sup>

6/1/96 Meeting of the Ministers of Environment of Belarus, Russian Federation, Ukraine in Helsinki

6/19-20/96 First Dnieper Coordinating Council Meeting held in Kiev

7/22-23/96 First Project Task Force Meeting; revised budget submitted to UNOPS

9/10-11/96 First TDA National Experts meeting held at Ukrainian Scientific Center for Water Protection in Kharkiv

10/7-9/96 Second Meeting of TDA Experts at Berezinsky Biosphere Reserve in Belarus.

10/10/96 Second Task Force Meeting held in UNDP Office in Minsk, Belarus<sup>4</sup>

1/22-24/97 Joint Meeting of Coordinating Council and Task Force meeting held at the UNDP Programme Management Unit, Moscow, Russian Federation

2/27-28/97 Experts Meeting on SAP held at UN/UNDP Office, Kiev, Ukraine

4/24-25/97 First SAP national experts meeting held at the Marine Research Institute of Biology of the Southern Seas in Odessa, Ukraine.

6/26-27/97 Task Force Meeting held at UN/UNDP Office, Kiev, Ukraine

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<sup>3</sup>4/25/96 in Ukraine with Mr. Phillippe Elghouayel, RBEC Division Chief; Stephen Browne, Ukraine UNDP resident representative; Vasil Shevchuk, Ukrainian Deputy Minister of Environmental Protection

<sup>4</sup>10/10/96 Second Task Force Meeting held in UN Office in Minsk, Belarus with participation of International Experts, UNDP, World Bank, TACIS and Greenpeace-Ukraine

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<b>PROJECT BUDGET</b>		
<b>Strategic Action Programme for the Dnieper River Basin</b>		
<b>Activity</b>	<b>Description</b>	<b>Amount (US\$)</b>
<b>Objective 1. Create &amp; maintain a transboundary management regime and coordinating body</b>		
i.	Fund the Dnieper Basin Programme Coordination Unit (Dnieper PCU) - 3 yrs.	\$900,000
ii.	Establish and fund international expert working groups - 3 yrs.	\$200,000
iii.	Establish national activity centers, 1-2 in each country	\$500,000
iv.	Annual meeting (3) of Project Management Task Force @\$30,000 each	\$90,000
	SUBTOTAL	<b>\$1,690,000</b>
<b>Objective 2. Assist countries in the SAP formulation, review &amp; endorsement process</b>		
i.	Evaluate existing monitoring capabilities in basin & identify critical gaps	\$50,000
ii.	Revise, update, finalize and publish TDA	\$150,000
iii.	Hold experts meetings/workshops to determine priorities & 'root causes' of environmental problems and to articulate SAP actions	\$120,000
iv.	Identify pollution 'hot spots' for subsequent rehabilitation/investments	\$120,000
v.	Draft, review, refine and finalize SAP, including identification of baseline and increm. costs	\$90,000
vi.	Ministerial conference for SAP endorsement	\$50,000
vii.	Publish (print & on-line) and broadly disseminate and publicize SAP	\$30,000
	SUBTOTAL	<b>\$610,000</b>
<b>Objective 3. Improve financial, legal &amp; operational mechanisms for pollution reduction &amp; sustainable resource use</b>		
<b>3.1 Financial mechanisms for environmental management/Investment portfolio</b>		
i.	Preparation of a Priority Investment Portfolio (PIP) following hot spot ID and SAP	\$1,200,000
ii.	Feasibility study: Economic instruments to regulate municipal/industrial pollution	\$100,000
iii.	Feasibility study: Price reforms to regulate fertilizer and pesticide use	\$100,000
iv.	Feasibility study: Economic instruments to regulate use of natural resources	\$100,000
v.	Hold (2) donor conferences to identify donors for SAP and PIP priority activities	\$80,000
<b>3.2 Improve legal and operational mechanisms for pollution reduction &amp; sustainable natural resource use</b>		
vi.	Evaluate existing legal/regulatory structure re: pollution and resource use	\$80,000
vii.	Assess and review EIA policies and practices in region	\$50,000
viii.	Advance implem. of coop'n. principles in UN/ECE Convention on transboundary waterbodies	\$50,000
ix.	Review management guidelines and practices for Dnieper reservoir operation	\$50,000
x.	Review management guidelines and practices for nuclear facilities and disposal sites	\$75,000
xi.	Assess operational capacities and practices of selected drinking & waste water plants	\$75,000
	SUBTOTAL	<b>\$1,960,000</b>
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<b>Objective 4. Formulation of National Action Plans (NAP) by Interministerial Committees</b>		
i.	Formation of NAP interministerial committees	\$25,000
ii.	Assistance to countries in the development of NAP's	
	Belarus	\$125,000

	Russia	\$100,000
	Ukraine	\$200,000
iii.	Public participation in NAP development and endorsement process	\$75,000
	SUBTOTAL	<b>\$525,000</b>
<b>Objective 5. Improve conservation of biodiversity in the Dnieper Basin</b>		
i.	Conduct an assessment of protected areas, priority ecosystems & biodiversity hotspots	\$80,000
ii.	Review legal and regulatory framework for Dnieper basin biodiversity protection	\$60,000
iii.	Review & assess agricultural practices in context of pollution reduction and soil conservation	\$60,000
iv.	Review status of fisheries and aquaculture in the region; identify gaps and problem areas	\$75,000
	SUBTOTAL	<b>\$275,000</b>
<b>Objective 6. Enhance communication and encourage public awareness and involvement</b>		
i.	Facilitate socio-economic assessment and the identification of key stakeholders	\$50,000
ii.	Improve information access and dissemination through the WWW and Internet list-servers	\$50,000
iii.	Hold regular (1/yr) consultations and workshops with broad stakeholder involvement	\$120,000
iv.	Expand Internet access for key stakeholders with priority for those w/o existing service	\$50,000
v.	Publish & disseminate project and Dnieper basin information (print & on-line)	\$80,000
vi.	Enhance involvement through well-publicized regional Dnieper basin events	\$80,000
vii.	Sponsor annual NGO forum for networking and regional capacity building	\$100,000
viii.	Create & admin.a Dnieper basin small grants program for NGOs & community org'ns.	\$191,481
	SUBTOTAL	<b>\$721,481</b>
<b>Objective 7: Build capacity for SAP implementation</b>		
i.	Provision of equipment to fill gaps in monitoring capacities identified in 2i	\$350,000
ii.	Create regional Dnieper River basin environmental database with on-line user capacities	\$200,000
iii.	Provide training in river basin monitoring to fill gaps identified in 2i	\$150,000
	SUBTOTAL	<b>\$700,000</b>
	SUB GRAND TOTAL	<b>\$6,481,481</b>
	Executing Agency Support Costs:	<b>\$518,519</b>
	GRAND TOTAL	<b>\$7,000,000</b>