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Implementation of The Dnipro Basin Strategic Action Program for the reduction of persistent toxics pollution

The project builds on the previous GEF investment in the Dnipro basin which led to the development and country adoption of the Dnipro Strategic Action Programme (SAP).

The objective of the project is to begin implementation of the ministerially approved SAP via governance reforms and demonstration projects aimed at reducing transboundary persistent toxic substances by small/medium size industries discharging through municipal waste systems in the Dnipro basin.

The project will address its objective through the implementation of four major components;

i) *Conducting a series of Pilot Projects to introduce cleaner production methods to several medium sized industries discharging through municipal wastewater systems, including the development of sustainable financing mechanisms and local regulation and monitoring procedures;*

ii) *Developing a comprehensive Transboundary Monitoring and Indicators Program which will provide information on the status and progress of the SAP implementation program to Dnipro Basin management bodies;*

iii) *Facilitating the introduction of harmonized environmental legislation which will improve monitoring procedures, strengthen regulatory and legal frameworks including, inter alia, those governing cleaner technologies;*

iv) *Establishing key institutional and management structures within the wider SAP management bodies.*

TABLE OF CONTENTS

ACRONYMS

Abbreviation	Definition
1	2
APR	Annual Progress Report
AWP	Annual Work Plan
Belarus	Republic of Belarus
Belarus National Programme	National Action Plan for the Sustainable Management of Natural Resources and Environmental Protection in the Belarus
CIDA	Canadian International Development Agency
CIS	Commonwealth of Independent States
CP	Cleaner Production
CTA	Chief Technical Adviser
Declaration	Ministerial Declaration on Further Development of Cooperation on the Protection of the Dnipro Basin, 17 July 2007
DLIST	Digital Library of Information Science Technology
Dnipro Agreement	Draft Agreement between the Governments of the Republic of Belarus, the Russian Federation and Ukraine in the Field of Sustainable Management and Protection of the Dnipro Basin
Dnipro Council	Dnipro Basin Regional Council
Dnipro Countries	Dnipro basin countries - Belarus and Ukraine
Dnipro NGO Network	Regional Dnipro River NGO Network
Dnipro Program	Dnipro Basin Environment Programme
DPSIR	Driving Force – Pressure – State – Impact – Response
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EU	European Union
FE	Final Evaluation
FSU	Former Soviet Union
GEF	Global Environment Facility
GIWA	Global International Waters Assessment
HNAP	Harmonization National Action Plans
IAEA	International Atomic Energy Agency
IFO	International Finance Organizations
IDBC	International Dnipro Basin Commission
IDRC	International Development Research Center
IR	Inception Report
IW	International Waters
IW:LEARN	International Waters Learning Exchange and Resource Network
IWG	International Work Group
IWRM	Integrated Water Resource Management
JMC	Joint Management Committee
LTEQOs	Long-term Environmental Quality Objectives
M&E	Monitoring and Evaluation
MAC	Maximum Allowable Concentration
MDGs	Millennium Development Goals
MTE	Mid-term Evaluation
NAP	National Action Plan
1	2
NEX	National Execution
NGO	Non Governmental Organization
NGO Forum	Regional NGO Forum

NIS	Newly Independent States
NPFP	National Project Focal Points
NPMC	National Programme Management Committee
PDF B	Interim Project Phase for the Preparation and Development of Project Proposal
PIF	Project Identification Form
PIR	Project Implementation Review
PMU	Project Management Unit
PTS	Persistent Toxic Substances
QPR	Quarterly Progress Report
RCU	Regional Coordinating Unit
RBM	River Basin Management
RTC	Regional Thematic Center
Riparian States	Belarus, Russia and Ukraine
Russia	Russian Federation
RWG	Regional Working Group
SAP	Strategic Action Programme
SC	Steering Committee
SIP	Stakeholder Involvement Plan
SME	Small and medium size enterprises
SRF	Strategic Results Framework
TACIS	EU Programme for Technical Assistance for the CIS
TDA	Transboundary Diagnostic Analysis (2003)
TMP	Transboundary Monitoring Programme
TOC	Table of Concordance
TOR	Terms of References
TPR	Tri-partite Review
TTR	Terminal Tripartite Review
Ukraine National Programme	National Programme for Dnipro Basin Rehabilitation and Improvement of Drinking Water Quality (1977)
UN ECE	United Nations Economic Commission for Europe
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNDP RBEC	UNDP Regional Bureau for Europe and the CIS
UNDP-CO	United Nations Development Programme Country Office
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
UNOPS	United Nations Office for Project Services
USD	United States Dollars (US$)
USSR	United Soviet Socialist Republics
Vodokanals	Municipal waste water treatment and sewage systems
WFD	EU Water Framework Directive
WG	Working Group
WTO	World Trade Organization
1	2
WwTP	Waste Water Treatment Plant
WWW	World Wide Web

SECTION I: ELABORATION OF THE NARRATIVE

PART I: Situation Analysis

PROJECT CONTEXT

Progressive degradation of the Dnipro Basin ecosystem became apparent by the early 1990s, especially in the middle and lower reaches of the Dnipro River. This critical situation arose as a direct consequence of large-scale industrialization, uneven development of heavy and chemical industries, and unsustainable resource uses and practices that completely disregard environmental values and priorities. The scale of changes that have occurred in the natural ecosystems of the Basin is so great that many of them cannot be reversed. The effect of these changes on the habitats and living conditions of the human population has been no less dramatic.

Most of the consequences of environmental degradation in the Dnipro Basin are transboundary for its riparian countries, and regional in the context of their impact on the Black Sea which is now widely recognized as one of the regional seas most damaged by human activity. This in turn has global implications as the Black Sea affects the ecosystem and climate of the whole Mediterranean region as well. Having become aware of this, the riparian countries of the Dnipro Basin committed themselves to taking decisive action to protect and restore the Basin ecosystem.

In 1995 the Ministers of Environment from Belarus, Russia and Ukraine signed a Memorandum on Cooperation for the Dnipro Basin Rehabilitation expressing their intention to work together and pool their resources. On the basis of this document, financial support and technical assistance was sought from the Global Environment Facility (GEF) for the development of the international programme for environmental rehabilitation of the Dnipro Basin.

GEF Council subsequently approved the preparation of a Strategic Action Programme (SAP) for the Dnipro Basin and the mechanisms for its implementation all of which were developed within the framework of the UNDP-GEF Dnipro Basin Environment Programme (Dnipro Program). This latter programme was launched in December 1999 and provided financial support and technical assistance to Belarus, Russia and Ukraine. The total GEF contribution was 7 million USD with co-financing provided from UNDP, the International Development Research Centre (IDRC), and the riparian countries for a total budget of $14 million USD.

The overall implementation of the Dnipro Program was the result of the joint efforts of Belarus, Russia and Ukraine; assisted by such international executing agencies as UNIDO, IDRC, IAEA, UNEP and UNOPS.

In the first phase of the Dnipro Program the riparian countries were highly successful in developing a GEF guided Transboundary Diagnostic Analysis (TDA) and SAP, which identified and began to address the principal causes of transboundary degradation in the Dnipro river. The co-operation required by the three countries to jointly develop the TDA and SAP was greatly enhanced by their common heritage in terms of scientific background, environmental legislation and economic development.

The Dnipro SAP was notable for defining the long-term Environmental Quality Objectives (LTEQOs), agreed among by the three participating countries, and short-term steps for achieving them. These steps comprised a set of coherent, logical and complementary actions that constituted a programmatic tool for achieving the specified objectives. In the process of detailed elaboration of these options, special focus was placed on the financial resources, legislative and institutional improvements required to ensure the implementation of priority actions, planned over 5, 10 and 15 years.

The resultant Dnipro SAP has now been endorsed at the highest level by the governments of Ukraine and Belarus. Together these two countries comprise 80% of the territory of the Dnipro basin. Regrettably political considerations impeded the ability of Russia to accord the SAP

similar endorsement status and as a result Russia will not be participating in the next stage of proposed GEF activities. Nonetheless Belarus and Ukraine will continue to encourage Russian cooperation in the Dnipro basin through existing bilateral and future initiatives. (For the purposes of this document the Dnipro Basin countries (Dnipro Countries) will refer to the Belarus and Ukraine).

The TDA and SAP identified as an agreed priority the management of transboundary pollution, in this case Persistent Toxic Substances (PTS) of industrial origin. The Priority Investment Program, drawn up during the preparation of the SAP, indicates a major problem in the discharge of industrial waste through municipal waste water treatment systems (the Vodokanals).

Accordingly the present Full Project (Project) will target the small and medium size industries discharging their waste water to Vodokanals and conduct several small scale demonstration projects which will demonstrate innovative approaches, financing, and the introduction of cleaner technologies in the Dnipro Countries. In doing so the project will draw on lessons from an earlier UNDP-GEF project introducing cleaner technologies in the Danube river basin.

The immediate outcome of the project will be a series of demonstrable examples of stress reduction of specific PTS based on preliminary indicators and past test results derived from the SAP and from the industries themselves. A collateral benefit is also expected from the robust implementation of cleaner technology methodology which will deliver a more comprehensive suite of indicators which can then be utilized by other industries. Taken together they will result in an efficient capture of knowledge products, lessons and best practices to be delivered to other industries and Vodokanals for replication. It is anticipated that successful demonstration projects will also attract serious interest and future large scale financing from EBRD and the WB, which will adjust their lending practices accordingly.

The long term expected outcome anticipates a significant reduction in wastewater discharge into the Dnipro River and its tributaries with immediate benefits for the Black Sea. This in turn will have a positive downstream impact on the Mediterranean region and by extension to the wider global environment as well.

Although some institutional capacity has been built there is still no Convention on the Dnipro River and no precedents for multi-lateral environmental co-operation at this level between the post-Soviet riparian states. Accordingly the Project stands to achieve a more long lasting impact by supporting Dnipro Countries initiatives leading to the signing of the draft Agreement between the Governments of the Belarus, the Russian Federation and Ukraine in the Field of Sustainable Management and Protection of the Dnipro Basin (Dnipro Agreement). It is anticipated that both Belarus and Ukraine will sign this document in the immediate future which will lead directly to the creation of an International Dnipro Basin Commission (IDBC) for managing the water resources of the basin. The document will be structured so as to allow for Russia to accede at a later date.

Such measures are likely to be introduced gradually and the project will advise on implementing appropriate legislative changes and will monitor compliance and progress as they are implemented. Taken as a whole, the successful implementation of the Project will represent a unique achievement whose success and progress will facilitate ease of replication and encourage new forms of co-operation in other environmental sectors of the region as well.

GEOGRAPHIC SCOPE

The Dnipro is a great river, owing not only to its hydrology, but also to its role and significance in the formation and development of three great Slavic nations. Indeed, the past history, present environmental and economic conditions, and future destiny of Belarus, Russia, and Ukraine are deeply entwined with the Dnipro.

The Dnipro River is the third largest in Europe (after the Volga and the Danube) and the second-largest river emptying into the Black Sea. It drains an area of 511,000 square

kilometers and has a total length of 2,200 km. The Dnipro River is a transboundary system, with less than 20% of the river basin within the territory of Russia, 23% in Belarus, and the largest portion, more than 57%, in Ukraine (Figure 1).

The river system of the Dnipro Basin has been regulated with a large number of reservoirs, channels, conduits, ponds, dams and locks/gates. Overall, 564 reservoirs have been constructed in the Basin with a total area of 775.6 km^2 and a capacity of 46.2 km^3. The flow of the Middle and Lower Dnipro (from the Pripyat River inflow to the town of Kakhovka) is regulated by a chain of huge reservoirs (the Kyiv, Kremenchug, Dniprodzerzhinsk, Dniprovsky and Kakhovka reservoirs – the latter, along with the Kremenchug reservoir, are among the largest water reservoirs in the world). Very little of the natural river channel remains, being restricted to a short length downstream of Dniprodzerzhinsk.

Figure 1. Map of the Dnipro Basin

The land resource of the Dnipro Basin has been intensively used for a number of different purposes. Three fifths of the Basin area has lost their original natural landscape features as a result of highly intensive land use. About 50% of the Basin area is occupied by agricultural land.

The Dnipro Basin is a diverse economic region of environmental and socio-economic importance. Not only does it contain natural resources of social value (e.g. water, land and forest resources) but it is also a valuable asset for various economic developments, medium

and small businesses. It sustains major urban centers, and a large number of small and medium-size towns (see the Dnipro Basin Passport in Section IV, Part V).

The Dnipro Basin is a unique Eastern European ecosystem sustaining a rich biological diversity. There are more than 35 nature reserves and protected areas in the Dnipro Basin that enjoy the national status and occupy only about 1.6% (8,100 km^2) of the catchments area. Clearly, the existing nature reserve capacity is not adequate to ensure full protection and conservation of plant and animal species, both native and migratory ones.

The mineral resource base of the upper part of the Basin (within Russia) is rather scarce and limited to relatively small deposits of low-grade coal, peat, and locally used construction materials. At the same time, the rich and diverse mineral resource base in the Belorussian and Ukrainian parts of the Dnipro Basin have driven the large-scale development of mining and processing industries that dominate these economies.

Large-scale land drainage schemes, covering about 4.5-5 million ha of the Basin territory, have contributed dramatically to the environmental degradation. Massive drainage works, along with extensive peat extraction activities, have ravaged surrounding areas. The impact of drainage activities on water resources has been no less dramatic, leading to major alterations of the hydrographic network, changes in the morphometric characteristics of water bodies and their catchments, modification of flow regime, and a fall in the water table of 1.0-1.5 m.

Every year, about 1,500,000 tonnes of mineral substances and up to 700,000 of aggressive soluble organic compounds enter the Dnipro River with surface runoff from drained land, and this pollution load is further carried with river flow into the Black Sea. The rate of drying-up is so great that it can lead to progressive expansion of devastated spots to the extent where they merge and form vast degraded zones possessing the features of semi-desert. Clearly, this represents a potential threat of a major transboundary/regional disaster for the whole of Central Europe.

CURRENT SOCIO-ECONOMIC SITUATION

The Dnipro Basin has been described as a “classic example of unsustainable development” due to the past Soviet legacy of trying to convert a traditionally agricultural region into a major industrial one within a span of a few decades. The situation has been complicated by the extreme social and economic difficulties faced by all three riparian countries in their transition to market economies.

In relation to Eastern Europe as a whole, the Dnipro River Basin has a medium population density. The estimated population of the Basin at the beginning of 2001 was about 32.4 million, broken down by country as follows: 3.6 million within the Russia; 6.3 million within Belarus; and 22.2 million people within Ukraine. The level of urbanization is high, with about 69% of the Dnipro Basin population living in urban areas, characterized by intensive industrial activity, excessive exploitation of natural resources, and heavy anthropogenic load on the environment.

The following major trends in demographic situation have emerged over the last decade, being characteristic for each riparian country and the Dnipro Basin as a whole:

- A decline in the total number of population and fall in birth rate;
- An increase in the urban population and reduction in the rural population.

Economic development in the region has followed a highly specific pattern, featuring high industrial density and concentration of heavily polluting chemical and metallurgical industries, and large agricultural complexes.

The collapse of production activity in the early 1990s and dramatic reduction of per capita GDP values have resulted in the deterioration of living conditions in all three countries. Following a long period of systemic socio-economic crisis, the economic situation has

stabilised and started to manifest certain signs of growth since 2000, leading to a gradual improvement of living standards in the Basin.

The growth rates have been particularly high in the following sectors: the building material industry, food processing industry, light industry, and ferrous metallurgical and petrochemical industries. Small and medium-size businesses have started to play an increasingly important role in the regional economy.

By comparison the scale and progress of privatization is far less advanced in Belarus where the process has been largely 'notional' and consists largely of the state transfer of ownership to a local government or other legal entity with the state continuing to retain a majority interest. Nonetheless some investment opportunities are becoming available that might not be readily accessible in a traditional market economy. While the economy of Belarus still remains largely centrally managed, budget allocations for the country's environmental sector continues to remain relatively high. In addition the Government finances a progressive State Investment Programme that supports industries aiming to introduce and implement ISO 14000 systems and procedures. As a result the Project will make the accessibility of these funds a top priority for the pilot projects selected in Belarus.

Coincidentally the implementation of the Project in Ukraine will take place following the recent passage of the Law On Environmental Audit (2004) which requires all remaining state companies undergoing privatization to first complete a pre-sale environmental audit. The law also requires that the purchaser undertake to phase in ISO 14000 standards as part of the purchase offer. This has made such firms more attractive to trans-national companies and has contributed to a growth industry in environmental management services and environmental audits.

Commercial survival in such new and changing economic conditions has become a major challenge for the overwhelming majority of industrial enterprises in Belarus and Ukraine. The issue of economic development and the search for new markets is seen as the most important priority while environmental issues continue to remain far down the list.

At the same time the cost of services provided by Vodokanals has serious implications for those enterprises which avail themselves of their services. Budgetary issues, competitive position in the marketplace and production costs all have an impact on the decision making process of industrial managers and especially as they define their commercial relations with the Vodokanals.

This is especially evident in the area of pollution fees where regular indexation by relevant government authorities forces Vodokanals to review and adjust their service tariffs. This issue also needs to be considered in the context of the following two parallel developments:

- Ukraine's recent accession to the WTO and aspiration towards EU membership requires that its national legislation be brought into harmony with EU laws;
- Belarus has adopted a proactive approach which uses non-ideological methodologies and objective frameworks that lead to the same result where their national environmental legislation will become harmonized with EU laws.

For those industrial managers possessing a strategic vision the implications of the above developments are clearly understood and they realize that the time has come to implement technical upgrades and/or introduce cleaner production (CP) methods in their respective enterprises.

However the general picture emerging from a survey completed as part of the PDF-B/PIF is that most industry managers remain unaware of CP opportunities, potential sources of financing and the benefits accruing from environmental management systems.

As a result an important strategic objective for the Project will be to demonstrate and disseminate the environmental and economic benefits received by the Pilot enterprises through their participation in the Programme. These would include:

- Environmental benefits: Real reduction in pollutant loads (by at least 60%) associated with process effluents and/or a 20-30% reduction in BOD by implementing low-cost improvements; fostering new environmental attitudes among industry managers and creating a new culture of relationships with Vodokanals, local authorities and the general public.
- Economic benefits: Achieving, in the long term, significant savings by minimizing/avoiding non-compliance charges; improving management and production efficiency together with demonstrable examples of how savings in production costs can make funds available to finance CP technology improvements. This can also be reinforced by the use of various available economic instruments.

POLICY CONTEXT

Despite ongoing social and economic difficulties, the governments of Belarus and Ukraine are making significant efforts to improve the environmental situation in the basin. In February 1997, the Parliament of Ukraine passed the "National Programme for Dnipro Basin Rehabilitation and Improvement of Drinking Water Quality" (Ukraine National Programme) – the first national environmental programme in Ukraine based on a water basin approach. A similar environmental programme is being considered by Belarus.

However these early legislative programmes merely introduce the general notion of river basin management, making little or no provision for appropriate legal and institutional arrangements required for this concept to work in practice. The lack of adequate national capacity for addressing and tackling key environmental issues is exacerbated by the lack of practical experience with joint management of shared river basins. Existing joint management commissions set up for transboundary water basins are narrowly focused in their activities, with their mandate being limited to specific water management tasks, falling far short of integrated river basin management objectives. As a result the Dnipro Basin Agreement intended to be finalized during the current Project is a virtually unprecedented attempt by these two countries to establish and launch a real and workable mechanism for managing the Dnipro Basin.

Ukraine's previously mentioned accession to the WTO and its EU/NATO aspirations have obvious implications for their national environmental policy as well As an example, the new "Concept of National Environmental Policy to 2020" recently adopted by Ukraine (approved by a Resolution of the Cabinet of Ministers of Ukraine on October 17, 2007 - No. 880) offers new perspectives for cleaner production, which in itself represents a key priority of the national environmental policy. In the very near future, the development and adoption of a new National Environmental Policy and Strategic Action Programme will demonstrate how effective such approaches towards promoting cleaner production can be. In the meantime there is an obvious need for intensifying cleaner production efforts in both countries as is demonstrated by the low figures for ISO 14000 environmental management certification in the table below:

Table 1. Certified ISO 14,000 Industries Belarus - Ukraine.

Country	Number of enterprises certified to ISO 14000[1]		Total
	National certification	International certification	
Ukraine	29	27	56
Belarus	122	14	136

PRIORITY TRANSBOUNDARY ISSUES

In preparation of the Dnipro TDA/SAP twenty two GIWA[2] issues from five major concern areas were assessed in order to determine their relevance and transboundary nature in the context of the Dnipro Basin. As a result of this analysis twelve major transboundary issues were identified and examined in the TDA of which the following six issues were considered a priority:

1) Chemical pollution - PTS;
2) Modification/loss of ecosystems or ecotones and decreased viability of biological resources due to contamination and diseases;
3) Modification of the hydrological regime;
4) Eutrophication;
5) Flooding events and elevated groundwater levels;
6) Pollution by radio nuclides.

The immediate causes of these transboundary issues are closely linked to resource uses and practices in the following sectors of the economy: industry (including energy, mining, metallurgy, and chemical), agriculture, transport, fisheries, and urbanization. They can also be attributed to the consequences of the Chernobyl accident.

Nonetheless the TDA concluded that Chemical Pollution remains the first priority. Moreover it also showed that whereas Belarus and Ukraine comprised 81% of the total catchments area they accounted for over 95% of the transboundary pollution loads. Accordingly Russia's lack of participation, although regrettable, will not impact on the target areas as most of the concentrated efforts still need to be focused on the Belarus and Ukrainian part of the basin. (See the Table 2 below):

Table 2. The General Pattern of Pollution Loads in the Dnipro Basin[3]

Ingredients	**Russia**		**Belarus**		**Ukraine**		**Total**	
	tons	**%**	**tons**	**%**	**tons**	**%**	**tons**	**%**
BOD	2720	7%	17534	45%	18450	48%	38704	100%
Ammonium NH_4	1255	7%	11600	64%	5412	30%	18267	100%
Ammonium NO_3	1298	5%	5120	18%	22030	77%	28448	100%
Ammonium NO_2	95	2%	374	8%	4328	90%	4797	100%
Suspended Solids	3600	6%	25100	44%	28580	50%	57280	100%
Average		**5%**		**36%**		**59%**		

A more detailed table showing the full range of chemical/PTS concentrations in the Dnipro basin can be found in Section IV, Part VIII.

The sources of transboundary chemical pollution can be categorized as coming from; (1) diffuse sources as well as from two main industrial sub-sectors, (2) the major industrial complexes, generally with their own treatment facilities, (3) the groups of smaller and medium sized industries that discharge effluents through the Vodokanals, and (4) the Vodokanals themselves.

[1] Annual National reports of the State of the Environment , Circa 2006.
[2] Global International Waters Assessment, Mee, L.D., Bloxham, M.J., Glegg, G.A., Hart, V., Beaumont, N. C. and Payne, S., University of Plymouth, 2001. http://www.unep.org/dewa/giwa/
[3] Joint Ukraine, Belarus Dnipro Basin Expedition 2002.

(1) ***Diffuse pollution sources*** account for a substantial though as yet unmeasured proportion of the total pollution load received by the Dnipro. The assessment of pollution Hot Spots, completed as part of the initial SAP process was only focused on point sources and therefore the full range and amount of diffuse sources remains unknown. This is further complicated by the fact that that current methodologies and practices for assessing such sources are lacking in Belarus and Ukraine (the basin countries). Potential sources of such diffuse pollution are extremely varied and include pesticides, herbicides, fungicides together with other PTS associated with the storage and application of poisonous chemicals. The issue of diffuse pollution is therefore a priority that needs to be addressed by the basin countries. Accordingly the Project will respond to this need by assisting with the development of a unified approach for assessing diffuse pollution sources.

(2) ***Major industrial complexes;*** all major industrial enterprises operate their own discharge outfalls to release effluents directly to water bodies after preliminary treatment at their respective sites. Very few of these industrial giants use the facilities of Vodokanals to handle and treat their effluent flows. Where this is the case, it is typically the result of a scenario where: (a) an existing WwTP was constructed in the past pursuant to an agreement with a local municipality where permission was given for its construction in order to provide treatment capacity for effluent flows generated by this enterprise together with a collateral obligation to collect and treat household effluents generated by this municipality. Later, (b) this Vodokanal was expropriated by a decision of the municipal council[4] and taken over by the municipality. As a result, (c) the industrial giant was forced to become a client of a municipal water utility.

The major industrial customers of Vodokanals can be grouped into the following two main categories: (1) relatively stable and viable industries with established markets for their products, both within the country and abroad. These industries normally have on-site treatment capacity to treat their effluents prior to discharging to the Vodokanals. Being successful and viable, these enterprises are attractive for foreign and national investors, which are required to implement various cleaner production related improvements according to national legislation. (2) Unviable industries that have serious problems with product sales, typically operating on the verge of bankruptcy. These industries and their assets are often split among numerous small and medium enterprises that make use of service infrastructure available at these sites. It is these small to medium enterprises that the Project will focus on.

In the initial stage of PDF B/PIF preparation the World Bank appeared to be particularly interested in working with Ukrainian heavy industry which contributes significantly to the total pollution load, including heavy metals, discharging to the Dnipro. However major changes in the political climate over the past three years have led to the privatization of many major metallurgical complexes such as Zaporizh Stal'. The use of transparent tender procedures in such privatizations has not only helped raise the market value of these plants but also enhanced the implementation of key relevant environmental laws including the previously mentioned Law on Environmental Audit. Such practices have had the desired twin effect of attracting financing and accelerating the introduction of cleaner technologies at the heavy industry level. As a result the World Bank has readjusted its priorities with regard to Ukraine, focusing instead on other areas such as manufacturing and governance reform.

(3) ***Small and medium size industries***. Categories (1) and (2) leave the more complex task of dealing with the large number of small and medium size industries which cumulatively pose a more major pollution threat to the basin. During the PDF B/PIF phase the Project carried out a preliminary survey/ assessment of approximately 60 industrial enterprises discharging their effluents through sewer networks owned by the Vodokanals. The survey revealed that the presence of PTS in process effluents caused the accumulation of

[4] This was the practice during the Soviet era.

poorly degradable pollutants in the sludge at the Vodokanals thereby making it unsuitable for any form of commercial reuse. In the absence of dewatering capacity, the majority of Vodokanals have to rely on settling ponds for passive sludge dewatering. The lack of appropriate storage capacity and sludge management often causes the existing sludge lagoons to overfill resulting in further contamination of the basin's water resources. This in turn gives rise to the following issues:

Environmental issues: Surface water and groundwater contamination by heavy metals and their compounds.

- Sanitary/health issues: There is a real risk that groundwater contaminated by heavy metals may pass into the centralized municipal water supply systems, exacerbated by poor technical condition of these systems.
- Socio–economic issues: Local executive authorities and Vodokanals face a challenge of searching/allocating additional land required to increase the available storage capacity for wastewater treatment sludge. In the context of large-scale privatisation and steadily growing prices for land in the suburban areas, this environmental issue has now acquired both socio-economic and political dimensions.

(4) ***The Vodokanals***. The SAP identified Vodokanals as major source of transboundary pollution in their own right. A review carried out during the PDF B/PIF suggests that proposed technical upgrades and treatment capacity improvement measures, while not able to resolve all issues, nonetheless are expected to bring significant improvements in terms of reduced nutrient and BOD/COD loads.

The EBRD has concentrated its regional efforts on working with Vodokanals such as the municipal WwTP extension/upgrade project in Zaporizhzhia now approaching completion. EBRD loans are currently directed at large capital projects in the lower basin cities of Zhitomyr, Lutsk and Kherson in Ukraine. However the preparation and implementation of these projects is significantly impeded by such factors as the Vodokanals monopolistic position in the water treatment sector, their municipal ownership and their inability to change/raise tariffs for water supply and wastewater management services under current political conditions.

It appears that there is an obvious need for an integrated approach to pollution reduction, which involves both technical upgrades at the Vodokanals themselves and preventative measures designed to reduce pollutant concentrations in effluent flows that the system. Only this approach will be able to produce benefits in terms of eutrophication abatement and reduction of PTS. The consolidation of project efforts and synergies with relevant EBRD initiatives will represent a real and significant step forward that will maximize the efficiency of this integrated approach.

In summary the Project will address the full range of chemical pollution, including PTS, coming from the sources identified in Category (3), i.e. small and medium sized industries discharging their effluents through the Vodokanals.

THREATS AND ROOT CAUSES

The transboundary environmental issues in the Dnipro Basin listed in the previous section are driven by three root causes:

i) Historical unsustainable development

The existing state of the Dnipro Basin ecosystem is ultimately the legacy of large-scale unsustainable development in the decades prior to transition to a market economy. This includes the concentration, scale and siting of industrial and agricultural complexes in the Basin. The extensive use of natural resources with little regard for ecosystem function has led to major, and in some instances, irreversible changes in the terrestrial and aquatic ecosystems within the Basin.

ii) The systemic socio-economic crisis during the transition to a market economy

The transition from a centrally planned to a market guided economy has been accompanied by a sharp decline in standards of living, widened income inequalities and deterioration in health conditions. The uncertainty of the conditions in which the economic transition is taking place, including the institutional environment and the weak state of law enforcement have; (a) hampered the progress of economic reform; (b) limited the development of market mechanisms; and (c) led to an economy based on immediate profits that gives little emphasis to environmental issues.

iii) Prevailing attitudes which undervalue the environment

The lack of past attention to the value of the natural environment (as a provider of goods and services and for its intrinsic value) have led to a poor current state of awareness of the consequences of environmental degradation in government and civil society and a limited degree of motivation for environmental protection.

The above root causes are affected by important cross-cutting sectoral causes which further exacerbate the transboundary issues. These are:

- Limited capital investment;
- Lack of incentives to introduce improved operational practices
- Lack of incentives to introduce improved resource- and energy-saving technologies;
- Ineffective environmental/economic regulation instruments for the sustainable management of nature uses and pollution control;
- Inadequate level of staff training;
- Inadequate implementation of environmental monitoring;
- Inadequate enforcement and control of compliance with environmental legislation/regulations.

In recent years, the Dnipro Basin countries have made significant efforts to improve their policy and legislative framework for environmental protection and management. Their key achievements can be summarized as follows:

- Issues relating to the development and introduction of CP methods have been addressed in key policy documents that define the country's objectives and priorities for sustainable development;
- Ukraine has started moving ahead with the legislative harmonization process in order to bring its environmental legislation in conformity with relevant EU laws, whereas Belarus has actively worked to enhance its national environmental legislation by a series of convergence steps that bring it closer to international norms.
- Both Dnipro Basin countries have joined a number of international conventions such as:
  1.) UN/ECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 1992);
  2.) Stockholm Convention on persistent organic pollutants (Stockholm, 2001);
  3.) UN/ECE Convention on Environmental impact assessments in a transboundary context (Espoo, 1991);

  that include specific provisions concerning the prevention and control of environmental pollution, enhancement of monitoring capacity, and the establishment of relevant basin management structures at the national and international level.

These achievements notwithstanding, many serious challenges remain to be addressed. While cleaner production methods and other modern environmental management concepts and instruments have become increasingly popular world wide, the Dnipro Basin countries are moving in this direction at a very slow pace, with practical actions largely limited to local initiatives sponsored by municipalities, export-oriented businesses, or pilot projects within the framework of international technical assistance projects.

The following issues represent serious obstacles that continue to impede the introduction of cleaner production methods, development of transboundary monitoring capacity, and other improvements proposed as part of the Project:

- a flawed system of water resource management and an urgent need for adopting and implementing basin management concepts;
- little emphasis on environmental considerations in the sectoral development programmes;
- lack of a systemic approach to implementing public awareness actions designed to provide information on CP methods and encourage the participation of NGOs;
- an inadequate environmental monitoring capacity that requires enhancement and the introduction of local monitoring systems;
- lack of effective economic and financial mechanisms to ensure the sustainability of the CP development/introduction process;
- weak institutional/human/scientific capacity for developing and implementing CP methods.

The outcomes, outputs and activities set out in the Strategic Results Framework (SRF) are specifically designed to address these obstacles to ensure the long-term success of the Project. (see Section II, Part II)

STAKEHOLDER ANALYSIS

During the first phase of the Dnipro Program considerable attention was paid to involving a broad range of stakeholders in the determination of environmental and social priorities and in identifying appropriate interventions.

In order to ensure the continuation of this broad involvement in future implementation of the SAP, the Dnipro Program established the Dnipro Basin Regional Council (Dnipro Council) composed of members drawn from the Natural Resources and Environment Ministries, leading scientific and research institutions, local government bodies of the riparian regions (oblasts), and environmental NGOs of the respective countries.

The aforementioned structure now functions at the regional level and is intended to act as an advisory body to the proposed IDBC, its interim secretariat and the PMU. At the sub-national level, local governments and NGOs will serve as the main vehicle for engaging regional stakeholders and the broader public.

The main actors at this level will be the Regional NGO Forum (NGO Forum), supported by the Regional Dnipro River NGO Network (Dnipro Network). The Dnipro Network is a voluntary association of nongovernmental organizations and social-pressure groups in Belarus, Russia and Ukraine whose goal is to promote Dnipro Basin remediation efforts and positive changes in environmental protection and conservation policies pursued by the governments of these countries. It coordinates its activities through the appointment of national coordinators who meet periodically as a coordinating group. They in turn are responsible for convening the NGO Forum where representatives of all members can attend for the purpose of resolving key issues relating to the effective operation of the Dnipro Network and planning joint NGOs activities. The NGO Forum is also instrumental in defining collective responses to strategies of SAP implementation. NGO Forum decisions are adopted by consensus.

This same process of public participation and formal stakeholder involvement through the NGO Forum and the Council is intended to provide links to broader funding mechanisms and advise on the preliminary implementation of the SAP.

The Stakeholder Involvement Plan for the Project is located in Section IV, Part IV.

BASELINE ANALYSIS

The current baseline situation in the Dnipro basin countries is as follows:

In ***Ukraine*** the environmental policy in the Dnipro basin continues to be governed by the Ukraine National Programme (1997). The creation of an environmental programme for a specific river basin in Ukraine was a unique precedent following the collapse of the Soviet Union.

The programme was initially developed as a stand-alone strategic document intended to be solely financed from revenues collected by the state budget in the form of resource use charges and environmental pollution fees.

Unfortunately due to the absence of political will and clearly articulated priorities, this programme was only able to enjoy financial support from the state budget only during the first two years after its adoption (1998–1999).

The successful completion of the Dnipro Program Phase 1 helped focus the government's attention leading to a request that relevant ministries and agencies review the programme and identify key priorities for financing. The review resulted in the allocation of the sum of $3 million USD from the state budget in 2004.

In 2008, as in 2004, the Audit Chamber of the National Bank of Ukraine reviewed the annual budgets of the previous years and critiqued the environment Ministry for their failure to utilize National Programme funds for activities targeting environmental rehabilitation in the Dnipro basin. The Cabinet of Ministers, in turn, has requested the Ministry to review the National Programme as a matter of state urgency in order to identify financing priorities for inclusion into the 2009 State Budget of Ukraine.

As a result of the above, the Ministry has now indicated that they will begin active interventions targeting the priorities identified in the Dnipro SAP as part of their collective response to environmental issues in the Dnipro basin.

In addition to the National Programme, Ukraine has an additional programme of immediate relevance to the Dnipro Basin Transboundary Monitoring Programme (TMP) as it is an important component of the SAP. The programme, known as "The State Earmarked Environmental Monitoring Programme", includes a provision for spending $424,000 USD during the period 2008-2010 on transboundary monitoring activities in the Dnipro Basin.

The situation in ***Belarus*** differs from Ukraine somewhat as the country does not have any national programmes reflecting river basin management principles Belarus does however have a "National Action Plan for the Sustainable Management of Natural Resources and Environmental Protection in the Belarus" (Belarus National Programme). This programme sets out specific environmental rehabilitation measures for the Dnipro Basin. Given that the Dnipro Basin within Belarus accounts for more than half the country's territory, it is entitled to a substantial proportion of state funding for environmental activities from the state budget.

In contrast to Ukraine, where financial support for its National Programme remained suspended for several years, the Belarus National Programme consistently receives annual funding from the state budget. As an example, in 2007 the State Environmental Protection Fund released $201 million USD to finance the Belarus National Programme, including $83 million USD to finance relevant projects included in the State Investment Programme; and a further $67 million USD for the implementation priorities of the Ministry of Environment.

As in Ukraine, Belarus has its own National Environmental Monitoring System which, over the last three years, has spent over $700,000 USD financing the implementation of the Dnipro Basin Transboundary Monitoring Programme developed during Phase 1 of the Dnipro Program.

Baseline Situation and continued GEF support

In 2007 Belarus and Ukraine gave approval to the Dnipro SAP and are now actively proceeding with implementation activities. Due to political considerations, Russia regrettably was unable to respond to the 'raising of the bar' and Belarus and Ukraine are now left with

the joint task of sustaining momentum and showing that SAP endorsement can/will lead to further support aimed at alleviating specific pollution issues in the basin.

While examples of such progress are exemplary and laudable the fact remains that Belarus and Ukraine have only recently commenced the difficult political and economic transition from soviet style management and the potential risk of failure continues to remain high. Failure to sustain this process also carries the inherent risk that the underdeveloped capacity of the governments to resist centrifugal forces will lead them to revert back to earlier methods of central control, fragmented policies and lack of transparency. The resultant impact on the environment and set back to the reform process would be immeasurable.

PART II: Strategy

INSTITUTIONAL, SECTORAL AND POLICY CONTEXT

In the first phase of the Dnipro Programme the riparian countries were highly successful in developing a TDA/SAP which identified and began to address the principal causes of transboundary degradation in the Dnipro River. They also developed respective National Action Programs to carry out interventions to manage pollution and other national and transboundary issues. Accordingly the Project is fully consistent in its evolution from existing National environmental strategies being implemented by the countries.

Over the past eight years, the hallmark of the Programme has been its focus on building and strengthening intergovernmental and multisectoral partnerships for sustainable river basin development. Progress has been made in several areas of partnership arrangements, and has resulted in the following:

1) ***At the local level***, the Dnipro Program Phase 1 successfully demonstrated the effectiveness of hot spot assessments in various basin regions together with the potential value of environmental audits and the ensuing economic benefits that would come with the introduction of cleaner technologies.

In addition the earlier provisions of laboratory equipment and training opportunities for experts expanded the sources and quality of first hand information on water pollution. By raising such capacity at the local level, the communities of the basin are now better able to utilize the new information resources made available to them. Taken together this will lead to an improvement in their ability to analyze and monitor pollution discharges into the Dnipro and its tributaries.

2) ***At the national level***, both Belarus and Ukraine have expanded their national budgets for interventions in the Dnipro basin. In particular, Ukraine's budget for water quality related investments and control measures along the Dnipro and its tributaries have increased threefold since 2001.

The Dnipro Program Phase 1 promotion of the development of national policies, legislation and action plans to strengthen basin governance led directly to the commencement of significant policy reform. By 2007 Ukraine's government developed a new concept on environmental policy which in turn should lead to the development of a new national strategy and financing programme.

In Belarus the key principles in their environmental policies set out in the "National Sustainable Development Strategy of Belarus (1997)", have been updated and now include provisions for the rational use and protection of water resources.

The Dnipro Program Phase 1 had a modest impact on introducing changes to national environmental legislation giving rise to optimism that the Project will be able push this agenda even further. Belarus has already drafted a new law for Environmental Impact Assessment (EIA) in the aftermath of an EIA review conducted during Dnipro Program Phase 1. In addition the main elements of the developed during the Dnipro Program have now been

incorporated into the Belarus Programme on Development of a National Monitoring System. And while the legal reforms underway in Ukraine may be as much a result of its focus on eventual EU accession, it too benefited from the Dnipro Program environmental policy review and recommendations which coincided with their recent successful entry into the WTO.

3) ***At the regional level*** the countries have yet to establish a regional mechanism for coordinating the implementation of the Dnipro SAP. However the Dnipro Program Phase 1 served as an initial catalyst for raising this discussion to a political level. It should be noted that the initial Dnipro Program was implemented during a time of considerable change in the region. In particular, the political and economic relationships between the former Soviet Republics changed dramatically. The redefinition of regional relationships served as a backdrop to the heightened challenge of achieving new transboundary agreements for further cooperation in the basin.

Nonetheless expectations were that such an agreement could be negotiated during the first phase of project implementation. However it took a full three years before the Kyiv Declaration on Cooperation in the Dnipro Basin was signed at the 5th Pan-European meeting of European Environment Ministers in Kyiv (May 2003). Four years later the Dnipro countries were still discussing how to proceed with SAP approval and the creation of a regional agreement.

However, in June 2007 the environment ministers of Belarus and Ukraine signed a declaration formally approving the SAP and declaring their further commitment to the formation of a regional commission to mange the basin and its water resources.

The bilateral approval of the SAP now sets the stage for a new era in environmental cooperation and will serve to invigorate the ongoing negotiations to create an IDBC. In this regard the ongoing negotiations to sign the draft Dnipro Agreement are seen as critical to the current policy context.

Policy context. Historically the initiative of the Dnipro Basin countries concerning the development and adoption of the Agreement was steered by the successful river basin management precedents in a number of European transboundary basins such as the Danube, Rhine, Elba and Oder. Driven by these examples the Dnipro Basin countries recognized the need and urgency of adopting a basin management concept as a basis for addressing and tackling transboundary environmental issues. Article 9 of the Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes (1992) calls on the riparian parties to develop and establish an international basin agreement for each major transboundary water system.

Recent EU expansion has enhanced EU financial and technical assistance to the region. As part of their EU accession agreements the new member countries are required to take specific steps aimed at implementing the provisions of the WFD, including the establishment of joint basin management bodies, development of river basin management plans and implementing joint measures designed to reduce pollution in their respective water basins. Similar steps are also required to be taken in those water catchments that are shared with Belarus and Ukraine. This is fully in line with Ukraine's aspirations to join the EU and is also in line with the recent moves by Belarus to bring their environmental legislation into conformity with best international practices and relevant European laws.

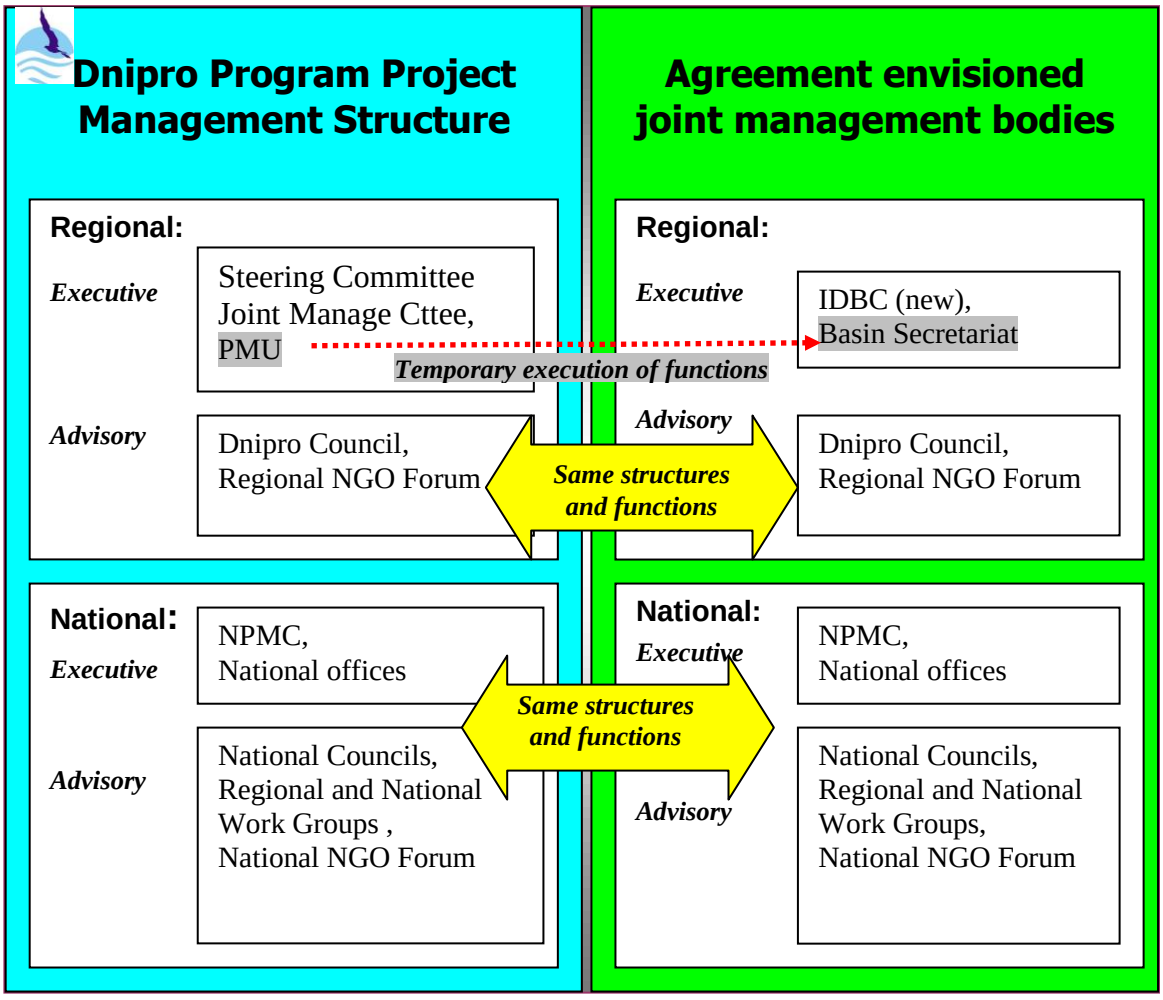
Existing bilateral agreements[5] between the Riparian States and institutional arrangements have provided a basis for joint efforts to address various issues associated with management

[5] Agreement between the Government of the Belarus and Cabinet of Ministers of Ukraine on the Joint Management and Protection of Transboundary Water Bodies, 2001.
Agreement between the Government of Ukraine and the Government of the Russian Federation on the Joint Management and Protection of Transboundary Water Bodies, 1992.

and protection of cross-border water bodies. However, each of these agreements primarily represents a general framework that is not linked to any specific catchments basin or water body and, as such, yields little or no practical result in terms of international basin management on a cooperative basis. With their major focus placed on water resources, these bilateral agreements are inadequate to meet the basic needs of integrated basin management and are therefore seen as only a partial solution to the issue of environmental rehabilitation of the Dnipro Basin.

As a result there is no alternative to developing new and more effective structures for integrated regional basin management of the Dnipro basin. Developing such structures can only be ensured through implementation of the existing SAP and National Action Plans, coordinated and supported by the existing joint basin management bodies set up and maintained by the parties. These efforts also require the functioning of an effective TMP designed to measure progress of SAP implementation and a regular review process required to update and revise the strategy if and when necessary.

Institutional and sectoral context. There are two potential scenarios for achieving the goals and objectives specified in the Project. These scenarios were elaborated in greater detail in the previous section dealing with Strategy overview. They are also represented graphically below:



To recap:

Agreement between the Government of the Belarus and the Government of the Russian Federation on the Joint Management and Protection of Transboundary Water Bodies, 1994.

Scenario 1. The Dnipro Basin countries fully implement the Project in the allotted time frame 2008–2011. During this period the Dnipro Countries endorse the draft Dnipro Agreement and establish the International Dnipro Basin Commission (IDBC) and all its supporting bodies.

Scenario 2. The Dnipro Basin countries lack the political will to adopt the Dnipro Agreement within a reasonable period of time and resume direct responsibility for funding any continuing support activities during the course of the Project.

The proposed institutional framework for Project implementation (presented above) is fully compatible with either scenario and is ideally suited to handle any potential risks that may arise during its implementation.

Assuming a successful evolution of Scenario 1 the IDBC would be the only management body that would still need to be created. The existing institutional bodies, created earlier in the Dnipro Program, would remain in place without change to their structure or functions. The management of the scientific Regional Thematic Centers (RTC) would be similarly taken over by the IDBC in a phased in manner.

The inter-sectoral approach to managing the Project is considered to be very important in the context of planned cleaner production activities, as sectoral environmental policies pursued by key ministries will have a direct impact on the range of potential options for ensuring sustainable financing of the cleaner production sector. The role of such sectoral policies is particularly important in Belarus, where notional privatization has resulted in a re-distribution of industrial assets among state-owned corporations and/or controlled agencies. Under this arrangement, industries operating under such an umbrella have better access to financial resources and the support required to introduce CP methods. By contrast, access to financial support in Ukraine is likely to be more problematic for truly privatized enterprises as the various financial sectors of the economy still need to undergo significant reforms in order to better understand and assess the opportunities and risks for investing in the cleaner production sector.

PROJECT RATIONALE AND POLICY CONFORMITY

The GEF has already made a considerable investment in supporting the regional development of the Dnipro SAP and in defining preliminary interventions to counteract major environmental issues, especially those of a transboundary nature.

To date the GEF has designed and implemented a series of extensive and consistent interventions in the Black Sea basin. The former Black Sea Environmental Programme provided a comprehensive and integrated framework, especially in combination with a number of regional UNDP-GEF programmes targeting the major river systems emptying into the Black Sea (Danube, Dnipro, Don). The provision of technical and financial assistance for specific rehabilitation actions in the Dnipro Basin would now represent a logical extension of earlier efforts and contributions to the Dnipro Program to-date. In that regard the regional importance of the Dnipro basin cannot be overestimated as it remains the main water artery and vital source of drinking water for the populations in Belarus and Ukraine.

The GEF's continued technical and financial support to the Dnipro Basin countries is both relevant and necessary for a number of reasons: (1) First and foremost, the GEF involvement in the Dnipro Basin is considered crucial in terms of ensuring the sustainability and irreversibility of international cooperation between Belarus and Ukraine for managing the Basin. The first phase of the Dnipro Program has already proved to be successful not only for having developed an agreed upon SAP but for also having nurtured the preparation of the draft Agreement for future cooperation in the Dnipro leading to the creation of the IDBC. Bringing this Agreement to the signature stage remains a question of time and the proposed Project will ensure this momentum is sustained. (2) The presence of a Project will help ensure that the Dnipro Basin countries are more effective in mobilizing and channeling national resources and the necessary support required for environmental rehabilitation actions in the

Basin. (3) The proposed GEF contribution towards building the institutional capacity/sustainability will prove invaluable considering the fact that the capacity required to establish and operate international basin management bodies is still limited in the Dnipro Basin countries. (4) The UNDP-GEF methodologies are considered to be the best suited for ensuring the active participation and involvement of the public in the basin management process, and (5) providing precedents for designing and implementing an effective information/awareness campaign in order to facilitate the exchange of information and experience among basin stakeholders.

Given the previous and on-going support dating back to 1995, it would be inconsistent for the GEF not to fund the current Project on reduction of PTS, which has emerged as a regional priority for the Dnipro Basin. Accordingly the Project is designed to build on the earlier experience of managing shared water bodies in the region and deal with over arcing issues relating to EU Accession such as harmonization of legislation to international and EU standards. This in turn will provide valuable lessons for joint management of other water bodies in Eastern Europe which have yet to benefit from the experience of GEF interventions in the Danube and Dnipro.

Accordingly the current design of the Project fits Strategic Objective 1 for GEF 4 IW Strategy by facilitating the implementation of agreed policy/institutional reforms including the creation of an IDBC and on-the-ground stress reduction investments to address transboundary water concerns.

The Project also corresponds to Strategic Objective 2 for GEF 4 as it will play a catalytic role in addressing transboundary water concerns by assisting countries to utilize the full range of technical assistance, economic, financial, regulatory and institutional reforms that are needed, including active leveraging of co-financing. The Project is designed to establish / strengthen the necessary capacities among the participating countries and their national and regional partners, which will transform the activities in the Dnipro Basin from a donor-sponsored, regional enabling project into a country-owned, self-sustaining regional mechanism for the implementation of the Dnipro SAP.

The Project also supports the GEF-4 priority transboundary concern of reducing Land-based pollution through implementation of national policy, legal, and institutional reforms consistent with agreed transboundary action programs and innovative demonstration projects focusing on the introduction of cleaner technologies and wastewater discharge abatement.

Finally the Project conforms to Strategic Programme 4 which focuses on the reduction release of PTS. GEF's contribution will have the added benefit of reducing human and ecosystem health risks from PTS at these selected demonstration sites. The immediate benefits from such intervention should lead to PTS pollution prevention strategies becoming increasingly acceptable as mainstream policy programmes for private sector industries.

PROJECT GOAL, OBJECTIVE, OUTCOMES AND OUTPUTS

The Project *developmental objective* is to begin implementation of the ministerially approved SAP via governance reforms and demonstration projects aimed at reducing transboundary persistent toxic pollutants by small/medium size industries discharging through municipal waste systems in the Dnipro basin. This will be achieved via mobilization of existing partnership arrangements, supporting the development of new institutional mechanisms based on basin management principles, reinvigorating the shared legacy of scientific cooperation, facilitating the development of civil society and engaging the resources of the private sector for the achievement of the shared vision of sustainable use of the resources of the Dnipro Basin.

The Project's *global environment objective* is to promote environmental sustainability of the Dnipro River basin and downstream Black Sea LME by achieving improvements in the quality of surface water, groundwater, health and sanitary conditions in the Dnipro basin together with improvements in the background social and economic conditions in the

population of the Dnipro basin. The acquired knowledge and lessons learned are intended to be transferred to countries in the region and to the world at large.

In pursuit of these objectives, the Project consists of four (4) *major components* and will be implemented through a suite of activities described in detail in the next section of this Project Document.

The overarching strategy of the project is founded upon *four values*, which are built into each component of the work program, namely:

- Partnerships, involving governments and key stakeholders from the public at the local, national, and international levels, are the foundation for change. A unique development for the region will be the first ever participation of the private sector as a major component and key stakeholder. Each component activity of the project begins as a partnership, and each partner brings a positive dimension to problem solving and overcoming the barriers and constraints to achieving the objectives of the Project.
- Capacity development is a continuing process. It begins with education and training, but is nurtured and expanded through application, hands-on experience, information sharing, knowledge development and transfer and, basically, learning from each other. Each activity of the project entails some form of capacity development, mobilizing existing intellectual capital at the community level, scientific institutions, government agencies, the private sector, and/or the international community, for the benefit of the work program and, over the longer term, for sustainable social, economic and environmental development.
- The efficacy of the project's 'scaling-up' thrust is dependent upon the outcomes of policies, activities and investments that will serve as good practices for replication within a country, or among countries of the region, under similar circumstances. The replication potential of a policy, practice or process is therefore a key measure of its value, and is integrated into each activity of the work program.
- Societal change happens over an extended period. With the development of awareness, understanding, and capacity transformations in the environment occur. Measuring and assessing progress toward desired goals of the project requires indicators that not only focus on the long-term changes in the environment, but also indicators that reflect the behavioral shifts of society and responses to the root causes of environmental degradation and destruction.

Adaptive management underpins the various components of the project's work program, in recognition of the many different and complex issues in the Dnipro basin. Moreover the ongoing transition from a Soviet command style economy to a democratic and market environment brings with it unique challenges for project management and stakeholders alike. As a result, the processes in each component are flexible and gradual; outputs serve as guideposts that may need to be realigned or at least rescheduled depending on the local situation; and progress is always measurable but the rate of progress is relative to capacity. These aspects of adaptive management, and others, will be applied throughout the implementation of the work program.

Project Outcomes, Outputs and Activities. The respective outputs and outcomes of the Project, as well as the matrix of priorities to be implemented in Belarus and Ukraine reflect the results of national workshops, consultations and negotiations carried out in the Basin Countries during the earlier PDF B and the later PIF preparation stage. As a result the activities set out below have been designed to address the main priority issues, the ongoing National Programmes of the Basin Countries, their national stakeholders, as well as their respective needs and capacities.

ACTIVITIES PLANNED UNDER THE PROJECT, EXPECTED RESULTS AND REQUIRED RESOURCES

The Project Outcomes, Outputs and Activities set out below are also described in the Strategic Results Framework Section II, Part II and Component 1 is also dealt with in more detail in the Pilot Projects Implementation Strategy of Section IV, Part VII.

Component 1.

To implement Pilot Projects introducing cleaner production methods to small/medium size industries discharging persistent toxic substances into municipal waste water treatment systems.

The introduction of cleaner production methods by small/medium size industries discharging persistent toxic substances into municipal waste water treatment systems foresees two strategic approaches:

A. Low-cost environmental improvements, and
B. Implementation of pilot projects

A. Low-cost environmental improvements

In order to prevent water pollution in the Dnipro Basin, especially by PTS (primarily heavy metals and also oil products, surfactants and phenols), the Project will approach approximately 25 additional enterprises to offer them technical assistance to help formulate their corporate environmental strategies and implement low-cost environmental improvements. It is anticipated that the following industrial processes will be included: metal fabrication with electroplating processes, chemical industry, textile industry and tanneries. Subject to their agreement to participate, the implementation of low-cost environmental actions will aim to:

1. Reduce the loads of persistent toxic substances associated with process effluents generated by these enterprises, with a load reduction to be in the range 20–30% (at least 10%).
2. Examine and assess the feasibility (financial, managerial, administrative, technical, etc.) of implementing low-cost measures classified as Category A actions;
3. Assess/evaluate environmental and economic benefits associated with these low-cost improvements and disseminate lessons learned from these activities through other Project activities.

B. Implementation of demo/pilot projects

The implementation of pilot projects at 5 selected sites foresees capital investment in new local treatment facilities will aim to:

- Reduce pollution loads associated with nitrogen, phosphorus and organic compounds (expressed in terms of BOD and COD) and oil products present in process effluents generated by pilot enterprises, with a load reduction in the range 70–90 % (at least 60%).
- Carry out a comprehensive study to assess the possibility and feasibility (financial, managerial, administrative, technical, etc.) of proposed capital investment projects mainly relating to the development of on-site wastewater treatment capacity;
- Assess/evaluate environmental and economic benefits associated with proposed capital investment projects and disseminate lessons learned from these activities among the 60 industrial enterprises initially covered by the selection process.

Both approaches will: (1) provide technical assistance and support required to review and enhance existing legal framework, for both CP research/development and water protection against pollution, with a view to achieving consistency and harmonization with relevant EU legislation; (2) organize and carry out a training programme on various aspects of

environmental management, including the review and evaluation of environmental performance at an enterprise level, implementation of environmental management systems, and improvement of enterprise management system and procedures (production planning and process control, quality management, efficiency/productivity improvement options etc.). It is anticipated that the trainings will be customized and targeted at specific participants selected from a larger pool which would include, plant managers, staff engineers, relevant officials from local authorities, Vodokanal specialists and NGO representatives.

An important strategic objective for the Dnipro Programme is to demonstrate and disseminate benefits, both environmental and economic, received by partner enterprises through their participation and involvement in the Programme.

The specific objectives of this Component include:

(a) The introduction of innovative and sustainable financial mechanisms,

(b) Conducting a feasibility study for the establishment of a regional Cleaner Production Centre (CPC).

The proposed performance and impact indicators for this component along with their corresponding means of verification are presented further in the "The Strategic Results Framework".

Outcome 1 (a): Replicable pilot/demo projects demonstrate stress reduction measures of persistent toxic pollutants.

Outputs 1.1: Two to three industries in both Belarus and Ukraine will introduce appropriate cleaner technologies.

Activity 1.1: Preparation of a CP Programme of Actions to introduce CP methods for each industry participating in the Pilot Project phase.

Activity 1.2: Preparing and implementing specialised CP Training Courses for engineering and technical staff of pilot industries.

Activity 1.3: Implementation of 5 pilot CP investments in Belarus and Ukraine to be co-financed by selected participating industries.

Activity 1.4: Implementation of low-cost CP improvements at an additional 10 industries in Belarus and 15 industries in Ukraine.

Outcome 1 (b): Increased capacity development for adoption of the Cleaner Production concept at the national level.

Outputs 1.2: Report of tailored proposals of soft loans, tax incentives, licensing, tariffs and incremental costs.

Activity 1.5: Enhancing the incentive-based mechanisms for promoting the CP approach by offering assistance with the drafting of new laws and regulations specifically designed to encourage the introduction of CP methods.

Activity 1.6: Strengthening sustainable financing arrangements to support the implementation of specific CP projects at the selected pilot industries. This will involve the following specific elements:

- Providing assistance with the preparation of required application documents for international funding agencies in order to mobilize required investment finance.
- Providing assistance with the preparation of the government approval process for the project design documentation.

- Providing assistance with the preparation of required organizational/technical presentations for potential investors.

Outputs 1.3: Report of recommendations detailing regulatory changes needed to facilitate introduction of cleaner technologies including the feasibility of a Cleaner Technology Center.

Activity 1.7: The Project will support the preparation of a draft CP Concept consisting of an enhanced strategic planning framework for the promotion/introduction of CP methods. This will involve:

- a review of current national legislation in order to assess whether the existing framework is adequate to support the transition towards CP patterns, and recommend changes to current laws and regulations in order to bring the national legislation in consistency with that of the EU;
- the development and implementation of measures designed to integrate and incorporate the CP Concept into national environmental legislation.

Activity 1.8: Improving institutional capacity designed to support the development and establishment of an effective mechanism for cooperation and coordination, both regional and inter-agency, and includes the establishment and maintenance of appropriate institutional structures. These measures include, inter alia:

- Conducting a review of the needs and the capacity requirements for establishing a CP Center (s) in Belarus and/or Ukraine;

Activity 1.9: Improving awareness and access to information on CP issues among legislative/executive authorities, industry managers and the general public by ensuring:

- Regular publication of project results/achievements on the project website, mass media, internet and other information sources; and summarising/publishing/disseminating relevant information and knowledge on CP methods among the industrial industries in the Dnipro Basin;
- Provision of information about CP methods to the public and all relevant stakeholders.

Activity 1.10: Enhancing educational and human resource capacity by taking measures which will improve knowledge and expertise in cleaner production and environmental management/protection among various target industry groups. These measures include, inter alia:

- the development and implementation of CP Action Plans to include specific training models tailored for target audiences;
- the preparation of a training programme on CP methods and other modern environmental strategies for higher and secondary educational institutions.

Activity 1.11: The Regional Working Group on Cleaner Production will collect recommendations from the respective National Working Groups on issues dealing with necessary regulatory changes needed to facilitate introduction of cleaner technologies including the feasibility of a Cleaner Technology Center. These will be passed on and incorporated into the recommendations for SAP revision as contemplated in Activity 4.11.

Outcome 1 (c): Reduced point source discharges to shared water body resulting in improved chemical, biophysical and biological parameters

Output 1.4: Report detailing proposed systems to monitor at point discharges for compliance and/or effectiveness of the CT process.

Activity 1.12: Enhancing legal and institutional mechanisms for regulating industrial discharges by developing methodological guidelines designed to improve specific aspects of existing water quality regulation and pollution control systems. These regulatory issues will deal with, *inter alia*:

- The adjustment of (QA/QC) systems in a manner that takes into account the perceived environmental/health hazard of each pollutant and if appropriate, recommend a potential reduction in the number of regulated parameters thereby enhancing the ability to focus on those which are a priority.

Component 2.

To prepare a Transboundary Monitoring and Indicators Program (TMP) for SAP implementation.

Ukraine and Belarus acceded to the Helsinki Convention in 1999 and 2003, respectively. However, the time since has been categorized by missed opportunities in terms of developing/providing relevant legal and regulatory frameworks to enable the implementation of key provisions of this Convention. Water monitoring is an integral element and important mechanism of water management, and the lack of significant progress towards the introduction of basin management principles severely impaired any efforts taken to integrate these principles into the existing water quality monitoring and assessment systems. Ukraine is a particularly striking example in this respect, demonstrating a lack of progress in improving coordination, information exchange and allocation of key functions/responsibilities among many agencies involved in water monitoring. Overlapping/conflicting/duplicating functions of these agencies often results in ambiguity and generalities together with an over arcing inability to set long-term monitoring objectives and strategies. This, in turn, leads to inefficient use of limited human, financial and technical resources, while the lack of clarity in formulating management objectives makes the achievement of desired results all but impossible.

The Joint Ministerial Declaration signed by the environment ministers from the Dnipro Basin countries on 17 July 2007, is expected to rejuvenate environmental cooperation between Belarus and Ukraine and will likely culminate in the signing of the Dnipro Agreement. The signing of the Agreement will open the way to establishing regional basin management bodies, both executive and advisory. This, in turn, will shape the development/formulation of new information needs and, consequently, the evolution of a true TMP strategy. At the present stage, all existing information needs are considered to be sufficiently reflected in the draft TMP strategy and no significant changes/modifications are expected. It should be noted however, that the national monitoring systems in the Belarus and Ukraine have continued to evolve since the first TMP preparation in 2004 and some specific actions identified for the TMP Stages 1 and 2 have now been completed. Accordingly, the following issues will be addressed in the Project:

1. The TMP will be adjusted to take into account changes in the national priorities relating to the development/improvement of existing monitoring arrangements, including the provision for local monitoring capacity for control/assessment of persistent toxic substances and their levels in the environment.
2. The TMP will be revised to meet GEF requirements regarding the introduction of process indicators, stress reduction indicators, environment/water resources & socioeconomic status indicators together with a European DPSIR system of indicators.
3. Proposals will be developed and reviewed concerning the capacity development for hydrobiological monitoring as part of the TMP; these proposals will take into account the provisions of the WFD for specifying reference conditions for each water body or sections thereof based on a suite of hydrobiological indicators included in the TMP.

4. The development of a TMP in agreement with the WFD will require preparing a suite of biological in order to provide a broader integrated monitoring framework that can be used to monitor SAP implementation.

The specific objectives of this Component include:

- Developing a monitoring strategy and enhancing the regulatory/legislative and technical/organizational framework for TMP implementation;
- Developing an optimal transboundary monitoring network as part of TMP implementation;
- Ensuring the operation and development of a TMP information management system.

In order to achieve these objectives, the Project will support the implementation of a suite of interrelated tasks and activities, which are described below. The proposed performance and impact indicators for project implementation, along with their corresponding means of verification, are presented further in the "The Strategic Results Framework".

Outcome 2 (a): Effective and sustainable mechanisms in place for monitoring long-term SAP implementation.

Output 2.1: An expanded TMP which will include the use of Process Indicators, Stress Reduction Indicators and Environmental Status Indicators.

Activity 2.1*:* Establishing and supporting the operation of regional and national working groups for monitoring TMP implementation.

Activity 2.2: Enhancing the legal and regulatory framework for environmental monitoring, by taking into account relevant EU legislation and best international practice.

Activity 2.3: An assessment of required information needs of Regional and National basin management bodies. It is anticipated that activity will:

- involve adjustment of monitored parameters (to include persistent toxic substances) and other media;
- support identification and establishment of reference sites to be used as a basis for comparative assessment of anthropogenic loads received by monitored aquatic ecosystems.

Activity 2.4: The Regional Working Group on Monitoring will collect recommendations from the respective National Working Groups on issues dealing with the use of Process Indicators, Stress Reduction Indicators and Environmental Status Indicators. These will be passed on and incorporated into the recommendations for TDA/SAP revision as contemplated in Activity 4.11.

Outcome 2 (b): Relevant government bodies and other stakeholders better informed on effectiveness of SAP policies.

Output 2.2: A regional targeted transboundary monitoring program with information needs and end-users clearly identified.

Activity 2.5: Establishing and enhancing a common system for water quality and ecosystem status assessment by taking into account WFD approaches and a suite of common indicators and indices for assessing surface water quality and aquatic ecosystem status, to be in line with current EU practices and WFD recommendations.

Activity 2.6: Development of a methodological approach for assessing pollution loads associated with diffuse sources of water pollution based on approaches used in the neighbouring EU countries.

Activity 2.7: Preparation, planning and implementation of environmental monitoring training courses for pollution monitoring specialists, to draw on experience and training infrastructure available in various relevant organizations in EU countries.

Activity 2.8*:* Developing the QA/QC system. Organising and implementing inter-laboratory comparisons/proficiency tests at the regional level.

Activity 2.9: Establishing capacity for monitoring environmental emergencies caused by accidental pollution release; developing the conceptual design of an early warning system.

Output 2.3: Regular reporting procedures in place, including the interpretation of monitoring data to guide decision making and policy modification

Activity 2.10: Ensure proper and sustainable operations of Environmental Data Base developed in Phase 1 in order to provide adequate information to stakeholders. This will involve the preparation of an additional annual technical report (the TMP Yearbook), where special emphasis will be placed upon issues relating to the development and improvement of methodological framework and techniques for measurement, analysis, assessment, and prediction trends.

Component 3.

Harmonization of Environmental Legislation to that prevailing in the EU

Harmonization of Environmental Legislation to that prevailing in the EU foresees two strategic approaches:

A. Organizational, technical, informational support and scientific advice to the DBCs in the process of harmonisation national action plans (HNAPs) development and implementation

B. Establishment of a monitoring system for legislative convergence activities and related regional information exchange systems.

A. Organizational, technical, informational support and scientific advice to the DBCs in the process of HNAPs development and implementation

The Dnipro Countries will play the major role in implementing legislative improvements planned under the Project with regard to environmental legislation, including water and CP legislation. This will involve implementing the following activities:

- Assisting the Dnipro Countries with drafting strategies (concepts, plans, etc.,) for convergence of environmental legislation, to be approved at the governmental or sectoral level and securing funds required to finance HNAPs implementation;
- Assisting the Dnipro Countries with drafting laws and regulations to amend national legislation for incorporation of provisions of priority EU Directives;
- Facilitating implementation of ratified international documents (including the following relevant UNECE Conventions: the 1991 Convention on the Protection and Use of Transboundary Watercourses and International Lakes; the 1991 Convention on Environmental Impact Assessment in a Transboundary Context; the 1998 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters; and other relevant international agreements and protocols to them, once and when they have been ratified by the Dnipro Basin countries);

The Project will support this process by providing organizational, technical, informational support and scientific advice to the Dnipro Basin countries as set out in the SRF.

B. Establishment of a monitoring system for legislative convergence activities and a related international information exchange system

Given that the overall efficiency and effectiveness of legislative improvement process can be judged by the reliability of monitoring information, the Project will provide support to the Dnipro Countries in order to establish a monitoring system for legislative convergence activities and related international information exchange system. It is anticipated that these systems will form an important and integral element of national (sectoral) legislative convergence programmes.

The monitoring of a legislative convergence process is intended to comprise the following:

- Collecting up-to-date information and review of changes that take place in the national legislation;
- Evaluation of actual progress and level of convergence achieved in the national environmental legislation, to be documented and based on methods and techniques that are common European practice;
- Ensuring required coordination of efforts and actions taken by various legislative and executive authorities involved in the legislative convergence process, achieving better and clearer understanding on international requirements and scope of legislative convergence;

Reporting and communicating the results achieved to relevant executive and legislative authorities in the Dnipro Basin countries, international organizations and the public.

The specific objectives of this Component include:

(a) Strengthening regulatory and legal frameworks governing cleaner technologies (CT).
(b) Introducing harmonized environmental legislation in line with that prevailing in the EU.
(c) Improving monitoring procedures, strengthening regulatory and legal frameworks.

Outcome 3 (a): A better legislative enabling environment for CT investment and improved national and regional legislative frameworks for transboundary pollution reduction in the Dnipro River basin.

Output 3.1 Belarus and Ukraine begin the process of adapting their environmental legislation to an agreed set of EU norms focusing on six preselected EU directives.

Activity 3.1: The Project will support the completion of reviews of Harmonization reports completed in Phase 1. These are intended to identify inconsistencies between the above EU Directives and the national legislation of the respective Dnipro Basin countries with specific regard to the cleaner production sector and provide an analysis of existing gaps in the legal and institutional framework required to support the convergence process.

Activity 3.2: The Project will design and undertake a series of training courses to enhance the institutional capacity for implementing the harmonization progress. These courses will be targeted at government officials directly involved in the design and implementation of environmental legislation at all levels.

Activity 3.3: **A**s part of SAP implementation each DBC has commenced developing a Harmonization National Action Plan (HNAP). The Project will now support the development and implementation of a Monitoring Program on HNAP implementation.

Activity 3.4: Based on the approved Monitoring Program the Project will prepare two Annual Progress Reports which will be expected to include:

- a chronology of harmonization steps taken during the previous reporting period, commentaries on the effectiveness of the convergence strategies, identification of potential implementation problems and recommendations of the possible need to review existing priorities.

Activity 3.5: Initiating support for a broad information campaign aiming to overcome current barriers to information exchange, raise the awareness of legislative and executive authorities in order to enhance the decision-making process for legislative convergence issues, and provide information to the general public on these issues.

Activity 3.6: The Regional Working Group on Harmonization of Legislation will collect recommendations from the respective National Working Groups on issues dealing with the process of adapting their environmental legislation to an agreed set of EU norms focusing on the six preselected EU directives. These will be passed on and incorporated into the recommendations for TDA/SAP revision as contemplated in Activity 4.11.

Component 4.

To establish key institutional and management structures within the wider SAP implementation management bodies.

The main objective of this component is the establishment of key institutional and management structures within the wider SAP implementation management bodies.

There are two potential scenarios for achieving the objectives specified for this Component. These scenarios are described below and take into account major risks and assumptions.

Scenario 1. The Dnipro Basin countries support the implementation of the Project throughout the 2008–2011 terms and enable the relevant Working Group to vet the draft Dnipro Agreement at the national and regional level. The main outcome of this effort work will be the signing of the Agreement itself followed by the establishment of the IDBC and supporting regional management bodies. This scenario implies that the said Working Group will remain active until the IDBC and all its supporting bodies are established and become operational.

Scenario 2. The Dnipro Basin countries support the implementation of the Project throughout the 2008–2011 terms and enable the relevant Working Group to complete the draft Dnipro Agreement. However, the Dnipro Basin countries fail to sign the Agreement by the end of the Project term in 2011. Under this scenario, the Working Group will remain operational till the end of the Project, while the provision for funding of its activities will cease once the Agreement has been completed leaving only the matter of its actual signing.

Effective, integrated basin management can only be ensured through the cooperative efforts of the Dnipro Basin countries in implementing the SAP and their respective National Action Plans. This will require coordination and support by the various joint basin management bodies set up and maintained by the parties. In addition this will require a functioning transboundary monitoring programme designed to measure progress towards achieving specified SAP objectives, sustainable and reliable information exchange mechanisms, and a regular review process designed to update and revise the selected strategy if and where necessary.

The establishment of the above institutional management and cooperation structures in the Dnipro Basin will pave the way towards the implementation of specific measures designed to address the issue of industrial chemical pollution that was designated as the top priority transboundary issue issues in the Dnipro Basin TDA (2003).

Outcome 4 (a): Permanent and sustainable multi-country institutional (policy and executive) and participatory mechanisms established and operational for long-term integrated management of the Dnipro River basin.

Outputs 4.1: Adoption and ratification of the draft Dnipro Agreement on Cooperation in the Dnipro basin (moved here from Component #3).

Activity 4.1: Organizing public hearings and stakeholder meetings to discuss the draft Agreement which is intended to become the sole legal framework that enables the establishment of institutional structures for regional basin management.

Activity 4.2: Organizing the signing process for the Agreement including venue selection, date, invited participants, preparation of agenda with efforts to have the ceremony possibly coincide with other major regional events such as a periodic Ministerial Conference or NGO celebration of 'Dnipro Day'.

Outputs 4.2: An agreed timetable and regular meetings of management bodies and records of meetings publicly available;

Activity 4.3: Support the operation of a Regional Working Group (RWG) on sub-management bodies which will assist the Dnipro Basin Countries with finalization of the draft Agreement and the subsequent signing process. Once the Agreement has been signed, the RWG mandate will be expanded to provide assistance with the preparation of statutory documents required to launch the operations of the IDBC.

Activity 4.4: Assisting with the preparation of relevant statutory documents required to establish and sustain the operation of international basin management bodies. This will include:

- providing organizational/technical support and assistance in planning/convening the meetings of these bodies;
- developing proposals concerning the composition of the IDBC Secretariat, its headquarters location, budget and work plan.

Activity 4.5: Developing and establishing procedures designed to ensure the involvement of Public Representatives and distribution of information about activities of various institutional structures established to manage the Dnipro Basin.

Output 4.3: Confirmed and sustainable budgetary provisions for supporting the SAP management bodies;

Activity 4.6: Upon the creation of the IDBC the PMU will take on the functions and serve as an interim Basin Secretariat for the IDBC during the term of the Project. In preparation for the same the PMU will review the 'start-up' lessons learned from other commissions in the region such as the ICPDR and the Black Sea Commission.

Activity 4.7: Supporting the development and launch of the official web-page of the IDBC and ensure that it is fully aligned with and reflects the mission and functions of the IDBC and its supporting bodies.

Output 4.4: Stakeholder involvement expanded to include private sectors, specifically private industries and other local organizations in areas affected by SAP interventions;

Activity 4.8: Organizing and convening annual NGO Forums on an Annual Basis which will prepare recommendations regarding:

- The design and format of a Dnipro Day;
- Public consultation process for the draft Agreement;
- Public awareness activities.

Activity 4.9: Organizing and celebrating an annual Dnipro Day as a regional event. This event may be used to also convene a number of other activities, including, inter alia:

- The third meeting of the Dnipro Council (dedicated to the Dnipro Agreement and, possibly, the signing thereof).
- A Dnipro River-bank Cleanup Action in two riparian cities in the Dnipro Basin within Ukraine and Belarus to be held in conjunction with Dnipro Day.

Activity 4.10: Organizing and implementing educational and Dnipro awareness raising projects for school students on an annual basis.

Output 4.5: Revised and updated SAP and TDA, in response to impacts of SAP implementation projects, new challenges and modified environmental quality objectives, annual amendments as required.

Activity 4.11: The Regional Working Group on Institutional and Management Structures will compile and prepare a consolidated version of recommendations for a revised Dnipro TDA/SAP and will include the proposed changes submitted from other Working Groups as contemplated in Activities; 1.11; 2.4 and 3.6.

PROJECT INDICATORS, RISKS AND ASSUMPTIONS

The potential risk to achieving all project objectives are political instability, reflecting the frequent changes of government in Ukraine and an unlikely political shift in Belarus. However this risk has always been part of the political background to the Dnipro project and fortunately has not had a major impact on the attainment of project objectives. Russia's recent passive withdrawal from the PDF B/PIF and SAP endorsement is admittedly a set back. However the consequences to this development have been self-contained and nothing that has transpired since would prevent Russia from continuing with its overall cooperation in the Dnipro basin in the future.

The signing of the Ministerial Declaration approving the SAP in 2007 still governs the background situation leading up to Project implementation. At the present time Belarus and Ukraine have intensified their co-operation in basin issues and the SAP implementation activities currently underway are neither politically nor ideologically sensitive. As a result there does not appear to be any major risk of policy shifts which may result in a withdrawal from such collateral objectives as developing a transboundary monitoring program, harmonization of legislation or the long range goal of establishing an IDBC for the Dnipro River.

However a narrower and more unpredictable risk lies in the effective participation of select industries in the anticipated pilot/demo projects. Since the planned industrial participants will all be commercial entities from the private sector the exigencies of economics might impact on the will of management to see their respective participation to its effective conclusion. As a result the Project will have to pay particular attention to issues of demonstrated managerial commitment, financial stability and focused corporate objectives such as the desire to attain ISO 14,000 standards. Fortunately the number of potential candidates incorporating the above attributes is continuously increasing.

The table below provides a summary of project risks as described and discussed in the Risks and Assumptions Section of the SRF. Generally, all potential risks that may pose threat to the project can be grouped into the following three categories:

1. Risks that may undermine the availability of required institutional support and managerial efficiency;
2. Risks that may affect the sustainability of financial support provided for the project activities from the national sources and efficiency/adequacy of stakeholder involvement in the basin management process;
3. Risks that may undermine the ability to produce planned project deliverables and outputs.

The Category 1 risks are considered to be minor to moderate, being largely dependant on the specific developments taking place in each Dnipro Basin country at any given time. These risks are primarily related to the level of political stability in each country and the respective implications this may have for the environmental sector. It is anticipated that the requirement that water resources be managed on new river basin principles and the anticipated establishment of regional management structures will all serve to minimize these risks.

The Category 2 risks are primarily related to the ability of each Dnipro Basin country to ensure sustainable financing of project activities that are considered to be crucial to the Project's success

Table 3. Risks assessment and scoring

№	Risk	Rating[6]	Abatement Measure
1	2	3	4
		A. Risks in institutional and capacity process	
A1	Environmental policies adopted by the DBCs[7] will remain unchanged	L	Despite Ukraine's volatile political landscape, its environmental sector has been relatively stable. This can be illustrated by a number of documents that have undergone a successful vetting process in the Cabinet of Ministers while it has changed hands between opposing political factions. By comparison Belarus is much more stable and predictable in all respects, including its political climate and environmental policy.
A2	DBCs will not commit to manage their shared water resources according to basin principles	L	The DBCs are currently lacking real mechanisms and arrangements, both legal and institutional, for managing their water resources on a river basin basis and have now come to the stage where they feel the need for fundamental change in this area. This need for change will be actively supported by UNDP-GEF and EU through their technical assistance projects[8].
A3	SAP management bodies are not established	M	The need for relevant international management structures in the Dnipro Basin is urgent and and the Dnipro Basin Agreement will eventually be signed. The (M) assumption risk refers to the unlikely situation where the DBCs will not sign the Agreement during the term of the Project, 2008 - 11.
A4	DBCs don't provide support to implement new CP initiatives	L-M	This risk is considered to be higher in Belarus where industrial enterprises are notionally privatized and rely on the potential availability of financial support from an existing state program. The risk is such that failure to qualify for this support will not stimulate industrial managers to look elsewhere (private sector) as there are few if any incentives for them to do so. It is expected that this risk will diminish in the future as real privatization goes ahead to bring greater economic independence as is the case in Ukraine.
A5	DBCs don't continue to see value of TDA/SAP revisions as an effective basin management tool	L	Considering the planned establishment of international management bodies in the Dnipro Basin, this will lead to the development of a Basin Management Plan which will replace the need for TDA and SAP tools in future activities.
		B. Risks of national unsustainable financing and poor stakeholders involvement	
B1	DBCs will not develop, approve, finance and implement their legislative harmonization strategies	M	Despite repeated declared intentions to join the EU, Ukraine has made little progress in terms of harmonizing its environmental legislation. The Project is expected to catalyse this process and in Belarus as well where the accent will be placed on convergence with international norms.
B2	DBCs will not take adequate measures to reduce pollution from diffuse sources and PTP discharges from large industrial enterprises	L-M	Both Belarus and Ukraine lack appropriate tools and methodologies for assessing diffuse sources of pollution, and this is the reason why this risk has been classified as 'medium' (M). In order to abate this risk, the Project involves the preparation of a methodology for assessing such pollution - Component 2. As regards the existing and future pollution control provisions for large industries, they are considered to be relatively adequate and effective, therefore the associated risk is considered to be low.
B3	DBCs will not provide appropriate financial support mechanisms and administrative incentives to CP implementation	L-M	The level of this risk is considered to be higher in Belarus where industrial enterprises have a stronger reliance on state support. It is expected that this risk will diminish in the future as real privatization goes ahead to bring greater economic independence as is the case in Ukraine.

[6] H – high, M – medium, L – low.
[7] Dnipro Basin countries
[8] New TACIS project on "Water governance in EECCA"

1	2	3	4
B4	Funding will not be provided by the DBCs to support operations of SAP management bodies	L	This risk is considered to be low since the Dnipro Basin countries have a broad range of tools and mechanisms suited to facilitate the operation of international management bodies, including earmarked state programmes, state environmental funds, and budgets of relevant ministries/agencies.
B5	DBCs will not see merit in broader stakeholder involvement and won't allocate funds to support advisory basin structures.	M	The perceived medium (M) likelihood of this risk refers to the situation where proposed advisory bodies may not be able to continue their work after the end of the project. Political awareness and acceptance of this issue is still evolving in both DB countries. The Project will provide financial support only for the initial (inception) meetings of the IDBC and NGO Forum, with all subsequent meetings of these bodies to be financed from national sources and the PMU providing only organizational/technical support.
C. Risks in moving from Outputs to Outcomes			
C1	DBCs will not provide appropriate financial support mechanisms and administrative incentives to industries participating in CP pilot projects	L-M	This risk is considered to be higher in the Belarus, where a state investment project is required to be approved and launched for each pilot enterprise in order to enable the use of low-interest credit resources. As regards Ukraine, this risk is considered to be significantly lower due to the availability of various mechanisms designed to reduce the cost of commercial loans. Generally, a pilot project with a larger governmental contribution to the project budget is considered to carry a greater risk, and vice versa.
C2	Non-transparent contractual relationships between Vodokanals and industries impede access to reliable economic data	H	This risk is estimated as high since Vodokanals enjoy a monopolistic position in the operation of water supply and sanitation services, and have few incentives to provide greater transparency in their relationships with customers. To mitigate this risk the Project will stress win-win scenarios and the active involvement of local executive authorities[9] and Vodokanals in training activities, meetings, workshops etc.
C3	Vodokanals driven by their monopolistic corporate interests are reluctant to accept change in existing regulatory arrangements or development of local monitoring capacity	M	The development of local monitoring capacity will involve the external accreditation procedures for laboratories operating at the industrial sites and their QA/QC systems. The accredited status of their analytical laboratories will enable the enterprises to use the arbitration court system more effectively in order to assert their interests.
C4	Institutional inconsistencies and overlaps caused by unclear allocation of tasks/responsibilities among numerous subjects of monitoring	L-H	This risk is considered to be low in the Belarus, where all monitoring functions and responsibilities are concentrated within the system of the Ministry of Environment. The situation is different in Ukraine where the introduction of an integrated approach to managing water resources on river basin principles is a necessary prerequisite to abating this risk.
C5	DBCs will not approve and finance the TMP at the national level.	L	This risk is considered to be low in both DBCs. In fact, all required budget allocations have already been planned/approved as part of the state budget planning process, and the national governments will only be required to meet all the relevant expenditure milestones.
C6	Currently planned interventions will not bring effective results due to adverse effects of Climate Change	L	The Full-size project is sufficiently technical in nature that improved qualitative changes in waste water discharges will be identifiable regardless of any climate changes at the regional or global level.

[9] Local executive authorities supervise the performance of Vodokanals whose assets are typically held in municipal ownership.

and/or relevant national action plans, strategies, concepts etc, ensuing from country's international obligations. All these risks are considered to be minor to moderate, and it is anticipated that they would be reduced even further as the socio-economic situation improves in the Dnipro Basin countries. It is also expected that the project will help abate these risks by supporting the review and development of recommended options designed to ensure that all planned environmental improvements, including CP initiatives, are financed in a sustainable manner.

The Category 3 risks that have the potential to directly affect the success of the Project have a range from minor to moderate and high. The risks considered to be high stem from the monopolistic position of the Vodokanals, both in Ukraine and Belarus. In Ukraine these are exacerbated by inherent institutional deficiencies and by weak coordination among the relevant ministries and agencies dealing with water management responsibilities. The Project contains a set of activities designed to address such issues of coordination and jurisdictional overlap. Ultimately Ukraine's fragmented approach to basin management can only be addressed by renewed political will to adopt a new legal framework for river basin management. This happens to be a priority focus areas for UNDP-GEF and the new EU "Water governance in the Western EECCA" project, both of which are making a significant commitment to this region.

INCREMENTAL REASONING AND EXPECTED GLOBAL, NATIONAL AND LOCAL BENEFITS

The outcomes of the Project will be achieved in parallel with globally accepted principles. Sustainable development serves as an overarching principle at global and regional levels, while the activities guided by the principles of integrated water basin management are specific approaches which support sustainable development at the national and local level.

Global and Regional Level. Whereas there are existing bilateral agreements between the DBCs on transboundary waters there is no specific agreement dealing exclusively with the Dnipro basin. As a result the signing of the anticipated Dnipro Basin Agreement would pioneer the establishment of a common legal mechanism and framework for international cooperation in managing and protecting the Dnipro Basin. This Agreement would also provide the legal basis for creating a basin management institution in the form of an IDBC. The IDBC would evolve towards a fundamentally new regime, underpinned by successful practical experience of western countries in managing their water resources on a river basin basis. Derivative basin management bodies would work to ensure that the basin-wide environmental rehabilitation strategy is implemented in a consistent and coordinated manner, with the relevant national authorities being responsible for implementing specific planned actions at the national level.

Partnerships among agencies will be pursued to assist them in working together more coherently within comparative advantages consistent with country priorities and the economic reforms currently being undertaken. The involvement and participation of key project partners in the provision of technical assistance is anticipated to include such organizations and agencies as UNDP, the EU Water Governance Program, the Bavarian State Ministry of the Environment, Public Health and Consumer Protection, UNOPS and Coca-Cola. UNEP may also play an important role in the project in order to assist the negotiation of the Dnipro Agreement. The specific role of UNEP and its co-financing will be assessed during the inception phase of the project. Nonetheless the collaboration among the committed agencies will contribute to increased development effectiveness and synergies among GEF focal areas and it will be essential to continually mobilize additional financing to scale-up GEF work now and in the future.

It is anticipated that the environmental legislation of the Dnipro Basin countries will be improved significantly by achieving and maintaining the internal coordination and consistency of their respective national legislation as it is brought in line with international norms and EU standards. The monitoring capacity will be enhanced in each of the Dnipro Basin countries to monitor both SAP

implementation and water resources, thereby ensuring timely, transparent and interactive exchange of relevant information between the countries which will share this information with the international community.

On a global perspective the regional outcomes will be far-reaching. As a major river system in Eastern Europe, the environmental degradation of the Dnipro basin has ramifications not only for the inhabitants of Belarus and Ukraine but for the coastal countries of the Black Sea basin as well. Both the Dnipro and Black Sea basins are political, environmental, biodiversity and socio-economic hotspots. Accordingly, the success of the Project is anticipated to provide a number of significant global ramifications all of which will contribute to a more secure region by:

a. reducing threats to national and regional security, brought about by competition over limited resources, which result in transboundary political, social, cultural, economic and environmental risks that could have negative consequences beyond the region;
b. alleviating the pressures of poverty in the region, which compound the threats to security, through conservation and improved management of basin resources at the community level, while contributing to the global targets of UN MDGs especially poverty alleviation, and accessibility to cleaner drinking water and waste water treatment services;
c. increasing government commitments to reducing PTS and nutrients and to waste water treatment plants and river systems, through the promotion and replication of pilot projects, cleaner production technologies, legislative reform, financing mechanisms, economic instruments and innovative policies in general;
d. changing the attitude and behavior of political officials, decision makers and senior managers in the public and private sectors, by transferring a portfolio of successful pilot projects and lessons learned, involving national and local governments, the industrial sector, international agencies and organizations, donors, scientific institutions, NGOs and community groups in managing the Dnipro river basin and its resources in a sustainable manner.

In summary the above UNDP GEF initiative constitutes a valuable intervention at the regional level. Already the Project has elicited close to 6 million dollars in co-financing commitments from the Dnipro Basin countries. This in itself represents a new milestone in their history of environmental investments. A review of budgetary expenditures undertaken in the Dnipro Countries indicates that Belarus annually spends over USD 10 million for various environmental actions in the Dnipro basin, whereas Ukraine's annual environmental expenditures released through various ministries and agencies are over USD 45 million. However the common characteristic of these expenditures shows that they are fragmented and lack a systemic approach to dealing with the most pressing priorities. Indeed the Dnipro SAP was the first ever strategic document that attempted to provide such policy guidelines in a systemic manner. This is why further support for SAP interventions at the regional level is considered to be so valuable at this important juncture in time.

An over arcing issue faced by the Project is the geo-political situation in the region. Since the collapse of the USSR seventeen years ago the GEF has been active in promoting regional cooperation between the successor states for at least ten of those past years. No other organization placed as much emphasis on regional issues as did GEF, since it was always more expedient to finance technical assistance programs at the national level which are invariably more easy to implement. For GEF this continues to be 'a road less traveled' as few organizations are willing to invest the time and resources to risk a regional approach of technical assistance and especially so in the former FSU.

Belarus and Ukraine have directly benefited from these efforts as the historical legacy of the region espoused a much more hierarchical approach to resolving problem issues. The inclusivity and equality stressed in the GEF approach has enabled the Dnipro countries to develop a regional perspective on a shared water basin where previously none existed. They have also benefited from the examples of other GEF regional projects which stress the cooperative mandate for resolving

transboundary issues. The current project comes at a critical time as the evolving relations between the Dnipro countries are increasingly overshadowed by geopolitical interests that emanate from further abroad. By focusing on the neutrality of water issues and the good will of past successes the GEF offers a leveraged opportunity to raise regional cooperation in the Dnipro basin to a higher level. For all of the above considerations it would not be an overstatement to suggest that such support continues to be as vital as it is necessary.

National Level. By introducing a basin management regime, the Dnipro basin countries will set a precedent that will bring them further towards implementing the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 1992). National environmental strategies will be aligned to achieve common basin-wide objectives. National legislation of the Dnipro Basin countries will be enhanced through harmonization with EU and international standards to ensure a greater level of conversion and consistency between the countries.

The Dnipro basin countries will benefit from new experience and knowledge in identifying and implementing pilot projects designed to introduce cleaner production methods and also provide sustainable funding arrangements for environmental improvements at the industrial level. The current focus of major IFOs on heavy industry leaves the small and medium size industry sector outside the range of major donor and banking attention. The successful implementation of pilot projects at the small and medium size level will have a more wide ranging impact as these industries predominate in the Dnipro basin.

By using their strengthened capacity for monitoring legislative changes, the Dnipro Basin countries will be able to ensure that all relevant stakeholders have access to environmental information and experience, and adequate procedures are in place to make sure that this information is provided in a timely, transparent and interactive manner.

The Dnipro basin countries will also benefit from institutional strengthening and capacity building, especially where it comes to developing and enhancing environmental legislation. National specialists will receive training and improve their professional skills, their capability for managing various activities and projects, both business and environment related, will be thereby improved considerably.

The public and NGOs will benefit from improved awareness and participation in decision making on various basin management issues, and will be able to enjoy communication and information exchange during various meetings and forums. This is especially vital for the Dnipro basin countries as civil society and public participation are still very much an emerging social phenomenon in the countries of the former Soviet Union (FSU).

Local Level. The benefits for local authorities would stem from improved awareness and active involvement in basin management processes through participation in meetings, workshops, conferences and training programmes. In the future they will be able to make more informed and conscious interventions in the pollution control and regulation process and, by being closely involved in the implementation of cleaner production projects, are expected to provide invaluable knowledge for subsequent dissemination and replication. The additional involvement and participation of local authorities and communities in public awareness activities will help generate understanding and recognition for local environmental issues.

Vodokanals will be able to handle their environmental problems more efficiently and effectively as a result of reduced pollution levels and industrial effluents received by them from their industrial customers, while the latter will be able to enjoy cost savings stemming from reduced pollution fees and non-compliance fines.

Local governance bodies, executive authorities and communities will be kept informed about the progress and success of legislative convergence efforts and this information will be provided to them on a regular basis. In addition they will benefit from first-hand experience as they see the benefits and

advantages of CP methods introduced at their local industrial enterprises. This in turn is expected to trigger more environmentally friendly policies to be initiated at the local level.

And finally, local benefits will be significantly enhanced at the community and family level as a result of an increase of sustainable protection and conservation of livelihoods and critical water supply resources. The expected improvements in drinking-water quality will translate into better human health and improved environmental safety and living standards for the Dnipro Basin population as a whole.

Expected Benefits from the Implementation of CP Projects:

Environmental:

- Gradual and perceivable reduction in pollution loads generated in the Dnipro Basin by small and medium sized industries and Vodokanals;
- Improved environmental performance and safety of industrial processes, and reduced risks to human health;
- Sustainable, prudent and careful management of natural resources, and their reproduction;
- Support and contribution to the implementation of a comprehensive environmental strategy designed to prevent / minimize pollution from industries.

Economic:

- Rationalized and improved process performance at the selected pilot industries, improved resource-efficiency (including water resources as a matter of priority), reduced environmental pollution, integration of environmental management into overall corporate management system, improved profitability of selected small enterprises;

Institutional:

- Proper and adequate monitoring of industrial discharges by Vodokanals, combined with appropriate and effective self-monitoring and control of effluent arising at the enterprise level;

Educational:

- Governmental authorities, industrial enterprises and public in Belarus and Ukraine are aware of all benefits and advantages of CP practices, potential funding sources for CP initiatives, and CP implementation experience available in the Dnipro Basin;
- Local authorities are aware of their role and responsibilities with regard to the control of industrial chemical pollution, and NGOs are informed about potential opportunities for their involvement in the pollution control.

COUNTRY OWNERSHIP: COUNTRY ELIGIBILITY AND COUNTRY DRIVENNESS

Country Eligibility.

Both participating countries are currently eligible under para. 9(b) of the GEF Instrument. They also have UNDP Country Offices and existing GEF portfolios. According to UNDP Belarus and Ukraine Country Programmes (2006-2010), UNDP, as the implementing agency for GEF, will pursue projects in the environment and energy sectors including the integration into national governance ecosystem services, protected areas, promotion of clean technologies, and other commitments under the multilateral environmental agreements. Support will be provided to introduce institutional changes for transparent and sustainable management of natural and biodiversity resources. Mitigation of climate change, conservation of globally significant biodiversity, and management of land degradation and water resources should also receive support.

The role of UNDP-GEF in promoting and encouraging active public involvement in the basin management process is extremely important because this is considered as pre-requisite to establishing full and continuous ownership of project outputs in the beneficiary countries. In this regard the Project has developed a suite of activities designed to provide proper legal and institutional arrangements for ensuring that adequate focus and emphasis are placed upon ownership, eligibility and drivenness.

At the international level Belarus and Ukraine are both parties to the UNECE Helsinki Convention (1992) and the Aarhus Convention (1998)**.** Pursuant to the former, the Dnipro Basin countries have adopted bilateral agreements for the protection and management of transboundary water bodies and are now aiming to raise their cooperation to a higher level by implementing RBM principles at a regional level. In addition the Dnipro Basin countries being active members of the "Environment for Europe" process, have committed to take steps identified in the Agenda 21 (Rio de Janeiro, 1992), Millennium Declaration and Plan of Implementation of the World Summit on Sustainable Development (Johannesburg, 2002).

Country Drivenness.

The countries have already demonstrated a significant level of ownership and custodial responsibility for the Dnipro river basin when they jointly developed a SAP as well as National Action Programs to carry out interventions to manage pollution and other national and transboundary issues.

Both countries have taken on additional activities in an effort to prepare a permissive legal environment which will enable future cooperation in the Dnipro basin. The result of these efforts, supported by GEF, has brought the countries significantly closer to the creation of a basin commission as evidenced by the signing of two Ministerial declarations in 2003 and 2007. More significant is the logical extension of these Declarations leading to the preparation of the draft Dnipro Agreement on co-operation currently being vetted by the governments of Belarus and Ukraine. This has been an exclusive Dnipro Countries initiative which GEF has supported from its inception. (The draft agreement sets out the framework and required country financial commitments for the creation of the IDBC).

National Commitment.

The Project will be implemented in Belarus and Ukraine through the Ministry of Natural Resources and Environmental Protection of the Belarus Republic, and the Ministry of Environmental Protection of Ukraine together with such agencies as may be recommended by the said ministries in their respective countries. The named ministries hold ultimate responsibility for the provision of legal, institutional and financial support required to implement the Project during its projected term.

For operational purposes each Dnipro Basin country has set up an Inter-sectoral National Project Management Committee (NPMC) composed of representatives from the environment ministry, water management/protection agencies, leading experts specializing in environmental and water monitoring issues and NGO representatives. NPMC takes ultimate responsibility for project implementation on its territory and coordinates the implementation of the project work plan with the PMU.

Each NPMC will also ensure the broad participation of stakeholder groups in project implementation by setting up and supporting national and regional working groups on Cleaner production, Transboundary Monitoring, Harmonization of Legislation, and Institutional Management. These working groups will be the main instrument for implementation and delivery of outputs identified in the Project Document at both the national and the regional level.

The above preparations have taken place against the background of important legislative initiatives which lend additional credence to the idea of national commitment. The more important initiatives include:

Ukraine. In 2007, the Cabinet of Ministers of Ukraine passed a resolution approving a new Concept of the National Environmental Policy of Ukraine[10]. As such, the document replaces an earlier policy document dating back to 1992[11]. With this resolution, the Cabinet has instructed all relevant ministries and agencies to develop a new Environmental Policy, Strategy and Action Plan[12] to the year 2020. It should be emphasized that the Concept, as a core policy document, is fully in line with the priority objectives of the Project. Important elements of the Concept include; the introduction and promotion of cleaner production methods at the sectoral level, adoption and application of the RBM approach to water resource management and development of environmental monitoring and harmonization of national environmental legislation with relevant EU laws. These priorities have become even more relevant given Ukraine's recent WTO accession and EU aspirations.

Once the above named Concept become government policy, the state budget for the support for the Ukraine National Programme will be resumed in earnest. It is important to note that this policy revision is taking into account the key objectives and tasks identified in the Dnipro Basin SAP.

Belarus: The National Sustainable Development Strategy to the year 2020 remains the main document that defines the country's environmental policy. The Belarus National Programme is a comprehensive derivative of this strategy and provides a flexible mechanism for implementing it. Both documents are also fully consistent with the development objectives identified in the Project. Moreover, appropriate adjustments will be made in the NAP for the period 2009-2010 in order to incorporate the commitment made by Belarus for co-financing of the Project.

Ownership of the process is further demonstrated by the fact that Belarus has unilaterally approved and is now implementing the Dnipro Basin TMP and other key SAP policies developed in the first phase of the Dnipro Program.

Millennium Development Goals (MDGs): At the national level the Project will assist the Dnipro Countries in meeting their commitments to the MDGs, particularly *Ensuring environmental sustainability*.

Ukraine signed the UN "Millennium Declaration" in September 2000 at the Millennium Summit in New York. By signing the Declaration Ukraine took on the responsibility to achieve its MDGs by 2015 in six key areas:

- ensuring poverty reduction,
- quality life-long education,
- *sustainable environmental development*,
- improving maternal health and reducing child mortality,
- reducing and slowing down the spread of HIV/AIDS and tuberculosis and,
- promoting gender equality.

The MDGs for Ukraine represent 6 goals and 13 specific tasks for a long-term perspective adapted for the peculiarities of the country's national development. In order to achieve the designated goals it is necessary undertake significant economic reform and implement economic policies that will benefit all Ukrainian society.

[10] "Concept of National Environmental Policy to 2020" recently adopted by Ukraine (approved by a Resolution of the Cabinet of Ministers of Ukraine on October 17, 2007 - No. 880)

[11] The Decree of the Verkhovna Rada (Parliament) of Ukraine from 05.03.1998, No 188/98-BP "On the main directions of the state policy of Ukraine in the fields of environmental protection, use of natural resources and environmental safety"

[12] Ukrainian Cabinet of Ministers Decree from 17.10.2007, No 880-p has obliged the Ministry of Environmental Protection to develop the Strategy of National Environmental Policy of Ukraine for the period till 2020.

In ***Belarus*** the Millennium Development Goals targeted eight areas:

- Eradicate extreme poverty and hunger.
- Achieve universal primary education.
- Promote gender equality and empower women.
- Reduce child mortality.
- Improve maternal health.
- Combat HIV/AIDS, malaria and other disasters.
- Ensure environmental sustainability.
- Develop a global partnership for development.

Accordingly *sustainable environmental development* became a priority focus area in the respective MDGs adopted by both countries.

At the present time Belarus is not linked to the UNDAF, however Ukraine is a full participant and therefore the Project objectives have been designed to reflect this linkage and provide support and assistance to Ukraine as it moves toward developing a sound democracy, full protection of human rights, and a strong economy. The United Nations agencies in Ukraine, together with the Ukrainian Government, and representatives of other international and local organizations, civil society and the private sector identified 4 areas in which the UN will assist Ukraine for the current UNDAF 2006-10. One of them is *institutional reforms* - in this area the United Nations will provide support and technical assistance to the Ukrainian Government and its people to:

- develop and implement policies, regulations and laws which include everybody, and do not discriminate on the basis of gender, age or another quality;
- strengthen those institutions which safeguard and advance human rights;
- support government operations that benefit the people and are transparent;
- increase people's access to government institutions and public services.

This area of UN involvement fully complements Project activities designed to support the creation of the IDBC and its constituent basin management bodies largely composed of NGO representatives.

SUSTAINABILITY

Long range progress in reducing chemical industrial pollution in the Dnipro Basin will be achieved through the implementation of a systemic approach involving a broad range of legal, institutional and awareness raising measures designed to support and promote RBM and a gradual and shift towards cleaner production culture.

The Project represents an important niche in this process and will support sustainability at several levels including:

- Strategic sustainability;
- Institutional sustainability;
- Financial sustainability;
- Social sustainability;

Strategic sustainability has already been greatly enhanced with the signing of the Joint Ministerial Declaration Cooperation (2007) which approved the Dnipro SAP. The document effectively demonstrates that the Dnipro Basin countries remain committed to their long range environmental objectives and are willing to begin the process of SAP implementation.

Linkages with the SAP and NAPs will form a crucial element of the Project's sustainability strategy. Moreover the NAP implementations will be seen as indicators of real commitment by the Dnipro Countries as they require constant updating and an adaptive management approach to deal with the priority issues identified in the SAP.

A more lasting indicator of sustainability will be Dnipro Countries commitment to financing successive versions of the TDA and revising the SAP on a regular periodic basis. In this respect the GEF methodology and lessons learned from Dnipro Program Phase 1 provide sufficient institutionalization at the executive level, requiring only the political will to implement the same.

The Project will continue to monitor Dnipro Countries commitment to sustainability by providing additional program support consisting of the latest in GEF TDA/SAP methodology, stopping short of financing any TDA/SAP preparation activities. Instead the Project will focus on pilot projects involving small industries discharging untreated or partially treated waste into municipal systems. In many cases these industries are the focus of privatization and as criteria for investment, the Project will review the technical and financial sustainability of these interventions. This in turn will be crucial for project replicability as well.

Institutional Sustainability: The preliminary investments in developing the SAP and TDA, referred to above, were not designed as sustainable planning processes; however the subsequent management of the SAP and the interventions implemented under the SAP must be institutionally and financially sustainable. Accordingly the Project will look at the proposed SAP management structures and recommend low cost management systems, including a limited secretariat and targeted meetings as an initial start-up of the IDBC. The draft Dnipro Agreement commits the participating countries to "Convene", "Establish", and to "Provide the legal support to and ensure the sustainable operation" of the Commission, the Council, the Secretariat and the NGO Forum.

The proposed scope of Project activities takes account of capabilities and recommendations of legislative and executive authorities involved. The Project will focus on providing adequate and appropriate institutional arrangements designed to ensure the efficiency of project activities associated with the introduction of cleaner production methods, improvement of legislation, and establishment of monitoring system. In order to achieve this, the Programme's Steering Committee (SC) and NPMCs will provide overall guidance and coordination, and national and international working groups will be established to comprise the representatives of all relevant stakeholders. Furthermore, the Project will provide training for key experts, support and promote information exchange and regular reporting on the project progress and outcomes to the central legislative and executive authorities.

The anticipated signing of the Dnipro Agreement, initially between the Governments of Belarus and Ukraine and the establishment of proposed basin management structures are considered to be crucial to ensuring the long-term sustainability of the project and its institutional arrangements. In time it is expected that Russia will accede to the Dnipro Agreement as well. This would be consistent with Russia's recent adoption of changes to its Water Code which specifically endorses RBM and IWRM principles.

Financial Sustainability: The Dnipro Countries continue to be benefit from the attention of various donor agencies which have traditionally supported environmental intervention activities in the Dnipro Basin. The WB, EBRD, TACIS, together with many smaller agencies, continue to maintain an environmental dimension in their respective agency strategies and attempt to engage the Dnipro Countries in various projects, many of which complement SAP priorities. However these donor interventions are inherently fragmented and lack a coherent approach that could maximize and leverage their effectiveness. In such an environment the Dnipro Countries are forced to adjust to the project cycles of the respective donor agencies and assign scarce personnel resources to actively participate in the various projects that come their way.

Accordingly, the main indicator of financial sustainability won't be the amount of continuing donor interest in environmental activities but rather the degree to which the Dnipro Countries countries themselves undertake the financing of new SAP management bodies and SAP implementation activities. This too will be a Project objective as the anticipated creation of an IDBC will require

exclusive financing from the Dnipro Countries and will serve as the best long term indicator of country ownership of the RBM process.

Social Sustainability: Broader involvement of stakeholders in as many aspects of the Project as possible is an important factor of overall project success. The Project will especially promote broad stakeholder involvement in the preparation of legislative changes as this sector will have the most widespread and long lasting impact on residents of the Dnipro basin. Basin stakeholders were consulted throughout the PDF B/PIF process and laid the groundwork for active participation in the Project itself. More information on stakeholder participation can be found in the Stakeholder Involvement Plan, Section IV, Part IV.

REPLICABILITY

Introduction. An important factor contributing significantly to the project's sustainability is its high replication potential, especially as the lessons learned are particularly relevant to all the FSU countries, many of which have the same heritage of water management, environmental legislation and similar problems of environmental degradation.

A notable aspect of the Project is that it has the potential to pioneer the introduction of new legal and institutional mechanisms in the FSU region. As an example, the expected signing of the Dnipro Agreement, which pertains to a specific river basin, would represent not only an outstanding achievement for the Dnipro Countries but a precedent for the FSU as well.

In addition the focus of the Project on waste management and cleaner production processes reflects an economic and industrial development that is similar throughout much of the FSU. Throughout the region there is still a significant lack of practical demonstrations that can convincingly show the material benefits of complying with environmental norms while still being able to retain a competitive position in the marketplace. At the present time, where production and manufacturing has been in multi-year decline, there is evidence of an emerging generation of younger, savvy industrial managers who express a long term view of their businesses and are eager to gain a competitive advantage without sacrificing environmental norms.

The Project would offer them the opportunity to learn from those enterprises participating in the introduction of cleaner technologies and will demonstrate how this translates into both short and long term benefits in an increasingly global economy. In addition, WTO accession and separate trade agreements with the EU remain powerful regional incentives that will help accompany this process. When viewed in their entirety, the pilot projects initiated under the Project will provide models that could be replicated in the immediate Dnipro Countries region and in the FSU as a whole.

Such developments will, in turn, help relieve pressure on the state Vodokanals and provide them with the necessary breathing space to find their future niche in this irreversible process. In this respect, successful pilot/demo projects can serve as a catalyst for rethinking the format and structure of the existing relationships governing the municipalities, industry and the Vodokanals themselves. All of this forms part of the larger picture of administrative reform, growth of local self-government and the gradual demise of central control.

Methodology. The replication of the project experience is an integral element of the project strategy, and specific options and actions are identified in each project component. To maximize its replication potential, the Project will put into operation an arrangement founded on international and multi-sectoral partnerships. As a partnership, the regional arrangement will be outcome oriented, meaning that the partnerships are formed to achieve specific objectives under the Project umbrella.

Such an arrangement is designed to facilitate cooperation and collaboration among outcome-oriented Partners. These are achievable through such measures as information and knowledge-sharing,

capacity development, demonstration of innovative approaches and new technologies, scaling up and replication of good practices.

To this end, the sections below provide a description of the main outcome-oriented Partners that are considered to represent the key replication targets under the project.

Component 1. In order to maximize the replication potential, the project willsupport and promote the dissemination of information on the status and progress of pilot investment projects which will aim to achieve a 60-70% reduction in pollution load and low-cost actions aiming to reduce the pollution load by a further 20-30%.

Industrial enterprises will constitute the main target audience interested in replicating the improvements achieved through pilot projects and low-cost actions. They will be informed about the following factors:

- Available financial mechanisms designed to support the implementation of environmental measures;
- Various aspects and elements of institutional support for the CP introduction process;
- Real and practical experience in introducing CP methods; and
- Environmental, administrative and economic benefits that an enterprise might be able to generate for itself by initiating the introduction of CP methods.

Considering that the Dnipro Basin countries currently lack information resources relating to the introduction of CP methods and associated benefits/advantages for industrial enterprises, the latter are considered to represent the main replication target.

Component 2. The responsibility for implementing the Transboundary Monitoring Programme (TMP), to be updated and launched as part of the Project, will rest on the Dnipro Basin countries. It is anticipated that the environmental ministries in Ukraine and Belarus will issue special ministerial orders in order to integrate the TMP into the existing national environmental management systems (similar to the TMP developed as part of the Dnipro Program Phase 1) which has already provided the basis for the transboundary monitoring programme being implemented in Belarus.

The issue of replicability is particularly important for Ukraine where quality and reliability of environmental monitoring data is severely impaired by serious inconsistencies and a lack of coordinated reporting efforts among the numerous agencies involved in monitoring. The adoption of integral biological and hydrobiological indicators as part of the TMP, and the application of indicator sets proposed by GEF will all help expand the monitoring framework to be better suited to meet the needs of the RBM process. It is anticipated that the use of this improved monitoring framework will help achieve greater clarity and consistency in delineating roles and responsibilities among the various executive authorities involved in environmental monitoring in general and transboundary monitoring in the Dnipro Basin in particular.

Component 3. One of the important measures designed to improve and promote the replication and dissemination of outcomes in harmonization of legislation is to support the operation of a regional monitoring and information exchange system at the regional level, which, once successfully implemented, will constitute a unique precedent for a water basin of this scale in the FSU.

The governments of Belarus and Ukraine represent the main replication targets and outcome-oriented partners since it is anticipated they will adopt a programme of legislative change/harmonization actions along with monitoring arrangements for such introduction at the national level. The Project will support a broad information campaign aiming to overcome current barriers to information exchange, raise the awareness of legislative and executive authorities in order to enhance the decision-making process for legislative convergence issues, and provide information to the general public on these issues.

Component 4. The project will support the development of basin management structures designed to manage water resources in the Dnipro Basin by providing access to proven experiences and practices available in the European countries. This will involve launching the IDBC, the DBAC, and ensuring the involvement of NGOs and the broader public. National governments, represented by their environmental ministries, will undertake to ensure the long term sustainability of basin newly established management structures and the replication of relevant experience.

The following actions are planned to be taken to facilitate the dissemination/replication of knowledge and experience as part of the four project components:

- The development and introduction of methodological guidelines designed to support the transition towards cleaner production methods, implementation of water monitoring programmes, and development of relevant legislative framework, to include appropriate case study examples;
- The dissemination of information about the IDBC and other basin management bodies and their activities;
- The organization of conferences, workshops, meetings and lectures for various stakeholders in order to demonstrate and present successful examples and methods;
- The establishment and maintenance of a methodological data base, to operate at the basin-wide and national level, and to comprise relevant methodological documents, both national and international;
- The publication of relevant project reports and other materials on the official websites of the project, IDBC and environmental ministries of the Dnipro Basin countries;
- The preparation, publication and dissemination of relevant presentation materials and key project deliverables etc.

As part of the PDF B/PIF preparation phase the project's website[13] has been updated and modified in line with the general standards adopted under the IW:LEARN[14]- GEF learning and information network established for the International Waters-related projects. As a component of the SAP this site will be further developed and expanded. The results of future SAP interventions will be published and available in English and Russian on the project web site along with evaluations of the processes used to develop these interventions. SAP management reports will also be made publicly available.

Within the GEF structure, the lessons from the preparation of the Dnipro SAP fed into the IW LEARN recently developed training programme, "The TDA/SAP approach in the GEF International Waters Programme". Following on from this, the implementation of priority institutional and technical interventions to reduce chemical pollution will all provide replicable lessons for other programmes throughout the Dnipro Countries and FSU region.

Of immediate relevance to regional replicability are the recently completed RBM planning processes on the Pripyat and Dniester rivers, the former being a major tributary of the Dnipro. These projects also dealt with transboundary watercourses where they aimed to support the development of basin management capacity. The earlier experiences of Dnipro TDA/SAP preparation and subsequent implementation are immediately relevant. By extension the same will apply to other regions of the FSU as well.

As part of the general GEF strategy, the Project will participate in regional meetings of other GEF programmes and in meetings on Cleaner Production Technologies organized by other donors in the region.

[13] http://www.dnipro-gef.net/

[14] International Waters Distance Learning and Training Project – UNDP/GEF. GEF Focal Area(s): International Waters. GEF Programming Framework: Operational Programme #10, Contaminants-based Regional/Global Technical Support Component

PART III: Management Arrangements

IMPLEMENTATION

UNDP will act as the Implementing Agency (IA) for the Project with the UNDP-CO Kiev, Ukraine acting as the lead IA. UNDP has a significant track record of global cooperation with GEF having implemented a suite of projects that have resulted in the high-level adoption of 11 SAPS, of which seven are now under implementation. In addition to this, it has assisted in the creation or strengthening of 14 multi-country marine/coastal and river basin Commissions, and specifically the International Commission for the Protection of the Danube River which together with the Danube Project has played a significant role in mentoring both Belarus and Ukraine and the Dnipro Program in particular. Its efforts to achieve nutrient reduction goals have lead to the establishment of the innovative Strategic Partnership with the World Bank, European Union and other partners on nutrient reduction in the Danube/Black Sea basin which resulted in measurable reductions of nutrient and other pollution loads. In addition to this, the merger of the UNDP-GEF IW cluster with UNDP's Water Governance Programme means that the agency is well positioned to provide support in integrated water resources management, and water supply and sanitation. Thus it can be stated that UNDP has established itself as one of the leading international organizations supporting the improved governance of transboundary water bodies.

EXECUTION

Execution of the Project will take place through the United Nations Office for Project Services (UNOPS), as the Executing Agency (EA), through its International Waters Unit in accordance with standard operational, financial guidelines and procedures. UNOPS has been managing the Dnipro Program since it commenced in 2000 and therefore has a detailed corporate memory of events and historic processes. UNOPS will remain accountable to UNDP for the delivery of agreed outputs as per agreed project work plans, and for financial management and reporting as well as ensuring cost-effectiveness.

PROJECT COORDINATION AND ADMINISTRATION:

Institutional arrangements. The Project will continue to maintain its existing management structure which has served the Dnipro Program well since its inception in 2000. This structure will consist of a number of regional and national institutions that are assigned individual levels of responsibility for the execution of the Project. A brief description of the structure is set out below:

1. Regional Management Institutions

Steering Committee: Membership of the Committee will be composed of a senior government official (designated GEF National Focal Point (NFP) or his/her representative) from each country along with the UNDP/GEF Regional Technical Advisor for Europe/CIS (RBEC) (or their designated representatives). Members of the Joint Management Committee (JMC) or other Dnipro Basin stakeholders may be invited to sit on the Committee as observers as and when the full members so wish. The UNDP GEF Project Manager (Project Manager) would normally require to attend as an observer at the Committee's discretion or at the request of the UNDP/GEF RBEC Regional Technical Advisor.

The SC will set its own operational procedures and approve its own Terms of Reference. It will meet at least once a year and thereafter as frequently as the SC itself deems necessary. The SC will review the Project budget and work programmes as adopted by the Joint Management Committee (JMC) and provides feedback and policy guidance to the JMC on such matters.

The SC will function as the principal policy guidance body of the Project. The Committee will provide guidance to the Project Management Unit (PMU) either directly or through the JMC on issues

pertaining to the regional administration of the project and to the NPMCs on issues pertaining to the national administration of the Project.

The Chairman for each SC meeting will be the NFP or the Chairman of the NPMC of the host country. Funding for SC business will be covered by the Project together with the travel costs of the visiting members of the JMC for each meeting.

Joint Management Committee. The JMC will be composed of the two National Focal Points (NFPs) for the Project and the Project Manager. The Deputy Project Manager and the Project Executing Agencies may be invited as observers at the discretion of the Committee or at the request of the Project Manager. The JMC functions at a more operational level than the SC and focuses on providing broad policy and strategic guidance to the PMU between meetings of the SC.

The JMC will meet on average, every 3 months or as frequently as the Committee itself deems necessary or at the specific request of the SC or the Project Manager.

The JMC will adopt a draft annual project work plan and budget report, as presented by the Project Manager. These will be passed on to the SC for its review and consideration at their next meeting. The JMC will also be responsible for ensuring that the policy guidance of the SC is reflected regionally in the day-to-day functioning and management provided by the PMU and nationally through the NPMCs. Funding for meetings of the JMC will be provided by the Project.

Programme Management Unit. As a starting point the Project will be managed through the existing PMU based in Kyiv. The proposed staffing of the PMU will consist of the: Project Manager/CTA; Deputy Project Manager/River Basin Expert; two Projects Coordinators and a Financial Administrator. The Project Manager will prepare the TORS for all PMU staff. As part of his/her wider duties the Project Manager will communicate directly with both NPMC Chairmen and liaise with the Belarus NPMO as may be necessary. Given the scale and complexity of the Project due consideration will be given to financial management.

The PMU will carry out the day-to-day administration of the Project and be responsible to the JMC and the SC for the project activities, financial accountability, staff welfare and discipline, etc. The Project Manager will provide the JMC with a draft budget review and work plan in sufficient time prior to the annual SC meeting.

In terms of regular administrative reporting, the PMU will provide quarterly reports to the executing agency and UNDP, and an annual project report to UNDP. The PMU will also assist UNDP/GEF in preparing the annual Project Implementation Review. Finally there will be a number of management and evaluation activities that will be carried out and supported by the PMU. These will include a mid-term and final evaluation together with such other activities as may be requested from time to time by the UNDP Bratislava Regional Center.

In addition to managerial services the PMU will provide library resources, communications, report duplication and translation services, and will organize national and regional meetings as necessary. There will continue to be some overheads and administration resources associated with the continued functioning of the National Project Management Office (NPMO) in Belarus.

At all times the PMU will act as the regional secretariat for the JMC and the SC. In addition the PMU may be called upon to act as the interim secretariat for the IDBC should the same to be created within the term of the Project.

All PMU support costs and staff salaries will be covered by the Project together with possible contributions from other donors.

2. National Institutions

The National Project Management Committee. Membership of the NPMC will consist of the NFP, who will be the Chairperson, and other Government or non-government stakeholders as selected by the NFP in consultation with the Minister who is the member of the SC. The objective is to attain a broad participation of all sectors engaged in national decision-making with respect to the Dnipro Basin. The Project Manager and/or Deputy Project Manager will attend all meetings of the Committee.

The NPMC will meet on average, every 3 months and thereafter as frequently as the Committee itself deems necessary.

The NPMC will ensure that the Project policies adopted by the SC are reflected in the national execution of the Project. In this respect, the Chairman will liaise closely and co-ordinate with the Project Manager.

Meetings and all other direct functions of the NPMC will be nationally funded except that the cost of attendance of the Project Manager or Deputy Manager will be borne by the Project.

The National Project Management Office. The NPMO will act as a secretariat to the national interests of the Project and to the NPMC. The NPMO will liaise directly with the PMU and through the National Focal Point. Its purpose will be to provide administrative support to the needs of the NPMC which in the Project would be limited to Belarus as the PMU will adequately provide such support in Ukraine.

The NPMO would have a single staff member providing (secretarial/administrative) services along with communication support, - all of which will be financed by the Project.

Coordination with other initiatives in the Region.

The proposed Dnipro Full-size project will build on previous regional experience of joint management of shared water bodies, including the on-going and recently concluded GEF programs supporting the improved management of the Black Sea, the Danube and the Caspian Sea. In particular the project will draw on lessons from the earlier UNDP-GEF project introducing cleaner technologies in the Danube river basin. By addressing the issue of persistent toxic substances discharging through the Vodokanals the project has the capacity to provide lessons for joint management of other water bodies in Europe and Central Asia countries (ECA).

There are many other agencies currently working and/or planning activities in the Dnipro and Black Sea region as well. The World Bank's current Country Partnership Strategy for Ukraine is aimed at sustaining economic growth and improving competitiveness. Specific interventions in the environment sector are modest and few. Those that exist are largely limited to advocacy work highlighting the social and economic costs of industrial pollution and advisory services to support emission reductions which will allow Ukraine to benefit from carbon trading opportunities. At the present time there are no interventions planned in the water sector.

By comparison the World Bank strategy in Belarus contains more programs in the environmental sector. With its counterparts IBRD and the IFC, the WB has developed several credit projects which focus on improving access to fresh water sources and waste water infrastructure. These efforts are supplemented by programs aimed at pollution prevention of sub-surface aquifers and reducing heavy metal pollution. In addition the WB supports Belarus in its efforts to comply with provisions of the Kyoto protocol pursuant to which Belarus will be allowed to participate in the trade of pollution quotas.

Ukraine's relationship with EBRD is governed by their current Cooperation program for 2007-09. While the program largely deals with energy and transportation issues there are a number of interventions in the environment sector focused on municipal projects in several major industrial cities of the south-east. These dealing with such pressing issues as fresh water supply, improving

waste water treatment and central heating infrastructure. All of these have an underlying energy component as energy issues appear to be the dominant theme which underlies EBRD's current relationship. An emerging EBRD interest lies in the financial sector where micro-credit programs have been initiated for small and medium sized businesses. The Project will explore the latter for leveraging potential sources of investment in CP technologies.

The situation in Belarus is very similar where energy efficiency issues have dominated EBRD's focus, however emerging interest has now been expressed in financing acquisitions in the banking sector. Potentially this could lead to an expansion of financial services that would address the issues of investing in CP technologies as well.

The move to ever-closer ties with the EU, largely supported through TACIS, has introduced other common elements relevant to the Dnipro. The revised TACIS council regulation, running from 2000 to 2006, focused on six aspects, including institutional and legal reform, environmental protection and private sector and economic development. Of immediate relevance to the Dnipro is the river basin management planning process undertaken on the Pripyat River, a major tributary of the Dnipro, as part of the EU/TACIS funded Transboundary Water Quality Project. The project dealt with three other shared river bodies, where, at present only water quality monitoring is taking place. The Dnipro Program project has extensively shared its management planning experience of TDA/ SAP preparation together with RBM institution building.

A more recent development is the recently announced (2007) European Neighborhood Partnerships Instrument – replacing TACIS – which will focus on CIS states neighboring with the EU and the Caucuses. The intended focus on Water Governance issues such as RBM and IWRM are of mutual interest to the Project and efforts have already taken place to identify specific initiatives where respective programme resources can be shared to cofinance specific activities. Unfortunately the respectively different project cycles have added some complications to this issue especially as regards the ability to obtain a letter of cofinancing; however this appears to be only a formality rather than an issue of substance.

In addition the Bavarian Government through its Ministry of Environment is coordinating its planned initiatives in CP technologies with the Dnipro Program. During the PDF B/PIF phase the PMU has has held numerous meetings with the Bavarian side where joint training programmes for CP implementation have been identified as areas of mutual cooperation and cofinancing.

In the area of NGO outreach the Dnipro Program has applied successfully through the "Regional Partnership Initiative on Water Issues between Coca-Cola EMED & UNDP RBEC" pursuant to which the Project will undertake to organize certain water/ environmental activities and specifically a Dnipro Day which would represent a major 'first' in the region.

Meetings have also taken place with local representatives of the Nordic Environment Finance Corporation regarding the leveraging of their program credit opportunities with the Dnipro Project's pilot project activities. These were recent initiatives which will be further explored prior to and after the Project inception mission.

Notwithstanding the above it would appear that there is no one agency that has a sufficiently broad holistic program of multi-sector interventions which might infringe upon and/or duplicate the efforts of UNDP GEF. Rather, each agency has concentrated on establishing an area of comparative advantage intended on maximizing its individual strengths, resources and experience. In this respect UNDP GEF stands alone in its focus on remedial waste water treatment at the municipal level.

PART IV : Monitoring and Evaluation Plan and Budget

PROJECT INCEPTION PHASE

A Project Inception Meeting will be conducted with the PMU, relevant government counterparts and National Focal Points (NPFP), UNOPS, any co-financing partners, and representation from UNDP and GEF as appropriate.

A fundamental objective of this Inception Meeting will be to brief the PMU and give direction on the Project's goals and objectives. In addition the meeting will provide guidance on the preparation and content of the Project's first Annual Work Plan[15] (AWP) on the basis of the SRF matrix. This will include reviewing the SRF (performance indicators, means of verification, assumptions) and on the basis of this exercise finalize the AWP with precise and measurable performance indicators and in a manner consistent with the expected outcomes for the Project.

Additionally, the purpose and objective of the Inception Meeting will be to: (i) introduce the various stakeholders to the PMU which will manage the project during its implementation; (ii) detail the roles, support services and complementary responsibilities of UNDP and the PMU staff (iii) provide a detailed overview of UNDP/GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the annual Project Implementation Reviews (PIRs) and related documentation, Tripartite Review (TPR) Meetings, as well as mid-term and final evaluations. Equally, the Inception Meeting will provide an opportunity to inform the project team on UNDP project-related budgetary planning, budget reviews, and mandatory budget re-phasing.

The Inception Meeting will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the Project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference (TOR) for Project staff and decision-making structures will be discussed again, as needed, in order to clarify for all, each party's responsibilities during the project's implementation phase.

MONITORING RESPONSIBILITY AND EVENTS

The Inception Meeting will present a Schedule of M&E-related meetings and reports. This will have been developed by the Project Manager in consultation with UNDP RBEC. Such a schedule will include: (i) tentative time frames for Tripartite Reviews, SC Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) project related M&E activities. *Day to day monitoring of implementation progress* will be the responsibility of the Project Manager based on the Project's AWP and its indicators. The Project Manager will inform UNDP RBEC of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion.

The Project Manager will fine-tune the progress and performance / impact indicators of the Project in consultation with the Project team at the Inception Meeting with support from UNDP. Specific targets for the first year's implementation performance indicators together with their means of verification will be developed at this Meeting. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the AWP. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the PMU, and agreed with the SC.

Periodic monitoring of implementation progress will be undertaken by UNDP RBEC through the provision of quarterly reports from the PMU. Furthermore, JMC meetings can be scheduled between the PMU, the UNDP CO and other pertinent stakeholders as deemed appropriate and relevant (e.g. SC members, Focal Points, Co-financing partners, etc). Such meetings will allow parties to take stock

[15] The AWP will be developed in accordance and close reference of the AWP included in the Prodoc.

and to troubleshoot any problems pertaining to the Project in a timely fashion to ensure smooth implementation of project activities. A Report from any such meetings will be prepared by the PMU in coordination with UNDP RBEC, and circulated (no later than 14 days after the meeting) to the appropriate recipients.

Annual Monitoring will occur through the **Tripartite Review**[16] **(TPR).** This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The Project will be subject to Tripartite Review (TPR) at least once every year. The first such meeting will be held within the first twelve months following the Inception Meeting. The project proponent will prepare an Annual Progress Report[17] (APR), which includes the IW Results Template and submit it to UNDP RBEC at least two weeks prior to the TPR for review and comments.

The APR will be used as one of the basic documents for discussions in the TPR meeting. The Project Manager/ Advisor and team will present the APR to the TPR, highlighting policy issues and recommendations for the decision of the TPR participants. The Project Manager PMU team will also inform the participants of any agreement reached by stakeholders during the APR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary. The IW Results Template should provide clear definition of which IW Indicator requirements have been met along with verification.

Terminal Tripartite Review (TTR).

The TTR is held in the last month of project operations. The Project Manager is responsible for preparing the Terminal Report to be submitted to UNDP RBEC as per UNDP regulations. It shall be prepared in draft at least two months in advance of the TTR in order to allow review, and will serve as the basis for discussions in the TTR. The TTR considers the implementation of the Project as a whole, paying particular attention to whether the Project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of Project results, and acts as a vehicle through which best practices and lessons learned can be captured to feed into other projects under implementation or formulation. The TTR should refer to the independent Final Evaluation (FE) report, conclusions and recommendations as appropriate.

Project Monitoring and Reporting.

The Project Manager will be responsible for the preparation and submission of the following reports that form part of the monitoring process. Items (a) through (e) are mandatory and strictly related to monitoring, while (f) and (g) have a broader function and the frequency and nature is project specific to be defined throughout implementation.

(a) Inception Report (IR).

A Project Inception Report will be prepared immediately following the Inception Meeting. It will include a detailed First Year Work Plan divided in quarterly timeframes detailing the activities and progress indicators that will guide implementation during the first year of the Project. This Work Plan will include the proposed dates for any visits and/ or support missions from UNDP RBEC, UNOPS or consultants, as well as timeframes for meetings of the Project's decision making structures. The

[16] One SC meeting per year will perform the function of TPR. The TPR will be conducted in line with the annual joint UNDAF Review process of the lead UNDP CO, and in accordance with the UN harmonization procedures.

[17] An Annual Progress Report (APR), a key annual monitoring tool required by UNDP, and a Project Implementation Review (PIR), a key annual monitoring tool required by GEF, have been merged into one reporting system (and format) for all UNDP/GEF projects (hence called APR/PIR). The IW Results Template is an integral part of the PIR for all GEF IW projects.

Report will also include the detailed Project Budget for the first full year of implementation, prepared on the basis of the first AWP, and including any M&E requirements to effectively measure project performance during the targeted 12 months time-frame.

The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation, including any unforeseen or newly arisen constraints. When finalized, the report will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. UNDP RBEC will review the document prior to its wider circulation to ensure it conforms to UN Rules and Regulations as per UNDP's responsibility to GEF.

(b) Quarterly Progress Report (QPR) and (c) Project Implementation Review (PIR).

The QPR is a self-assessment report by project management to the UNDP RBEC and provides them with input to the reporting process as well as forming a key input to the TPR. The APR/PIR[18] is an annual monitoring process mandated by the GEF, to be overseen by the UNDP Task Manager and to be undertaken by the PMU; it has become an essential monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects.

An APR/PIR is prepared on an annual basis following the first 12 months of project implementation and prior to the TPR. The purpose of the APR/PIR is to reflect progress achieved in meeting the project's AWP and assess performance of the project in contributing to intended outcomes through outputs and partnership work. The APR/PIR is discussed in the TPR so that the resultant report represents a document that has been agreed upon by all of the primary stakeholders.

The items in the APR/PIR to be provided by UNDP/ GEF include the following:

- An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome;
- In particular, a completed IW Results Template defining project achievements or shortfalls in meeting IW indicator targets;
- The constraints experienced in the progress towards results and the reasons for these;
- The three (at most) major constraints to achievement of results;
- AWP and related expenditure reports;
- Updates of Co-financing figures realized;
- Lessons learned;
- Clear recommendations for future orientation in addressing key problems in lack of progress.

UNDP RBEC analyzes the individual APR/PIRs by focal area, theme and region for common issues/results and lessons. The Reports are also valuable for the Independent Evaluators who can utilize them to identify any changes in project structure, indicators, work plan, etc. and view a past history of delivery and assessment.

(d) Periodic Thematic Reports.

As and when called for by UNDP RBEC or other stakeholders, and when deemed appropriate, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the Project manager in written form, will be cleared through UNDP RBEC, and will clearly state the issue or activities that need to be reported on.

[18] As indicated in the footnote 20, the format and the reporting system of the APR (UNDP requirement) and PIR (GEF requirement) have merged and streamlined into one process. Thus, this key annual reporting tool will be referred to an APR/PIR.

These reports can be used as a form of lessons learned exercise, specific oversight in key areas, or as trouble-shooting exercises to evaluate and overcome obstacles and difficulties encountered. Stakeholders are requested to minimize their requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team.

(e) Project Terminal Report.

During the last three months of the project the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learned, objectives met, or not achieved structures and systems implemented, etc. and will be the definitive statement of the Project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the Project's activities.

(f) Technical Reports.

Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the PMU will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent reports. Technical Reports may also be prepared by external consultants and should be comprehensive, specialized analysis of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and regional levels.

(g) Project Publications.

Project Publications will form a key method of crystallizing and disseminating the results and achievements of the Project. These publications may be scientific, technical or informational texts on the activities and achievements of the Project, in the form of journal articles, multimedia publications, etc. These publications can be based on Technical Reports, depending upon the relevance, scientific worth, etc. of these Reports, or may be summaries or compilations of a series of Technical Reports and other research. The PMU will determine if any of the Technical Reports merit formal publication, and will also, in consultation with UNDP RBEC the governments and other relevant stakeholder groups, plan and produce these publications in a consistent and recognizable format. Any publications need prior clearance from UNDP RBEC. Project resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the project's budget.

In order to accord proper acknowledgement to GEF for providing funding, a GEF should appear on all relevant GEF project publications, including among others, project hardware and vehicles purchased with GEF funds. Any citation on publications regarding projects funded by GEF should also accord proper acknowledgment to GEF. The UNDP logo should be more prominent - and separated from the GEF logo if possible, as UN visibility is important for security purposes.

INDEPENDENT EVALUATION

The project will be subjected to at least two independent external evaluations as follows:

(i) Mid-term Evaluation (MTE).

An independent Mid-Term Evaluation will be undertaken at the end of the second year of implementation. The MTE will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of

the project's term. The organization, TOR and timing of the MTE will be decided after consultation between the parties to the project document. The TOR for this MTE will be prepared by UNDP.

(ii) Final Evaluation (FE).

An Independent Final Evaluation will take place three months prior to the terminal TPR meeting, and will focus on the same issues as the MTE. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The TOR for the Final Evaluation will be prepared by UNDP in line with the GEF evaluation requirements.

AUDIT CLAUSE

The Project will be audited in accordance with UNDP Financial Regulations and Rules and Audit policies.

LEARNING AND KNOWLEDGE SHARING

Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums (with specific consideration being given to DLIST as a Project internal mechanism and IW: LEARN as a more global mechanism). In addition:

- The project will participate, as relevant and appropriate, in UNDP/ GEF sponsored networks, organized for Senior Personnel working on projects that share common characteristics. UNDP/ GEF shall establish a number of networks, such as integrated ecosystem management, eco-tourism, co-management, etc, that will largely function on the basis of an electronic platform.
- The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/ or any other networks, which may be of benefit to project implementation through lessons learned.

The project will identify, analyze, and share lessons learned that might be beneficial for project under implementation or in the design and implementation of similar future projects. Identifying and analysing lessons learned is an on-going process, and the need to communicate such lessons as one of the project's central contributions is a requirement to be delivered not less frequently than once every 12 months. UNDP/ GEF shall provide a format and assist the project team in categorizing, documenting and reporting on lessons learned. To this end a percentage of project resources (at least one percent) will be allocated for these portfolio learning activities. The project will also participate and contribute the success of the biannual IW conferences. During the project implementation the project staff will develop at least two Experience notes to share with the global GEF IW community.

Table 4: Indicative Monitoring and Evaluation (M&E) work plan and corresponding Budget

Type of M&E activity	**Responsible Parties**	**Budget (US$)** *Excluding project team Staff time*	**Time frame**
1	2	3	4
Inception Meeting	· Project Manager/ Advisor · UNDP CO · UNDP/ GEF	$50,000 (under Travel/ DSA)	Within first two months of project start up
Inception Report	· Project Team · UNDP CO	None	Immediately following Inception Meeting
Measurement & Verification for IW Indicators and Project Progress performance Indicators	· Oversight by Project GEF Technical Advisor and Project Manager/ Advisor · Measurements by regional field officers and local IAs	$100,000 Included as part of Output 1.1 and 2.1 activity funding (Under Sub-contracts 2.1)	Start, mid and end of project
PIR and IW RT	· Project Team · UNDP CO · UNDP/ GEF	None	Annually
TPR and TPR report	· Government Counterparts · UNDP CO · Project team · UNDP/ GEF Regional Coordinating Unit (RCU)	None	Every year, upon receipt of APR
SC Meetings	· Project Manager/ Advisor · UNDP CO	None	Following Inception and subsequently at least once a year
Periodic status reports	· Project team	$5,000 (under Miscellaneous	To be determined by Project team and UNDP CO
Technical reports	· Project team · Hired consultants as needed	$10,000 (under Miscellaneous)	To be determined by Project Team and UNDP CO
Mid-term (External) Evaluation (MTE)	· Project team · UNDP CO · UNDP/ GEF RCU · External (i.e. evaluation team)	$39,400 (under Personnel and Travel/ DSA)	At the mid-point of project implementation
Final External Evaluation	· Project team, · UNDP CO · UNDP/ GEF RCU · External (i.e. evaluation team)	$39,400 (under Personnel and Travel/ DSA)	At the end of project implementation
Terminal Report	· Project team · UNDP CO · External Consultant	None	At least one month before the end of the project
Lessons learned	· Project team · Consultancies · UNDP/ GEF RCU (suggested formats for documenting best practices, etc)	$100,000 (under Output 4.1)	Yearly

1	2	3	4
Audit	· UNDP CO · Project team	4,000 - average $1000 per year. (under Travel/ DSA)	Yearly
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	· UNDP Country Offices · UNDP/ GEF RCU (as appropriate) · Government representatives	15,000 - (excluding UNDP staff travel costs, which will be charged to IA fees)	Yearly (average one visit per year)
TOTAL INDICATIVE COST ▪ ***Excluding project team staff time and UNDP staff and travel expenses***			**US$ 362,800**

INTERNATIONAL WATERS INDICATORS

The indicators to be used in the Project implementation were initially defined by the Dnipro TDA (2002) and were limited to such categories as water quality, anthropogenic loads and pollutants mass transfer.

However a successful SAP implementation needs to widen this list by incorporating the GEF International waters indicators developed since that time, as well as including some integrated indicators reflecting the status of the Dnipro basin at whole.

The latter are a special requirement of the Project which will introduce integrated biological and hydrobiological indicators into the TMP. The Project will also take into consideration the provisions of the WFD and UN ECE Guidelines "Recommendations to Governments of Eastern European, Caucasian and Central Asian countries for the application of environmental indicators and the preparation of indicator-based environmental assessment reports" which aim to include the above mentioned indicators into an updated TMP.

These indicators will be reviewed and endorsed by the Dnipro Countries and subsequently developed into a national monitoring template for Impact Measurement which directly relates to the requirements for IW indicator monitoring. This will be adopted and implemented within the first 6 months of the Project so as to allow monitoring to proceed at the national level during or immediately after the Inception Phase. This will provide measured and verified date for the overall M&E framework which will a) confirm Project delivery and b) confirm successful achievement of IW Indicator targets in Process, Stress Reduction and Environmental Status.

The SRF (see Section II, Part 1) also contains performance indicators that relate specifically to expected deliverables from the Project and these will also form part of this monitoring process.

PART V: Legal Context

This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of the Belarus and Ukraine and the United Nations Development Programme, signed by the parties on September 24, 1992 and June 18, 1993 respectively. The host country implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

The UNDP Resident Representative in Ukraine is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by the UNDP-GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

a) Revision of, or addition to, any of the annexes to the Project Document;

b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
d) Inclusion of additional annexes and attachments only as set out here in this Project Document.

The project will be audited in accordance with UNDP Financial Regulations and Rules and Audit policies.

SECTION II: STRATEGIC RESULTS FRAMEWORK

Strategic Results Framework

PROJECT STRATEGY	OBJECTIVELY VARIABLE INDICATORS AND CONDITIONAL FACTORS				
	INDICATOR	**BASELINE**	**TARGET**	**SOURCES OF VERIFICATION**	**RISKS AND ASSUMPTIONS**
GOAL:					
· ***Surface water and groundwater quality improved in the Dnipro Basin.*** · ***Health and sanitary situation improved*** · ***Social, environmental and economic issues are in the process of being tackled***	1. Increased biodiversity (number of species) and biological productivity (number of species productivity) of aquatic species in the Basin; 2. Incidences of waterborne diseases; 3. Funds (millions $) released to finance the construction of CP and comparable environmental facilities	1. Poor water quality and aquatic ecosystem status[19]; 2. High levels of water pollution by chemical substances and inadequate health/sanitary situation[1]; 3. Lack of appropriate approaches to address/tackle existing social/environmental/ economic issues, to be aligned, inter alia, with the basin management principle.	1. Adequate water quality that meets the requirements of EU Framework Water Directive (EU FWD); At least 20% increasing of aquatic biodiversity and species productivity 2. 30%-reduction in waterborne disease incidence; 3. At least 50% increasing of national funding allocations for environmental rehabilitation including introduction of CP are met in the Dnipro Basin.	1. National State of the Environment Reports. UNECE Environmental Performance Reviews; Report on the State of the Dnipro basin Environment; 2. Information and reports about the health/sanitary situation in the DBCs; 3. State budgets in the DBCs, status of financing environmental programmes.	

[19] Based on the TDA 2002 results

Strategic Results Framework (continued)

Project Strategy	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Objective of the Project:					
Begin implementation of the ministerially approved SAP via governance / intergovernments reforms and demonstration projects aimed at reducing transboundary persistent toxic substances (PTS) by small/medium size industries discharging through municipal waste water systems in the Dnipro river	1. Dnipro Agreement signed and SAP management bodies established; 2. Quantities of PTSs in ambient waters (ng/l) and quantities of PTSs discharged in the Dnipro Basin (tons/yr) in waste waters from point sources; 3. NAPs adopted and budget monies mde available for implementation; 4. Number of new pieces legislation acts, regulations and standards adopted to that of EU; 5. Number of reports received containing TMP information by National authorities and SAP management bodies;	1. Draft Dnipro Agreement is prepared; DBCs have declared[20] necessity for SAP management bodies to be established. 2. Reliable information on PTSs discharges as well as PTSs content in environment medias is poor or lacking; 3. Dnipro SAP (2004) endorsed by the DBCs, though NAPs are yet to be approved[21]; 4. Legal framework for pollution control / regulation needs to be improved; 5. First TMP draft was developed	1. Sustainable work of SAP management bodies; 2. Observance of MAC[22] PTSs levels in ambient waters and reduction in PTSs discharges and quantities by 30-50%. 3. NAPs developed and adopted. Adequate funding released by DBCs to finance NAPs; 4. National harmonization programs are developed, adopted and financed; 5. TMP information about PTSs discharges communicated to relevant authorities;	1. Signing of Dnipro Agreement, SAP management bodies created; 2. Data on PTSs content in ambient waters; Pollutant discharge data in tons/yr; 3. Financing released from national sources (USD equivalent); 4. Changes and amendments made in the environmental legislation, new laws and regulations; 5. TMP Yearbook, other environmental information;	Environmental policies adopted in the DBCs and policies of international environmental cooperation remain unchanged; DBCs take adequate measures to abate/reduce diffuse pollution and PTP load associated with effluent discharges from large industrial enterprises[23] as well.

[20] Dnipro Declaration, 2007
[21] Circa mid-2008
[22] Maximal allowable concentrations (see Sanitary rules and norms for protection of waters against pollution dated from 04.07.1988 N 4630-88)
[23] Those that discharge directly to water bodies.

Strategic Results Framework (continued)

Project Strategy	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Component 1. To implement Pilot Projects introducing cleaner production methods to small / medium size industries discharging persistent toxic pollutants into municipal waste water treatment systems a) to introduce innovative and sustainable financing mechanisms b) to conduct feasibility study for establishment of a Regional Cleaner Production Center					
Outcome 1.1.: Replicable pilot/demo projects demonstrate stress reduction measures of persistent toxic pollutants. Improved profitability of industries applying cleaner technologies result in enhanced economic productivity in both countries					
<u>Output 1.1.</u> 5 industries in both Belarus and Ukraine introduce appropriate cleaner technologies (CT)	1. Point source pollutant (including PTSs) releases into WwTPs reduced (tons/yr); 2. Reduced concentration of PTS in waste waters discharged by pilot industries; 3. Number of pilot projects and low-cost CP measures implemented; 4. Number of specialists receive training to operate and maintain on-site wastewater treatment equipment and processes; 5. Number of dissemination and information events and publications and experience notes on CP introduction.	1. Information about PTS point sources pollution is unavailable; 2. Infrequent information on PTSs concentrations in the environment; 3. Information about CP experiences is poor or lacking in the DBCs. 4. CP trainings are uncommon and don't take place on a systematic basis;. 5. Information about CP practices is poor or lacking	1. Reduction of pollution discharge (including PTS) on 60% at pilot industries and 20% by realizing of low-cost measures; 2. Meeting of Vodokanals PTSs permitted concentrations in discharging waste waters; 3. Five industries participate in pilot projects on introduction of CP and twenty-five additional industries implement low cost measures; 4. CP trainings are delivered to at least 25 industrial enterprises, 12 local authorities and the wider public. 5. At least 7 dissemination events, 5 experience notes and publications	1. Pollutant discharge data in tons/yr; 2. Observations on pollutants concentrations in waste waters; 3. Feasibility studies completed; Funds allocated to finance all CP pilot/demo projects; 4. Training reports; 5. Information bulletins, publications in mass media, thematic web-pages, experience notes, etc.	DBCs provide appropriate financial support mechanisms and administrative incentives to industries participating in CP pilot projects and implementation of low cost measures.

Strategic Results Framework (continued)

Project Strategy	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Outcome 1.2: Increased capacity development for adoption of the CP concept at the national level					
Output 1.2. Report of tailored proposals of soft loans, tax incentives, licensing, tariffs and incremental costs	1. Number of specific proposals for potential funding sources; 2. Number of industries informed about new financing mechanisms; or (%) increase of Basin industries using soft loans, tax incentives etc as incentives for introducing CP technologies.	1. Little information available about diverse sources of financing available for CP. 2. Complicated and non-transparent mechanisms used to attract funding to environmental projects.	1. At least 25 industrial enterprises and 12 local authorities receive proposals for potential funding sources and recommendation on "how to use" new financial mechanisms. 2. At least twofold increasing of industries using soft loans, tax incentives etc as incentives for introducing CP technologies.	1. Reports of tailored proposals of soft loans, tax incentives, licensing, tariffs and incremental costs. 2. Annual reports and periodic reports by Audit Chamber of government expenditures	Non-transparent contractual relationships between Vodokanals and industries impede access to reliable economic data
Output 1.3. Report of recommendations detailing regulatory changes needed to facilitate introduction of CT	1. Number of institutional regulatory changes to facilitate introduction of CT; 2. Number of people trained on various aspects of CP development and implementation; 3. (%) of Basin industries introducing CP methods/technologies.	1. Inadequate legal and institutional support for CP initiatives; 2. CP trainings are uncommon and don't take place in a systematic manner; 3. Inadequate knowledge about advantages and opportunities associated with CP methods	1. At least 2 new national legislation and/or legislative provisions introducing CP methodology in the line with EU laws 2. At least 7 local authorities, 4 public representatives and 25 industry managers trained 3. 50% increasing of industries introducing CP methods/technologies	1. CP Concept developed and Draft CP Protocol to the Dnipro Basin Agreement; 2. Training reports; 3. Ministerial statistical data on CP introduction at industrial enterprises	DBCs provide support to implementing new CP initiatives.

Strategic Results Framework (continued)

Project Strategy	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Outcome 1.3. Reduced point source discharges to shared water body resulting in improved chemical, biophysical and biological parameters[24].					
Output 1.4. Report detailing proposed system to monitor at point of discharge for compliance and/or effectiveness of CT process	1. Number of new laws and regulations regulating discharge of pollution from point sources to natural water bodies; 2. Number of fines (USD equivalent) for violation of Vodokanals permissible discharges; 3. Number of new monitoring stations or programmes.	1. Legal framework, regulation and procedures for pollution prevention and control are neither transparent nor clear to enterprises, local authorities and public 2. Fines and extra payments are high. 3. There are no local monitoring stations at pilot industries	1. At least 2 new regulations meeting WFD requirements. 2. Number of fines for violation of permissible discharges is decreased twofold. 3. At least 3-5 new local monitoring stations established at the pilot industries.	1. Proposed options for improving pollution regulation arrangements; 2. Statistical data (2-tp Vodhoz); 3. Data provided by local monitoring systems.	Vodokanals driven by their monopolistic corporate interests are reluctant to accept change in existing regulatory arrangements or development of local monitoring capacity.
Component 2. To prepare Transboundary Monitoring and Indicators Program (TMP) for SAP implementation					
Outcome 2.1: Effective and sustainable mechanisms in place for monitoring long-term SAP implementation					
Output 2.1. An expended TMP which will include the use of Process Indicators, Stress Reduction Indicators and Environment Status Indicators	1. Updated TMP adopted by NPMCs 2. Budget money allocated for TMP implementation; 3. Number of references to TMP data in management decisions. 4. Number of incidents of regional exchange of TMP information between DBCs	1. TMP developed in 2003 and needs to be updated and adopted 2. Special government programmes foresee TMP financing from national sources 3. There are no references to TMP environment data 4. There are no incidents of regional exchange of TMP information between DBCs	1. TMP updated and modified in line with the GEF and EU FWD requirements by 2009. TMP adopted by DBCs. 2. 2. Promised $875,000 allocation by Belarus and $320,000 by Ukraine. 3. Management decisions contain references to TMP data. 4. At least annual exchange of TMP information between DBCs	1. New draft of TMP delivered to DBCs governments 2. State budgets. 3. Appropriate management decisions. 4. TMP Yearbook published;	Institutional inconsistencies and overlaps caused by unclear allocation of tasks/responsibilities among numerous subjects of monitoring addressed/removed in the TMP development process

[24] Moved from component 3, outcome "C", see PIF

Strategic Results Framework (continued)

Project Strategy	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Outcome 2.2. Relevant government bodies and other stakeholders better informed on effectiveness of SAP policies					
Output 2.2. A regional targeted TMP with information needs and end-users clearly identified	1. Number of TMP users are specified and receive reliable information; 2. Number QA/QC tests performed; 3. Number of references to TMP are in management decisions and NGO publications and education curricula.	1. The strategy behind existing TMP version dates back to 2003 and needs to be updated; 2. Further improvement is required for the QA/QC system at national and international levels. 3. There are no references to TMP environment data	1. TMP strategy reviewed, updated and optimized by 2009; 2. Transboundary QA/QC system is established and work on sustainable manner from 2009; 3. Management decisions and NGO publications as well as education curricula contain the references to TMP data.	1. Updated TMP is delivered to NPMCs; 2. Results of inter-laboratory comparisons and proficiency tests. 3. References on TMP environmental data	DBCs approve and finance the TMP at the national level.
Output 2,3.[25] Regular reporting procedures in place, including the interpretation of monitoring data to guide decision making and policy modification	1. Number of TMP Yearbooks widely disseminated 2. Number of publications made available via the Internet	1. Absence of publications of any current TMP data 2. Lack of regular and up-to-date information about the state of environment in the Dnipro Basin	1. 300 copies of annual TMP Yearbooks and similar number of revised State of the Dnipro Basin Environment (SDBE) reports issued and disseminated. 2. Publications based on TMP environment data are available via the Internet on an ongoing basis;	1. TMP Yearbooks and SDBE reports published and distributed 2. Government websites containing TMP data (or references to TMP)	SAP management bodies established and become the main clients and active users of the TMP.

[25] Moved from Component 4, output "C", see PIF

Strategic Results Framework (continued)

Project Strategy	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Component 3. Harmonization of Environmental Legislation to that prevailing in the EU **a) To strengthen regulatory and legal frameworks governing cleaner technologies;** **b) To introduce harmonized environmental legislation in line with that prevailing in the EU;** **c) To improve monitoring procedures, strengthen regulatory and legal frameworks**					
Outcome 3.1. A better legislative enabling environment for CT investment and improved national and regional legislative framework for transboundary pollution reduction in the Dnipro River basin					
<u>Output 3.1.</u> Belarus and Ukraine begin the process of adapting their environmental legislation to an agreed set of EU norms focusing on six preselected EU directives	1. Number of harmonized legislation acts developed in line with that prevailing in the EU; 2. Number of Internet publications reflecting the process of adapting DBCs environmental legislation to an agreed set of EU norms. 3. (%) of compliance to Policies/Regulations on improved water resources management using watershared principle and in line with that prevailing in the EU	1. Lack of programmed, focused and consistent action towards harmonizing national legislation with the EU laws; 2. Information about harmonization process is lacking. 3. Watershared principle declared in DBCs; but not implemented.	1. Two developed and nationally adopted programmes of legislative harmonization toward six main EU directives 2. 3 websites (Project website and 2 DBCs) contain information about harmonization initiatives in each country 3. Legal and institutional mechanisms used for introduction of watershared principle in the Dnipro basin are developed	1. Report on harmonization prepared and approved by NPMCs; 2. Information is publicly available and disseminated through mass media, Internet etc. 3. At least 2 legislative acts or regulations ensuring the introduction of the watershared principle as a DBCs governance long term policy	DBCs develop, approve, finance and implement their legislative harmonization strategies (plans, programmes) designed to bring their national legislation closer to that of the EU.

Strategic Results Framework (continued)

Project Strategy	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Component 4. To establish key institutional and management structures within the wider SAP implementation management bodies					
Outcome 4.1. Permanent and sustainable multi-country institutional (policy and executive) and participatory mechanisms and operational for long term integrated management of the Dnipro River basin					
Output 4.1.[26] Adoption and ratification of the draft Agreement on Cooperation in the Dnipro basin	Fact of Dnipro Basin Agreement signing	Draft Dnipro Basin Agreement developed	DBCs sign the Dnipro Basin Agreement	Copy of Signed Agreement	DBCs commit to manage their shared water resources according to basin principles which are incorporated in national legislation and international agreements
Output 4.2. Agreed timetable and regular meetings of management bodies and records of meeting publicly available	Number of SAP management body meetings.	Commitments to establish SAP management bodies are specified in the 2007 Ministerial Declaration.	SAP management bodies established and meet on a regular basis	Regular meetings	DBCs exhibit political will to convene meetings, develop agendas, plans of action and lobby decision makers with their recommendations
Output 4.3. Confirmed and sustainable budgetary provisions for supporting the SAP management bodies	Budgete monies allocated and enable SAP management bodies to function;	Financial and organizational support for SAP management bodies is lacking in the DBCs.	Adequate legal and financial support to organize at least two meeting of SAP management bodies annually.	State budgets, budgets of Ministries	Funding will be provided by the DBCs to support operations of SAP management bodies
Output 4.4. Stakeholder involvement expended to include private sector, specifically private	Number of meetings of the Dnipro Council and NGO forums	Several meetings of the Dnipro Council and NGO forums took place during Dnipro Program Phase 1 (2000-05)	Dnipro Council and NGO forums receive financial support enabling them to convene and meet at least once per year.	Periodic meetings of the Dnipro Council and NGO forums	DBCs see merit in broader stakeholder involvement and allocate funds required to support advisory basin

[26] Moved from Component 3, output "A", see PIF

Strategic Results Framework (continued)

Project Strategy	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
industries and other local organizations in areas affected by SAP interventions					structures.
<u>Output 4.5.</u> Revised and updated SAP and TDA, in response to impacts of SAP implement-tation projects, new challenges and modified environmental quality objectives, annual amendments as required	1. Fact of DBCs commitment to update TDA/SAP 2. Increased media references to SAP as government policy	1. TDA/SAP now five years old with no updates to date 2. Infrequent references to TDA/SAP in mass media	1. DBCs adopt Project recommendations for inclusion to TDA/SAP revision 2. Available information in Media about SAP/NAP renewal and following implementation	1.Minutes of NPMCs decisions on TDA/SAP renewal; 2. DBCs create organizational infrastructure to take on TDA/SAP revision and commit funds for same.	DBCs continue to see value of TDA/SAP revisions as an effective basin management tool
				Preconditions:	
				(1) Project budget approved and funds disbursed for implementation. (2) NPMCs established and fully operational. (3) National Dnipro Countries requirements for Project Registration completed within a reasonable time.	

SECTION III: TOTAL BUDGET AND WORK PLAN

Part I. Budget

Project ID:	**00063430**
Award ID:	**00051077**
Award Title:	**PIMS 3246 IW FSP: Implementation of the Dnipro Basin Strategic Action Program for the reduction of persistant toxics pollution**
Business Unit:	**UKR10**
Project Title:	**PIMS 3246 IW FSP: Implementation of the Dnipro Basin Strategic Action Program for the reduction of persistant toxics pollution**
Implementing Partner (Executing Agency)	**UN Office for Project Services (UNOPS)**

GEF OUTCOME/ATLAS ACTIVITY	Res. Party - Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	Atlas Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)	Budget Note:
1	2	3	4	5	6	7	8	9	11	12
Component 1: To implement Pilot Projects introducing CP methods to small / medium size industries discharging PTS into municipal waste water treatment systems	UNOPS	62000	GEF	71200	International Consultants	80200	87500	87300	255000	Approximately 60% of Component 1 financing will be spent on trainings both in the EU and in the DBCs. The project envisions the need for 10 local consultants to actively implement component activities. Several international consultants will assist with knowledge transfer and advice input into feasibility studies for pilot industries
				71300	Local Consultants	158600	144500	155900	459000	
				71600	Travel	144000	135000	141000	420000	
				74200	AV & Publications	97200	83000	85800	266000	
	SUBTOTAL					**480000**	**450000**	**470000**	**1400000**	
Component 2: To prepare Transboundary Monitoring and Indicators Program (TMP) for SAP implementation	UNOPS	62000	GEF	71200	International Consultants	16906	16508	16906	50320	Two local consultants and one international consultant will update TMP and actively implement Component 2 activities. Expected travel expenses relate to attendance of consultant at regional meetings only.
				71300	Local Consultants	21480	20200	20000	61680	
				71600	Travel	21000	18000	21000	60000	
				74200	AV & Publications	9800	8400	9800	28000	
	SUBTOTAL					**69186**	**63108**	**67706**	**200000**	
Component 3: To strengthen regulatory and legal frameworks	UNOPS	62000	GEF	71200	International Consultants	4750	4500	4750	14000	Two local consultants and one international consultant will advise/prepare the monitoring program for HNAPs
				71300	Local Consultants	5950	5100	5950	17000	

governing cleaner technologies(CT)				71600	Tra vel	11500	10000	11500	33000	implementation. They will also lead the information sharing activities.
				74200	AV & Publications	12000	12000	12000	36000	
	SUBTOTAL					**34200**	**31600**	**34200**	**100000**	
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**11**	**12**
Component 4: To establish key institutional and management structures within the wider SAP implementation management bodies.	UNOPS	62000	GEF	71200	International Consultants	5080	5600	5740	16420	Two local and one international consultants will advise/prepare main statutory documents for IDBC. Travel expenses will support the regular activities of the Regional working group including the hosting of a signing event for the Dnipro Agreement. The Project anticipates that the IDBC will be created during the term of the Project and as such the PMU will provide initial support services and act as provisional Secretariat during the project term.
				71300	Local Consultants	9180	8100	9720	27000	
				71600	Travel	16830	14850	17820	49500	
				74200	AV & Publications	16910	18050	22120	57080	
	SUBTOTAL					**48000**	**46600**	**55400**	**150000**	
Project management	UNOPS	62000	GEF	71200	International Consultants	19054	19053	19053	57160	The PMU office in Kyiv has been considerably downsized since Phase 1 of the Programme The present PMU office is located next to the UN House in Kyiv and will remain as the operational base of the project subject to issues of compliance with UN Security Standards. No vehicle expenses will be incurred by the project. Anticipated international travel will, for the most part, be restricted to the Dnipro basin countries. The Project will cover the cost of attendance at meetings of the Steering and Joint Management Committee. Expenses include external midterm and final evaluation.
				71300	Local Consultants	20295	20295	20290	60880	
				71600	Travel	14000	13000	13000	40000	
					Office expenses	8988	8986	8986	26960	
	SUBTOTAL					**62337**	**61334**	**61329**	**185000**	
GEF SUPPORTED PROJECT TOTAL						**693723**	**652642**	**688635**	**2035000**	

No	Component, task or activity	Implementation period (years, quarters)											
		2009				2010				2011			
		1	2	3	4	1	2	3	4	1	2	3	4

Part II. Work Plan

No	Component, task or activity	Implementation period (years, quarters)											
		2009				2010				2011			
		1	2	3	4	1	2	3	4	1	2	3	4
Component 1. To implement Pilot Projects introducing cleaner production methods to small / medium size industries discharging persistent toxic pollutants into municipal waste water treatment systems a) to introduce innovative and sustainable financing mechanisms b) to conduct feasibility study for establishment of a Regional Cleaner Production Center													
Outcome 1(a)	**Replicable pilot/demo projects demonstrate stress reduction measures of persistent toxic pollutants**												
Output 1.1	**Two to three industries in both Belarus and Ukraine will introduce appropriate cleaner technologies**												
Activity 1.1	Preparation of a CP Programme of Actions to introduce CP methods for each industry participating in the Pilot Project phase	x	x	x									
Activity 1.2	Preparing and implementing specialized CP Training Courses for engineering and technical staff of pilot industries			x	x	x							
Activity 1.3	Implementation of 5 pilot CP investments in Belarus and Ukraine to be co-financed by selected participating industries			x	x	x	x	x	x	x	x	x	x
Activity 1.4	Implementation of low-cost CP improvements at an additional 10 industries in Belarus and 15 industries in Ukraine				x	x	x	x	x	x	x		
Outcome 1(b)	**Increased capacity development for adoption of the Cleaner Production concept at the national level**												
Output 1.2	**Report of tailored proposals of soft loans, tax incentives, licensing, tariffs and incremental costs**												
Activity 1.5	Enhancing the incentive-based mechanisms for promoting the CP approach by offering assistance with the drafting of new laws and regulations					x	x	x	x	x	x		
Activity 1.6	Strengthening sustainable financing arrangements to support the implementation of specific CP projects at the selected pilot industries		x	x	x	x	x						
Output 1.3	**Report of recommendations detailing regulatory changes needed to facilitate introduction of cleaner technologies including the feasibility of a Cleaner Technology Center**												
Activity 1.7	Preparation of a draft CP Concept consisting of an enhanced strategic planning framework for the	x	x	x	x								

No	Component, task or activity	Implementation period (years, quarters)											
		2009				2010				2011			
		1	2	3	4	1	2	3	4	1	2	3	4
	promotion/introduction of CP methods												
Activity 1.8	Improving institutional capacity designed to support the development and establishment of an effective mechanism for cooperation and coordination					x	x	x	x	x	x	x	x
Activity 1.9	Improving awareness and access to information on CP issues among legislative/executive authorities, industry managers and the general public			x	x	x	x	x	x	x	x		
Activity 1.10	Enhancing educational and human resource capacity by taking measures which will improve knowledge and expertise in CP and environmental management/protection among various target industry groups			x	x	x	x	x	x	x	x	x	x
Activity 1.11	Preparation of revisions to SAP/TDA on CP issues									x	x		
Outcome 1©	**Reduced point source discharges to shared water body resulting in improved chemical, biophysical and biological parameters**												
Output 1.4	**Report detailing proposed systems to monitor at point discharges for compliance and/or effectiveness of the CT process**												
Activity 1.12	Enhancing legal and institutional regulatory mechanisms for industrial discharges by developing methodological guidelines designed to improve specific aspects of existing water quality regulation and pollution control systems	x	x	x	x								
Component 2. To prepare Transboundary Monitoring and Indicators Program (TMP) for SAP implementation;													
Outcome 2(a)	**Effective and sustainable mechanisms in place for monitoring long-term SAP implementation**												
Output 2.1.	**An expended TMP which will include the use of Process Indicators, Stress Reduction Indicators and Environment Status Indicators**												
Activity 2.1	Establishing and supporting the operation of international and national working groups (centres) for monitoring the TMP implementation	x	x	x	x	x	x	x	x	x	x	x	x
Activity 2.2	Enhancing the legal and regulatory framework for environmental monitoring, to take account of the relevant EU legislations and best international practice		x	x	x	x							
Activity 2.3	An assessment of required information needs of Regional and National basin management bodies		x	x	x	x							
Activity 2.4	Preparation of revisions to SAP/TDA on monitoring issues									x	x		
Outcome 2(b)	**Relevant government bodies and other stakeholders better informed on effectiveness of SAP policies**												
Output 2.2	**A regional targeted transboundary monitoring program with information needs and end-users clearly identified**												
Activity 2.5	Establishing and enhancing a common system for water			x	x	x	x						

No	Component, task or activity	Implementation period (years, quarters)											
		2009				2010				2011			
		1	2	3	4	1	2	3	4	1	2	3	4
	quality and ecosystem status assessment												
Activity 2.6	Development of a methodological approach for assessing/quantifying pollution loads associated with diffuse sources of water pollution					x	x						
Activity 2.7	Preparation, planning and implementation of environmental monitoring training courses			x	x	x	x						
Activity 2.8	Organising and implementing interlaboratory comparisons/proficiency tests at the regional level					x	x	x	x				
Activity 2.9	Establishing capacity for monitoring environmental emergencies caused by accidental pollution release; developing the conceptual design of an early warning system							x	x	x			
Output 2.3	**Regular reporting procedures in place, including the interpretation of monitoring data to guide decision making and policy modification**												
Activity 2.10	Review of monitoring results in order to provide adequate information to stakeholders			x	x	x	x	x	x	x	x	x	x
Component 3. Harmonization of Environmental Legislation to that prevailing in the EU													
Outcome 3(a)	**A better legislative enabling environment for CT investment and improved national and regional legislative frameworks for transboundary pollution reduction in the Dnipro River basin**												
Output 3.1	**DBCs begin the process of adapting their environmental legislation to an agreed set of EU norms focusing on six preselected EU directives**												
Activity 3.1	Preparation of national Reviews of Harmonization reports completed in Phase 1	x	x	x	x								
Activity 3.2	Design and undertake a series of training courses to enhance the institutional capacity for implementing the harmonization progress					x	x	x	x				
Activity 3.3	Development and implementation of a Monitoring Program on HNAP implementation					x	x						
Activity 3.4	Preparation of two Annual Progress Reports based on the approved Monitoring Program						x				x		
Activity 3.5	Support for a broad information campaign aiming to overcome current barriers to information exchange, raise the awareness of legislative and executive authorities			x	x	x	x	x	x	x	x	x	x
Activity 3.6	Preparation of revisions to SAP/TDA on harmonization issues									x	x		

No	Component, task or activity	Implementation period (years, quarters)											
		2009				2010				2011			
		1	2	3	4	1	2	3	4	1	2	3	4
Component 4. To establish key institutional and management structures within the wider SAP implementation management bodies													
Outcome 4(a)	**Permanent and sustainable multi-country institutional (policy and executive) and participatory mechanisms established and operational for long-term integrated management of the Dnipro River basin**												
Output 4.1	**Adoption and ratification of the draft Dnipro Agreement on Cooperation in the Dnipro basin**												
Activity 4.1	Organizing public hearings and stakeholder meetings to discuss the draft Agreement						x	x					
Activity 4.2	Organizing the Signing Process for the Agreement								x	x			
Output 4.2	**An agreed timetable and regular meetings of management bodies and records of meetings publicly available**												
Activity 4.3	Support the operation of a Regional Working Group (RWG) on sub-management bodies which will assist the Dnipro Basin Countries with finalization of the draft Agreement and the subsequent signing process	x		x		x		x					
Activity 4.4	Assisting with the preparation of relevant statutory documents required to establish and sustain the operation of international basin management bodies						x	x					
Activity 4.5	Developing and establishing procedures designed to ensure the involvement of Public Representatives and distribution of information										x	x	x
Output 4.3	**Confirmed and sustainable budgetary provisions for supporting the SAP management bodies**												
Activity 4.6	Upon the creation of the IDBC the PMU will take on the functions and serve as an interim Basin Secretariat for the IDBC during the term of the Project		x				x				x		
Activity 4.7	Supporting the development and launch of the official web-page of the IDBC and ensure that it is fully aligned with and reflects it's mission and functions										x	x	x
Output 4.4	**Stakeholder involvement expanded to include private sectors, specifically private industries and other local organizations in areas affected by SAP interventions**												
Activity 4.8	Organizing and Convening NGO Forums on an Annual Basis		x				x				x		
Activity 4.9	Organizing and celebrating the annual Dnipro Day as a regional event					x				x			
Activity 4.10	Organizing and implementing educational and Dnipro awareness raising projects for school students on an annual basis								x	x	x	x	

No	Component, task or activity	Implementation period (years, quarters)											
		2009				2010				2011			
		1	2	3	4	1	2	3	4	1	2	3	4
Output 4.5	**Revised and updated SAP and TDA, in response to impacts of SAP implementation projects, new challenges and modified environmental quality objectives, annual amendments as requ**												
Activity 4.11	Development of revisions to SAP/TDA											**x**	**x**
Component 5. Project management													
Activity 5.1	Project management	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**

SECTION IV: ADDITIONAL INFORMATION

PART I: Endorsement and Commitment Letters

Attached as a separate document.

PART II: Organigram of Project

N/A

PART III: Terms of References for Key Project Staff and Main Sub-contracts

PROJECT MANAGER / CHIEF TECHNICAL ADVISOR.

General Job Description

The Project Manager shall be responsible for the overall management of the project. He/she shall report directly to UNDP RBEC on program matters and to UNOPS on financial/administrative issues. He/she shall liaise directly with the National Focal Points and the representatives of the GEF partners and other donors, in order to co-ordinate the annual work plan for the Project. The work plan will provide guidance on the day-to-day implementation of the current project document and on the integration of the various donor funded parallel initiatives. He/she shall be responsible for all substantive, managerial and financial reports from the Project. He/she will provide overall supervision for all staff in the Project Management Unit as well as guiding and supervising all external policy relations. The Project Manager will communicate directly with the National Project Management Offices (NPMO) and with the Chairmen of the NPMCs. He/she shall consult with, and the Project Steering and Joint Management Committee and senior representatives of partner agencies. He/she shall also co-ordinate, where necessary, with the respective UNDP environment program officers in both Dnipro Basin Countries.

Duties

The Project Manager will have the following specific duties:

- to manage the PMU, its staff and budget;
- to be personally involved in project implementation of the workplan;
- to prepare the annual work plan of the project on the basis of the Project Document, in close consultation and co-ordination with the National Focal Points, GEF Partners, and relevant donors;
- to co-ordinate and monitor the activities described in the work plan and maintain direct contact with all donors and participating agencies in the project;
- to ensure consistency between the various project elements and related activities provided or funded by other donor organizations;
- to prepare and oversee the development of Terms of Reference for PMU staff, consultants and contractors;
- to co-ordinate and oversee the preparation of the substantive and operational reports from the Project; and
- to foster and establish links with other related GEF IW regional and national projects;

Skills and Experience Required

- post-graduate degree in Environmental Management or related field;
- at least ten years experience at a senior project management level.
- demonstrated diplomatic and negotiating skills;
- familiarity with the goals and procedures of UNDP-GEF, the IW sector and other international organizations active in the region;
- excellent knowledge of English; and
- relevant work experience in the Dnipro Basin countries, and
- knowledge of Russian or Ukrainian languages is highly desirable assets.

Duty station: Kyiv, Ukraine

THE DEPUTY PROJECT MANAGER - RIVER BASIN MANAGEMENT EXPERT

General Job Description

The Deputy Project Manager - River Basin Management Expert is a post reserved for a national of one of the Dnipro Basin countries. The individual will assist the Project Manager with his duties and will assume the duties of the Project Manager during periods of absence of the post holder. He will also have specific responsibilities to act as recording secretary for the SC, JMC, Dnipro Council and the future IDBC secretariat.

He will also provide additional expertise to the PMU for coordinating the implementation of the pilot/demo projects. He will maintain and coordinate the participation of Vodokanals, Oblast administrations and other agencies participating in the pilot/demo phase of the project.

He will bring technical expertise to the project based upon his professional involvement in river basin management projects in the region. He will assume responsibility for organizing the PMU activities set out in the Work Plan and will coordinate the activities of working groups involved in the attainment of project outcomes. He will also help define and coordinate the functions of the IDBC upon its creation.

Skills and Experience Required

- post-graduate degree in Environmental Management or related field;
- experience with introduction of CP technologies and familiarity with CP methodologies;
- at least five years experience in project management;
- familiarity with the goals and procedures of UNDP-GEF, the IW sector and other international organizations active in the region;
- relevant work experience in the Dnipro Basin countries;
- must have a valid international passport and the ability to travel within the region and the EU;
- Fluency in Russian and Ukrainian (spoken and written) is a requirement and a working knowledge of English is highly desirable.

Duties

The Deputy Project Manager - River Basin Management Expert will have the following specific duties:

- to act as recording secretary for the management institutions named above;
- to attend meetings of the National Project Management Committees in order to ensure liaison between all project components;
- to assist with the administration of other components where required by the Project manager;
- to contribute his/her own expertise to the implementation of specific components of the project.
- to provide support to the Project Manager for the technical implementation of the project, according to the agreed workplan;
- to ensure liaison between the four components of the project (the constituent Working Groups, etc.) and with the international and local consultants engaged in the implementation of the project;
- to liaise with donors, UN Agencies and other institutions engaged in project implementation;
- to provide technical support for the process of endorsement of the Dnipro Agreement.
- must have a valid international passport and the ability to travel within the region and the EU;
- knowledge of Russian or Ukrainian languages is a requirement and a working knowledge of English is highly desirable.

Duty station: Kyiv, Ukraine

PART IV: Stakeholder Involvement Plan

1. THE BACKGROUND

Stakeholder participation in the FP is guided by the overall objective to facilitate SAP implementation.

During the earlier DBEP phase, considerable attention was paid to involving a broad range of stakeholders in the determination of environmental and social priorities and in identifying appropriate interventions.

Given that chemical pollution was identified as the major regional priority in the Dnipro Basin, the implementation of cleaner production methods at industrial enterprises is the main focus of the Project and the current investment phase. Accordingly the FP will concentrate its efforts and resources on specific pilot/demo projects and delivering broader support for low cost cp investments to small and medium size enterprises currently discharging their effluents through the Vodokanals. Therefore these industrial enterprises and Vodokanals represent a major stakeholder group in the context of the current Project.

Apart from the priority interventions identified in the SAP, the FP will support the establishment and development of international cooperation within the Basin, and this objective also has its implications for the identification of relevant stakeholder groups.

While planning systems differ in each of the participating countries, formal government planning mechanisms involving ministries, local administrations, research institutions and parastatals, were supplemented through the creation of the NGO Forum, supported by the Dnipro NGO Network.

In order to ensure the continuation of this broad stakeholder involvement the Project will also rely on the Dnipro Council in 2003. This structure will continue as an advisory body to the existing bodies including the proposed IDBC and its future Secretariat.

The FPis managed by the respective Dnipro Countries NPMCs set up to ensure broad involvement of all relevant of stakeholders, to include interested individuals and organizations that represent key players influencing the national decision-making process with regard to the Dnipro Basin.

The Dnipro SAP also provides the following guidance respecting actions to be taken to enhance public participation and ownership.

- The enhancement of national legal systems to support public initiatives and ensure the active and effective participation of NGOs in the implementation of the SAP;
- The acknowledgement and consideration of the interests of the public, as a matter of priority, in the process of formulation and implementation of local environmental action plans;
- The monitoring of SAP implementation by the public;
- Dissemination of information on the state of the Dnipro Basin and participation of the NGOs in this process;
- The integration of environmental considerations into educational programs adopted in the riparian countries, and active involvement of the NGOs in the promotion of IBRM.

The involvement of the stakeholders in the process will essentially be along the lines of *information, consultation and active participation* and will be defined further in the Work Plan of the project. The Stakeholder Involvement Plan (SIP) thus represents an integral part of the project document that is intended to be referred to on a regular basis and updated, in consultation with the stakeholders, as the project advances.

The SIP serves to:

- facilitate the involvement of all stakeholders in the basin management process at the national and international level;
- acknowledge the fact that the SAP implementation process meets the interests of the overwhelming majority of stakeholders in the Dnipro Basin;

- ensure that program interventions and processes integrate public participation and stakeholder inputs;
- support systematic mainstreaming and engagement of stakeholders in the process to maximize efficiency and consistency;
- provide a means of defining and targeting specific capacity-building activities that will support effective engagement processes, such as providing access to information and capacity-building;
- institutionalize a mechanism to solicit inputs and insights and sharing of information; and ensure meaningful participation and enlightened involvement in local, national and regional activities.

Target beneficiaries

The primary target beneficiary of this project is the population of the Dnipro Countries, and in particular the people living in the Dnipro Basin. The Basin population should benefit from a more active role in the management of the Dnipro Basin and from the implementation of a co-ordinated programme of improved policies, regulatory tools and investments for improving its management. These in turn, are expected to lead to improved water quality, rehabilitation of the renewable natural resources of the River, protection of its biological diversity and protection of human health. It should provide better opportunities to present and future generations to use the Basin environment in a sustainable manner and to develop a sounder basis for economic development. Populations in the coastal zone of the neighboring Black Sea should also benefit from major economic, social and ecological benefits of the decrease in eutrophication and chemical pollution of the Sea.

The specific target beneficiary group comprises small and medium industrial enterprises that do not have their own effluent treatment capacity and therefore rely on wastewater treatment services provided by the Vodokanals. The implementation of pilot/demo projects would help improve the performance of pilot industries, including process-related and environmental management aspects, thereby contributing significantly to their overall economic viability. This, in turn, would help relieve pressures currently experienced by Vodokanals and improve ambient water quality in the locations of discharge outfalls, and thus abate/minimize adverse effects to human health.

This would provide an excellent and convincing example for other similar industries located within the Dnipro Basin by demonstrating for them a broad range of economic and environmental gains that might be achieved through the introduction of cleaner production practices.

In the short-term, governments and institutions will benefit from institutional strengthening as a result of the establishment the basin management bodies, networking, training programmes and exchanging monitoring information. Clean production technologies should facilitate the release of vital credits for reduction of pollution load as well as improving waste management and stimulating the development of key sectors.

The target beneficiaries are:

- The Governments of Belarus and Ukraine including the resident population of the Dnipro Basin (37 million) who benefit from the passage of harmonized legislation which will regulate waste discharges, introduce monitoring systems, provide financial incentives, transparent tariffs and enforcement policies;
- The wider population of Belarus and Ukraine who will benefit from improved water quality and supply, enhanced fishery resources, recreational opportunities and strengthened protection and management of natural habitats;
- The coastal population of the Black Sea who benefit from improved fisheries, tourism, recreational opportunities, and ecosystem and public health;

2. STAKEHOLDER INVOLVEMENT IN PROJECT CONCEPTUALIZATION AND DEVELOPMENT

On 17 July 2007, the Environment Ministers of Belarus and Ukraine signed the Joint Ministerial Declaration on Further Development of Cooperation on the Protection of the Dnipro Basin and approved the SAP. This action reaffirmed the commitment of the two countries to the strategic approach set out in this project document.

The Dnipro SAP provides a sufficient level of consultation and dissemination of information, and encourages the active involvement of the public in the decision-making process through, *inter alia*, the participation of representatives of citizen groups in the Dnipro Council and support of the Dnipro NGO Network.

According to the SAP, the stakeholder involvement as well as public and NGOs is an important part of the process of environmental rehabilitation of the Dnipro Basin at the regional, national, and local levels.

1. The regional level focuses on coordination of actions across the whole Dnipro Basin, and is represented by the Dnipro Council and the NGO Forum, supported by the Dnipro NGO Network.
2. National level covers the process of enhancing the legislative framework and strengthening the institutional capacity for wider stakeholder involvement in the monitoring and public control of SAP/NAP implementation.
3. At the local level, the active involvement of local administrations, private sector and the general public will be a prerequisite to the successful implementation of practical environmental actions.

The Full Project has been prepared with active involvement of relevant stakeholders in the review and consultation process, which has comprised the following levels:

- Regional level: The FP preparation process has been underpinned by a common strategy set out in the earlier PDF B Project Document as endorsed by the Dnipro Program SC. The PDF B and its successor PIF phase supported 6 international workshops where national inputs were discussed and adjusted to bring greater consistency with a common basin management strategy, which includes a specific provision aiming to promote and support regional cooperation in the Dnipro Basin through the establishment of an appropriate legal and institutional framework.
- National level: During the PDF B/PIF phase, 10 public events (including 7 meetings/workshops/seminars were held to discuss various aspects of cleaner production), attended by senior representatives of relevant government, research institutes and NGOs. The outcomes and resolutions from these meetings were incorporated in the reports produced for each project component and subsequently reviewed/endorsed at the national level by the NPMCs in order to make sure that they are consistent with the country's priorities.
- Local level: At this level, the stakeholder involvement process consisted of meetings and consultations with the representatives of local authorities, Vodokanals, small local industries and non-governmental organizations in order to identify key issues and sites to be included in the Full Project. As part of the selection process for suitable candidate industries to be involved in the pilot/demo projects, the PMU organized visits to 10 cities/towns in Belarus and Ukraine and held 7 public events (roundtable meetings, workshops, seminars) in order to ensure maximum participation of all local stakeholders.

As part of the PDF B/PIF phase, IW:LEARN experts were invited to provide assistance in modifying and upgrading the Dnipro Program website designed to publicize project activities and outputs. A PMU representative took part in the Regional IT Workshop organized and held under the IW:LEARN Project in Mombasa, Kenya, in 2006, in order to receive training in the use of website management and information sharing tools offered for GEF International Waters Projects. The existing Dnipro Program website (www.dnipro-gef.net) has been kept up-to-date and was rated among the top five International Waters project websites at the 2007 GEF Fourth Biennial International Waters Conference in Cape Town, South Africa.

Furthermore, in order to disseminate information about the project activities and ecological status of the Dnipro Basin, the PMU has produced bilingual (English/Russian) Dnipro Program CDs containing all project reports produced during the Dnipro Program Phase 1, including the SAP and draft NAP documents for the three riparian countries. Copies of this CD have been extensively distributed among target stakeholders and broader audiences in Russia, Belarus and Ukraine.

3. STAKEHOLDER IDENTIFICATION AND INVOLVEMENT IN PROJECT IMPLEMENTATION

The Dnipro SIP refers to the "Stakeholder" as the legal or natural person, group or institution, who has an interest in the Dnipro Basin, has influence or can influence in its programmes and decision-makings, and is affected directly or indirectly by decision makings.

The document was prepared through the identification of the stakeholders that have been involved as partners in past Programme activities, including those who played critical roles during the negotiations and consultations undertaken thus far in the development of the current Project. Results of stakeholder identification and involvement are described in the following categories, levels and types of involvement.

Levels of involvement

The Dnipro SIP is disaggregated into three levels: Regional (Dnipro Basin), national, and local (Sub-national)

Regional level: The regional level is important as it provides the framework and possibilities for cooperation and unity throughout. This level is the most effective and most appropriate level for dialogue. The establishment of dialogue platforms arranged at this level – including municipalities, regional environmental inspectorates, water suppliers, local businesses, NGOs and other stakeholders – operates as an ideal first step towards building the new forms of partnership and co-operation.

Stakeholder involvement at the regional level has the following functions:

- Provides a framework for cooperation and unity;
- Stimulates action at other levels;
- Acts as a platform for dialogue;
- Dissemination of new methodologies and providing guidance;
- Information and advice;
- Monitoring and evaluation.

National level: This level is the most convenient level for governments at different levels and NGOs to come together at the sub-regional level to discuss their different motivations for engaging in the SAP implementation process and to define who can contribute what. At the national level, policy and economic decisions will be made, so clearly there is a need for SIP involvement at this level. The participatory process at the national level needs to be included as it is recognized that it brings benefits to the overall process. At this level one can build upon progress made to date – and plans for – the implementation of the Aarhus and Helsinki Conventions as well as the Water Framework Directive.

A SIP for the national level will help with:

- Defining roles and responsibilities;
- Sharing best practices;
- Influencing where policy and economic decisions are made;
- Building partnerships between national authorities and NGOs;
- Acting as the facilitator of up-stream and down-stream information on decision-making;
- Building on implementation of the Aarhus Convention;
- Organizing public awareness campaigns.

Local level (sub-national), refers to local communities and local administrations. The local level is where implementation really takes place, where policies adopted elsewhere are actually implemented in the regions, by local authorities, local stakeholders, local practitioners, local NGOs. It is at the local level that groups most directly affected by environmental decisions actually reside. There is enormous need for capacity building, training, education and awareness raising work at this level. Most local agencies and actors are largely unaware of the implications of the SAP and are also largely unaware of the opportunities it presents.

Strategies of the local level build on these functions:

- Awareness raising among communities;
- Creating partnership between local administration and local communities;
- Mobilization of the media;
- Training and education programmes;
- Capacity building of information centers and networking.

All three levels are interconnected and are collectively needed in order to ensure each level is successful. There are differences between the levels, regarding who the stakeholders are, their capacity, what types of activities are required, timeline, management and coordination.

Types of the involvement

Stakeholder involvement is the process of ensuring that those who reside in the area and/or have an interest or stake in a decision are involved in the decision making process. It is an ongoing process which can improve communication, interaction and joint decision making between different stakeholders and the public. It includes both outreach (awareness rising) and inputs (consultation and collaboration). Through this process, all parties become better informed about the range of views on proposals and issues. A good stakeholder involvement process will result in better decisions that are more sensitive and responsive to public concerns and values.

There are different types of participation in this process ranging from the passive to the pro-active. The different levels of participation are not mutually exclusive and build on each other. Different levels of participation can be useful at different stages, depending on the timing of public participation and that of the planning process, the context, available resources, objectives, and benefits.

The types of stakeholder involvement envisaged in the Dnipro SIP are:

1) *Information*: This is the foundation of SIP in which decision makers actively disseminate information or stakeholders access information upon request.

2) *Consultation*: This is the lowest level of public participation if we consider information supply as being the foundation. Decision-makers make documents available for written comments, organize public hearings or actively seek the comments and opinions of the public through the conduct of surveys and interviews. They request and receive stakeholder feedback and due account is given to their comments.

3) *Active participation*: This is a higher level of participation where stakeholders actively engage in the decision-making and policymaking process. Active involvement implies that stakeholders participate actively in the planning process by discussing issues and contributing to their solutions.

Stakeholder categories.

6 categories which constitute the main stakeholder groups relevant for the Dnipro Basin, involved to the Programme can be identified.

Stakeholder categories

#	Category	Stakeholder	Type of involvement
1	Donors	GEF UN Agencies - UNOPS, - UNDP Other - EU Water Governnance Program - Coca-Cola, - Bavarian State Government - IW:LEARN	 Active participation Consultations Information
2	Government (national level)	***Ukraine:***	
		- Ministry of Environmental Protection of Ukraine - State Environmental Inspectorate of the Ministry of Environmental Protection of Ukraine; - Cabinet of Ministers of Ukraine; - Parliament of Ukraine;(Committee on the Environment) - Ministry of Economy of Ukraine; - State Committee on Water Economy of Ukraine; - Ministry of Justice of Ukraine; - Ministry of Health of Ukraine; - Ministry of Municipal Services of Ukraine - Scientific and Research Construction and Technological Institute; - Ministry of extraordinary situations and protection of population against the Chernobyl disaster - Scientific and Research Hydrometeorological Institute	
		Belarus:	
		- Ministry of Natural Resources and Environmental Protection of Belarus; - Central Scientific Research Institute on Complex Use of Water Resources - Centre of International Environmental Projects, Certification and Audits; - Ministry of Industry of Belarus; - Ministry of Economy of Belarus; - Ministry of Health of Belarus.	Active participation
3	Government (local level)	- State municipal administrations in Ukraine, Belarus; - State regional committees on environmental protection in Ukraine and Belarus; - Municipal Treatment Plants (Vodokanals) in Ukraine: - Kyiv Vodokanal; - Dnipropetrovsk Vodokanal; - Zaporizhya Vodokanal; - Chernihiv Vodokanal; - Zhytomyr Vodokanal; - Lutsk Vodokanal; - Kherson Vodokanal; - Municipal Treatment Plants (Vodokanals) in Belarus: - Rechitsa Vodokanal;	Consultations Active participation

<table>
<tr><td></td><td></td><td colspan="2">- Minsk Vodokanal;
- Mogilev Vodokanal;
- Homel Vodokanal.</td><td></td></tr>
<tr><td rowspan="5">4</td><td rowspan="5">Industrial Enterprises</td><td colspan="2">Belarus</td><td rowspan="5">Active participation</td></tr>
<tr><td>Rechitsa Vodokanal</td><td>JSC Rechitsa Textile Plant</td></tr>
<tr><td>Minsk Vodokanal</td><td>1. MUPE Minsk City Dairy Plant No. 3
2. RUPE Minsk Vavilov’s Mechanical Plant
RUPE Minsk Motor Plant</td></tr>
<tr><td>Mogilev Vodokanal</td><td>3. PUE “Metis Metal Works”, BelOG Group
PUE “Typhlos”, BelTIS Group</td></tr>
<tr><td>Gomel Vodokanal</td><td>4. RUE “Gomel Measurement Instrumentation Plant”
PUPE Veneer Plant</td></tr>
<tr><td></td><td rowspan="8"></td><td>JSC Mosyr Oil Refinery</td><td>5. JSC Mosyr Oil Refinery
Elsk Primary Processing Site, PUE “Mosyr Dairy Plant”</td><td></td></tr>
<tr><td></td><td colspan="2">Ukraine</td><td></td></tr>
<tr><td></td><td>Dnipropetrovsk Vodokanal</td><td>1. JSC Dnipro Metis Metal Works
2. JSC Dnipro Press Equipment Plant
3. JSC Forming Roll Plant
4. JSC “Oleina” Oil Extraction Plant
5. JSC Lower Dnipro Pipe Plant
JSC Dnipropetrovsk Chemical Product Plant</td><td></td></tr>
<tr><td></td><td>Zaporizhzhia Vodokanal</td><td>Arkadia Ltd. and Atlantida Private Company</td><td></td></tr>
<tr><td></td><td>Chernihiv Vodokanal</td><td>JSC Chernihiv Dairy Plant</td><td></td></tr>
<tr><td></td><td>Zhitomyr Vodokanal</td><td>JSC Zhitomyr Butter Plant “Rud”</td><td></td></tr>
<tr><td></td><td>Lutsk Vodokanal</td><td>JSC SKF Ukraine</td><td></td></tr>
<tr><td></td><td>Kherson Vodokanal</td><td>Rodych Dairy Plant Ltd.</td><td></td></tr>
<tr><td>5</td><td>National and international experts/ Research Institutes</td><td colspan="2">Ukraine
Ukrainian Academy of Science
- Institute of Hydrobiology of NASU;
- Institute of Geography of NASU;
- Institute of Colloid and Water Chemistry of NASU
- Kyiv Taras Shevchenko University
-Scientific and Research Institute of Environmental Problems(Kharkiv)</td><td>Active participation</td></tr>
<tr><td></td><td></td><td colspan="2">Belarus
- Belarus Academy of Science
- Institute of Problems of Usage of Natural Resources and Environment;
- Zoological Institute;
- Institute of Experimental Botanic</td><td></td></tr>
</table>

		- Belarus State University	
6	NGOs[27]	- 10 Ukrainian NGOs, coordinated by the Institute of Ecology "INECO", Kyiv - 10 Belarus NGOs coordinated by NGOs "Ecodom" and "Ecopravo", Minsk - 10 Russian NGO coordinated by NGO “Erica”, Bryansk	Active participation Consultations Information (Russia’s “Erica” will be kept informed.
7	School students, educational insitutions		Information, participation

[27] NGOs – members of the Dnipro NGO Network, participants of the Dnipro NGO Forum

4. STAKEHOLDER INVOLVEMENT PLAN

Programme Management

Committees	Key Stakeholders (categories)	Major Role	Involvement mechanism	Level
Steering Management Committee	Donors Government (National level)	- Strategy development and overall project management; - Reviewing project budget and work programme; - Developing mechanisms designed to support cooperation and interaction with public and private sector, and other regional non-governmental organizations; - Identifying/mobilizing additional funding sources for those project activities that are not supported by GEF; - Ensuring linkages and synergies with other GEF projects in the Black Sea Basin	Regular meetings	International
Joint Management Committee	Government (National level)	- Providing recommendations to PMU concerning coordination and management of project and its activities; - Providing support and assistance required to establish appropriate project implementation mechanisms, especially where transboundary consultation and joint decision-making processes are involved; - Discussing and approving annual work plan and budget for subsequent approval by the SC; - Facilitating consultations with executing organizations	Regular meetings	International
NPMCs	- Governments national level and local level - National and international experts / Research Institutes - NGOs	NPMC in each Dnipro Basin country facilitates national implementation of strategic project objectives formulated by the SC	Regular meetings	International

Program Activities

Component 1. Introduction of Cleaner Production methods

Key Stakeholders	Major Role or Function	Involvement mechanism	Level
1	2	3	4
Donors	- Provision of technical assistance in a specified area. - Inputs to the formulation of development priorities for the Dnipro Basin countries. - Involvement in the design and implementation of training programmes - Organizational/technical and financial support for specific actions - Technical assistance in establishing the National CP Centres	- Interagency agreements - Organization of training programmes - Transfer of experience - Dissemination of project information through official websites and information bulletins	International
Governments (national level)	- Managing the provision of technical assistance in line with the national environmental policy priorities - Managing and reviewing the implementation of Component 1 - Managing/coordinating the preparatory process for project meetings, participating in training events - Supporting the introduction of CP methods - Where necessary, amending existing laws/regulations or drafting new laws/regulations, to include national action programmes (plans) - Organizational/technical, informational and financial support for the international and National Cleaner production working groups	- Convening the meetings of project management bodies (NPMC; SC; IDBC; Dnipro Council[28]; national and Regional Working Groups) - Organising and attending project meetings, workshops, training courses - Ensuring the effective use of legislative initiative in relation to this project component - Preparing letters to request/mobilize support for CP initiatives	International & National
Government (local level)	- Participation in meetings, training events, workshops, conferences - Supporting the implementation of the Project Component 1 at the local level - Developing local regulations for effluent/pollutant discharges to municipal sewers - Introducing incentives/exemptions for pilot enterprises - Maintaining control of effluent discharges from pilot enterprises - Provision of administrative enforcement tools for industrial enterprises[29]	- Implementing regulatory reform - Meetings/sessions of local councils and executive committees	National & Local
National and international experts/	- Developing concepts and design documentation for wastewater treatment projects featuring the use of new treatment methods and development of on-site treatment capacity	- Participation in training events - Meetings of CP working groups, both international and	International, National

[28] Once it has been established
[29] More typical for Belarus

Research Institutes	- Providing scientific advise and support for wastewater treatment projects - Contributing to the development of new laws/regulations and amendment of existing laws/regulations, including national action programmes and plans. - Participation in meetings, training events, workshops, conferences at the national and international level - Undertaking other research activities of relevance to the project	national - Workshops, meetings, conferences	
1	2	3	4
Industrial enterprises	- Implementing CP actions, including a comprehensive environmental audit process - Formulating corporate environmental protection policy and programme - Financing the implementation of planned actions - Participating in the national investment and low-interest credit programmes - Participating in training activities under Component 1 - Implementing low-cost improvements and capital construction projects - Establishing/maintaining local monitoring procedures for effluent discharges - Ensuring the completion of all relevant permitting/endorsement procedures at the local level	- Implementing CP methods - Providing expert advise and consultation on CP methods - Training activities - Acquisition of required equipment	Local
NGOs	- Acquisition of data and information on the status and progress of CP projects - Participation in meetings, training events, workshops, conferences - Undertaking independent surveys and reviews with regard to the implementation of CP methods at industries - Providing information to the general public on the CP methods and convening a special Dnipro Day dedicated to the CP practices	- NGO forums, roundtables, public hearings - Contribution to the IDBC activities - Project website, - Information bulletins, - Electronic posting - The Dnipro Day Event	International, National
school students, educational insitutions	- Participating in the awareness raising project on CP practices	- Awareness raising activities - The Dnipro Day Event	

Component 2. Improvement of transboundary monitoring

Key Stakeholders	Major Role or Function	Involvement mechanism	Level
Donors	- Provision of technical assistance in a specified area. - Inputs to the formulation of development priorities for the Dnipro Basin countries. - Assistance and support in organizing and maintaining information exchange at the international level - Involvement in the design and implementation of training programmes - Organizational/technical and financial support for TMP implementation - Supply of required equipment	- Interagency agreements - Training programmes - Transfer of experience - Dissemination of project information through official websites and information bulletins	International

1	2	3	4
Governments (national level)	- Managing the provision of technical assistance in line with the national environmental policy priorities - Managing and reviewing the implementation of Component 2 - Organizing/convening meetings at the national level; participating in meetings, training events, workshops and conferences at the international level, and managing/coordinating the preparatory process for project meetings, both national and international - Supporting the implementation of activities planned under the Component 2 - Ensuring inter-agency coordination of TMP activities and information exchange between the agencies [30] - Where necessary, amending existing laws/regulations or drafting new laws/regulations, to include national action programmes (plans) - Organizational/technical, informational and financial support for the international and National working groups on transboundary monitoring	- Convening the meetings of project management bodies (NPMC; SC; IDBC; Dnipro Council; national and Regional Working Groups) - Attending training courses - Preparing letters to request/mobilize support for TMP implementation	International, National
Government (local level)	- Involvement in the management of technical assistance programme - Ensuring the TMP implementation at the local level, provision of support for monitoring process - Coordinating the TMP implementation at the local level, interagency coordination and information exchange - Installation and proper maintenance of supplied equipment	- Orders and resolutions issued by ministries and agencies - Participation in meetings, training events, workshops, conferences	National, local
National and international experts/ Research Institutes	- Developing concepts and methodologies relating to the introduction/application of new water quality criteria and diffuse pollution assessment tools, etc. - Providing scientific advise and support for the TMP implementation, ensuring the sustainable operation of reference laboratories - Contributing to the development of new laws/regulations and amendment of existing laws/regulations, including national action programmes and plans - Participation in meetings, training events, workshops, conferences at the national and international level - Undertaking other research activities of relevance to the project	- Participation in meetings, training events, workshops, conferences - Research programmes and preparation of reports	International, National
NGOs	- Acquisition of data and information on the status and progress of TMP implementation - Participation in meetings, training events, workshops, conferences - Undertaking independent surveys and reviews with regard to the TMP implementation	- NGO forums, roundtables, public hearings - Contribution to the IDBC activities - Project website, - Information bulletins, - Electronic posting	International, National

[30] This is more relevant for Ukraine

Component 3. Harmonization of legislation

Key Stakeholders	Major Role	Involvement mechanism	Level
Donors	- Involvement in the design and implementation of training programmes - Focusing projects activities/efforts towards greater consistency with relevant international standards - Facilitating the translation of EU documentation (laws, guidelines and manuals) into Russian and Ukraine - Facilitating the preparation, publication and circulation of information materials	- Interagency agreements - Training programmes - Transfer of experience - Dissemination of project information through official websites and information bulletins	International
Government (national level)	- Managing the provision of technical assistance in line with the national environmental policy priorities - Participation in development and implementation of national legislative plans, - Participation in drafting national laws and regulations designed to enable/support the legislative convergence process - Participating in the FWD implementation training courses in any of the new EU member countries - Participating in the preparation of basin management programmes, methodical documents and reports presenting the monitoring results for the legislative convergence process - Organizational/technical, informational and financial support for the international and National working groups on legislative harmonization	- Convening the meetings of project management bodies (NPMC; SC; IDBC; Dnipro Council; national and Regional Working Groups) - Attending training courses - Meetings of working groups on legislative harmonization, both national and international	International, national
National and international experts/ Research Institutes	- Monitoring data review and processing, preparation of analytical reports on various aspects of legislative harmonization process - Participating in the FWD implementation training courses in any of the new EU member countries - Contributing to the development of new laws/regulations and amendment of existing laws/regulations, including national action programmes and plans - Undertaking other research activities of relevance to the project	- Training events, - Meetings of working groups on legislative harmonization, both national and international - Workshops, conferences	National
NGOs	- Acquisition of data and information on the status and progress of legislative harmonization - Participating in the FWD implementation training courses in any of the new EU member countries	- NGO forums, roundtables, public hearings - Contribution to the IDBC activities - Project website, - Information bulletins, - Electronic posting	International

Component 4. Institutional Framework for Institutional Cooperation

Key Stakeholders	Major Role	Involvement mechanism	Level
Donors	- Providing expertise and advise on cooperative management of international waters - Providing expertise and advise during the preparation and negotiation of the Dnipro Basin Agreement - Involvement in the development of statutes and other founding documents for the proposed basin management bodies - Providing support for the following events: Dnipro Day, NGO forums, roundtable meetings etc.	- Interagency agreements - Involvement in the IWG Institution Building activities - Participation in NGO forums, roundtables, IWG meetings - Attending the IDBC and Dnipro Council meetings in the capacity of observers - Participating in the Dnipro Day celebrations and awareness raising projects for school students - Dissemination of project information through official websites and information bulletins	International
Government (national level)	- Managing the provision of technical assistance in line with the national environmental policy priorities - Facilitating the operation of the IWG on Institution Building - Bringing the Dnipro Basin Agreement towards signing - Preparing all relevant statutory and founding documents required to facilitate the establishment and sustainable operation of international basin management bodies - Developing and establishing the procedures designed to ensure and encourage the involvement of public representatives/observers in the activities of basin management bodies - Organizing and attending the IDBC and Dnipro Council meetings - Provision of information to NGOs for review and discussion	- Convening the meetings of project management bodies (NPMC; SC; IDBC; Dnipro Council) - Involvement in the IWG Institution Building activities - Representing the Government during various NGO forums, roundtables, public hearings	International, national
Government (local level)	- Provision of information on local situation, advise/consultation during the IDBC meetings to clarify/resolve problem issues - Supporting the organization of public hearings, Dnipro Day event, and educational/awareness raising projects	- Membership to the IDBC - Meetings of local councils and executive committees - Public hearings, roundtables and other events convened under the Project Component 4	National, local
National and international	- Provision of expertise and advise during the IDBC meetings to clarify specific issues relating to the ecological status of the Dnipro Basin	- Membership to the IDBC - Providing expert inputs to	International, national

experts/ Research Institutes	- Providing expert advise and scientific rationale for the educational and awareness raising projects	the educational/awareness raising projects, NGO forums, Dnipro Day events etc.	
1	2	3	4
NGOs	- Involvement in decision-making process during the IDBC and Dnipro Council meetings (in the capacity of observers) - Public presentation of the draft Agreement, identification of priorities as perceived by the general public - Organizing and convening public hearings and roundtables - Contributing to the awareness raising initiatives geared to build environmental awareness among the people living in the Dnipro Basin: o Designing and implementing the Dnipro Day event o Designing and implementing an awareness raising project o Acquiring and distributing information about the activities planned/implemented under the Project Component 4	- Membership to the IDBC, Dnipro Council; - NGO forums, public hearings, roundtables; - Awareness raising projects for school and university students - The Dnipro Day Event - Distributing information about the Project and its Component 4 among the general public	International, national, local
School and university students, local public	- Building personal understanding and awareness on priority environmental issues faced in the Dnipro Basin and potential options to address them	- Involvement in the awareness raising project, - Involvement in the Dnipro Day events and cleanup actions along the Dnipro river banks	Local

5. THE MAJOR MECHANISMS OF STAKEHOLDER INVOLVEMENT.

The DBC are planning to establish the IDBC which will be assisted by a Secretariat. In support of this, as advisory bodies there will be the Dnipro Council, with representatives from central and local government, scientific research and advisory institutions, industry, NGOs and community groups. In addition there will be NGO representation via the NGO Forum and the Dnipro NGO Network. The NPMCs are designed to ensure that all relevant stakeholders are involved in decision-making at the national level.

National Project Management Committee (NPMC). The NPMC comprises the National Project Coordinator, who also acts as Committee Chairman, and the representatives of relevant government agencies and NGOs identified through consultation with the Deputy Environment Minister authorized to serve in the SC. The NPMC is designed to ensure a broad stakeholder representation and cross-sectoral involvement in the national decision-making process in the Dnipro Basin.

International Dnipro Basin Commission(IDBC) The IDBC will invite the representatives of other interested countries, international agencies and non-governmental organizations to take part in the Commission's work in the capacity of observers, coordinate activities with Government Commissions and Plenipotentiaries responsible for the implementation of bilateral agreements on cooperation, joint management and protection of transboundary water bodies. It will also facilitate the establishment of a permanent consultative and advisory body in the form of the Dnipro Council, and specify the procedural arrangements for its operation, promote and develop cooperation with international organizations and other regional partners on issues relating to the sustainable management of natural resources and environmental protection in the Dnipro Basin;

Dnipro Basin Regional Council. (Dnipro Council) The Dnipro Council will continue to function as an advisory body to SAP management bodies, including the proposed IDBC and its future secretariat.

According to the Dnipro Council by-laws, each riparian country is represented by 23 members drawn from the Natural Resources and Environment Ministries, leading scientific and research institutions, other government bodies, private sector, industry, local self-government bodies, and NGOs.

The Council may also invite guest observers to their meetings in an effort to obtain a wider range of information and counsel.

Regional NGO Forum (NGO Forum) and Dnipro River Network. The Dnipro Countries NGOs are now more experienced and have better possibilities for further development. They are ready for further cooperation either independently or in the framework of future IFO interventions in the Dnipro basin. The Dnipro River Network currently unites 30 NGOs from the riparian countries and this number is constantly growing. This structure is aimed at strengthening transboundary cooperation among environmental NGOs and monitoring public and private activities in the environmental sector.

The PMU plans to convene the NGO Forum at an early stage of the Project implementation in order to discuss the text and provisions of the draft Dnipro Agreement. This Forum will identify a coordinating organization that will convene a series of public consultation events and roundtable meetings as part of the broad public consultation process launched to discuss the draft document among all relevant stakeholders.

Regional and national expert groups will be established in order to provide specific inputs to each project component and ensure that proposed strategic decisions relating to various aspects of environment protection and management are scientifically sound and technically feasible.

The involvement of local public and school/university students will be facilitated through the organization and implementation of ***awareness raising projects, public consultation processes and roundtable meetings***. Furthermore, the Project will join with Coca Cola in the region and organize the celebration of Dnipro Day as a special event designed to promote environmental awareness and the CP concept among the general public. The event will make a specific effort to target young people, school and university students from the Dnipro Countries and will aim to ensure that ecosystem conservation values and environmental rehabilitation issues are promoted among this population group.

6. SOCIAL ISSUES

The successful implementation of the Project is expected to lead to improved drinking water quality, which, in turn, will result in better human health, safety and prosperity.

The project will aim to ensure that the environment and water resources in the Dnipro Basin are properly valued, managed and protected, and that government bodies and civil society are aware of all the consequences of environmental degradation, and such awareness is expected to provide an effective impetus for the general public to take care of the environment and get involved more closely in environmental action.

The project will support greater mainstreaming of women, youth, and other sectors in the environmental and social development processes. This will be undertaken by ensuring the participation of local NGOs and inviting their recommendations on improving the status of basin resources, environmental quality; information dissemination and enforcement of local level regulations governing resource use.

Part V to X: OTHER ADDITIONAL INFORMATION AS REQUIRED BY THE SPECIFIC FOCAL AREA, OPERATIONAL PROGRAM, AND STRATEGIC PRIORITY

PART V. Dnipro River Basin Passport

DNIPRO RIVER BASIN PASSPORT					
Indicator		**Belarus**	**Russian Federation**	**Ukraine**	**For the basin in total**
1		**2**	**3**	**4**	**5**
Geography and Nature Resources					
Total area of the Basin - 511000 km^2, including:					
Catchments area (%)		22.9%	19.8%	57.3%	509000
Areas without drainage					2700 km^2
Administrative and Territorial Division					
Oblasts		5	6	19	30
Districts		62	81	242	385
Cities/towns		64	44	180	288
Townships		20	64	363	447
Rural settlements		11110	1260	15650	28020
Land uses in the Dnipro Basin					
Area of arable land	km^2	34000	43000	206000	283000
	(%)[31]	29.2	42.8	70.3	55.4
Forests	km^2	56600	31700	87100	175400
	(%)[1]	48.6	31.6	17.1	33.8
Wetlands	km^2	41900[32]	1809	4540	48249
	(%)[1]	36	1.8	1.6	9.4
Urbanised (built-up) area	km^2	4700	2000	11400	18100
	(%)[1]	4.0	2.0	3.9	3.6
Area of drained and irrigated land	km^2	20000	3800 / 400	25000 / 26000	48800 / 26400
	(%)[1]	17.2	3.8 / 0.4	8.6 / 8.9	9.6 / 5.2
Area of land contaminated by radio nuclides:	km^2	41640[33]	17061	54600	113301
	(%)[1]	35.8	17	18.7	22.3
Water bodies	km^2	400	600	11400	12400
	(%)[1]	0.3	0.6	3.9	2.4
Area of protected territories	km^2	3100	1300	3200	7600
	(%)[1]	3.0	1.3	1.1	1.5
Mineral Resources					

[31] in % to Belarusian, Russian and Ukrainian part of the basin accordingly
[32] including drained areas
[33] data of 2001, level of pollution of Cs-137 $\geq$1 Ku/km^2

1		2	3	4	5
Oil		+		+	+
Natural gas		+		+	+
Coal / brown coal		-	+	+	+
Peat		+	+	+	+
Potassium salts		+			+
Rock salt		+			+
Building materials		+	+	+	+
Ferruginous quartzite		+			+
Uranium ore				+	+
Iron ore			+	+	+
Manganese ore				+	+
Titanium / zirconium ore				+	+
Kaolin				+	+
Bentonitic clay				+	+
Population					
Total (in the basin) (2001)	Million people	6.3	3.6	22.2	32.1
	(%)[34]	19.4	11.1	68.5	
Urban population	Million people	4.60	2.40	14.92	21.92
	(%)[35]	73	66.7	67.2	68.3
Rural population	Million people	1.70	1.20	7.28	10.18
	(%)[5]	27	33.3	32.8	31.7
Average population density	People / km^2	54.1	35.8	76.2	63.1
Population growth	People / year	-25000[36]	-42800[37]	-222500[38]	-290300
Life expectancy	Years	68.1	66.7	69.1	67.97

Continuation of the Passport

Indicator		Belarus	Russian Federation	Ukraine
Economy				
Gross domestic product (GDP)[39]	billion US $	11.9	341.6	41.7
GNP growth (in % to previous year)		104.7	103.8	104.8
GNP by sector (%), by 2001	Industry	26.5	30.1	
	Agriculture	11.6	16.4	
	Services	39.9	38.8	
Industrial output growth				
Industry growth (in % to previous year), by 2002		105.9	104.3	107.0
Agriculture output growth				
Agriculture growth (in % to previous year), by 2002		101.8	102.2	102.1
Water resources and uses (the Dnipro Basin)				
Surface waters				
Internal flow (km^3/year)	Average annual	16.9	15.5	22.1
	Minimum (95%)	10.7	10.7	9.0
External inflow	Average annual	19.1	-	31.9
	Minimum (95%)	9.1	-	22.1

[34] in % to total population
[35] in % to total population living on the Belarusian, Russian and Ukrainian territory accordingly
[36] by 2000
[37] average for 1999- 2002
[38] average for 1995-2000
[39] by 2000, data concerns Dnipro countries, not the Dnipro basin

1		2	3	4
Flow discharge	Average annual	36.0	15.5	52.0
	Minimum (95%)	19.8	10.7	31.1
Hydrographic network	Total length (km)	45400	39500	78500
Groundwater				
Projected reserve	km^3/year	9.27	2.31	12.8
Explored reserve	km^3/ year	1.117	0.681	2.7
Groundwater abstraction (2000)	km^3/ year	0.687	0.379	1.03
Water resources				
Per capita	m^3/person	7580	2640	3520
Reservoirs	Number	102		564
	Water surface area (km^2)	345		688
	Volume (km^3)	1.044		43.8
Ponds	m^3/person	730		13283
	Number	93	180	12
	Water surface area (km^2)	0.164		1.8
Total annual freshwater consumption (2000)				
Total	km^3/year	1.040	0.715	8.87
Industry	(%)[40]	29.0	55.4	58.0
Agriculture	(%)[10]	8.7	15.0	14.9
Including irrigation	(%)[10]	0.4	0.4	9.7
Municipality	(%)[10]	43.8	28.2	22.1
Other sectors	(%)[10]	18.1		5.0
Wastewater discharge (2000)				
Point sources, including	km^3/year	0.818	0.425	5.6
Polluted waste waters			0.243	
Other characteristics				
Level of flow regulation (%)		0.1	3.0	22.0
Flow diversion to other basins	km^3/year	0.29	-	3.14
Water losses at transportation (2000)	million m^3/year	380	22.0	1660
Water protection expenditures (2000 г.)	million US	61. 5	2.4	25.5

Drinking water and sanitation coverage: DBCs estimates by type of drinking water and sanitation facilities (1990 and 2006)[41]

Indicator		Belarus		Russian Federation		Ukraine	
		1990	2006	1990	2006	1990	2006
Drinking water coverage, total (%)	Improved	100	100	94	97	-	97
	Piped into dwelling, yard or plot	-[42]	87	76	82	-	75
	Other improved	-	13	18	15	-	22
	Unimproved	0	0	6	3	-	3
Sanitation coverage, total (%)	Improved	-	93	87	87	96	93
	Shared	-	6	-	-	3	2
	Unimproved	-	1	13	13	1	5
	Open defecation	-	0	-	-	0	0
Biodiversity							

[40] in % to total water consumption

[41] Progress on Drinking Water and Sanitation: Special Focus on Sanitation. UNICEF, New York and WHO, Geneva, 2008.

[42] No data

Rare and endangered species				
Plant	number	214	22	
Vertebrate	number	97	26	
Invertebrate	number	85	7	

International Agreements in the Field of Environment Protection parties to which are Dnipro basin countries

Belarus
United Nations Framework Convention on Climate Change (UNFCCC), **Convention on Biological Diversity,** **Convention on Wetlands,** **Convention on Wetlands of International Importance Especially as Waterfowl Habitat,** **Convention on Long-Range Transboundary Air Pollution,** **Vienna Convention for the Protection of the Ozone Layer,** **Convention on Environmental Impact Assessment in a Transboundary Context,** **Stockholm Convention on Persistent Organic Pollutants,** **UN Convention on Climate Change,** **Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES),** **Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters,** **Declaration of the United Nations Conference on Environment and Development,** **NIS Agreement on Cooperation in the Field of Ecology and Environment Protection** **Agreement between Belarus and Russian Federation on cooperation in the fields of environmental protection.** **Agreement between Belarus and Ukraine on cooperation in the fields of environmental protection.** **Agreement between Belarus and Russian Federation on cooperation in the fields of use and protection of transboundary water bodies.** **Agreement between Belarus and Ukraine on cooperation in the fields of use and protection of transboundary water bodies**
Russian Federation
United Nations Framework Convention on Climate Change (UNFCCC), **Convention of the World Meteorological Organization,** **Convention Concerning the Protection of the World Cultural and Natural Heritage,** **Convention on Wetlands of International Importance Especially as Waterfowl Habitat,** **Convention on Long-Range Transboundary Air Pollution,** **Vienna Convention for the Protection of the Ozone Layer,** **Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal,** **Convention on Environmental Impact Assessment in a Transboundary Context,** **Stockholm Convention on Persistent Organic Pollutants,** **Convention on Biological Diversity,** **Convention of the Protection and Use of Transboundary Watercourses and International Lakes,** **Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter,** **Convention on the Protection of the Black Sea Against Pollution,** **Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES),** **Convention on the Transboundary Effects of Industrial Accidents,** **Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (observer status),** **Convention on Conservation of European Wild Fauna, Flora and Natural Habitats (observer status),** **Convention on the Conservation of Migratory Species of Wild Animals (observer status),** **Declaration of the United Nations Conference on Environment and Development,** **NIS Agreement on Cooperation in the Field of Ecology and Environment Protection** **Agreement between Russian Federation and Belarus on cooperation in the fields of environmental protection.** **Agreement between Russian Federation and Ukraine on cooperation in the fields of environmental protection.** **Agreement between Russian Federation and Belarus on cooperation in the fields of use and protection of transboundary water bodies.** **Agreement between Russian Federation and Ukraine on cooperation in the fields of use and protection of transboundary water bodies**
Ukraine
United Nations Framework Convention on Climate Change (UNFCCC),

Convention of the World Meteorological Organization,
Convention for the Protection of the Ozone Layer,
Convention Concerning the Protection of the World Cultural and Natural Heritage,
Convention on Wetlands of International Importance Especially as Waterfowl Habitat,
Convention on Long-Range Transboundary Air Pollution,
Vienna Convention for the Protection of the Ozone Layer,
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal,
Convention on Environmental Impact Assessment in a Transboundary Context,
Stockholm Convention on Persistent Organic Pollutants,
Convention on Biological Diversity,
The Convention of the Protection and Use of Transboundary Watercourses and International Lakes,
Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter,
Convention on the Protection of the Black Sea Against Pollution,
Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES),
Convention on Conservation of European Wild Fauna, Flora and Natural Habitats,
Convention on the Conservation of Migratory Species of Wild Animals,
Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters,
Declaration of the United Nations Conference on Environment and Development,
NIS Agreement on Cooperation in the Field of Ecology and Environment Protection
Рамочная Конвенция ООН об изменении климата (РКИК),
Agreement between Ukraine and Belarus on cooperation in the fields of environmental protection.
Agreement between Ukraine and Russian Federation on cooperation in the fields of environmental protection.
Agreement between Ukraine and Belarus on cooperation in the fields of use and protection of transboundary water bodies.
Agreement between Ukraine and Russian Federation on cooperation in the fields of use and protection of transboundary water bodies

Part VI. PTS pollution in the Dnipro river basin

The Project objective to reduce PTS pollution is based on available data showing current PTS water concentrations and information on volumes of PTS transboundary transfer. The availability of such information has assisted in the formulation of specific project objectives together with appropriate activities designed to ameliorate such pollution. At the same time the baseline information will serve as a reliable instrument for assessing success in reaching project objectives.

The main sources of PTS pollution as described in Part VII, section IV, were the subject of numerous field expeditions carried out in 1994, 1998 and 2001 [49,50,52]. Data on PTS in water and bottom sediments of the Dnipro estuary was also been taken into consideration [51,53].

Table 1. Average water concentrations of PTS in the transboundary areas of the Dnipro River basin

Pollutant	Transboundary area				BS
	RF-BR	RB-Ua	RF-Ua	Ua-BS	
BOD_5 (mg/l)	1,5-2,4[43]	1,9-3,2	1,7-2,9	3,7	
COD (mg/l)	14-27	22-71	17-31	23	
NH_4-N (mg/l)	0,16-0,50	0,25-0,74	0,18-0,26	0-2,6[44]	
NO_2-N (mg/l)	0,009-0,024	0,003-0,01	0,006-0,044	0,005-0,5	
NO_3-N (mg/l)	0,35-0,83	0,50-1,22	0,1-0,41	0-2,5	
PO_4-P (mg/l)	0,02-0,11	0,08-0,46	0,1-0,33	0,1-0,9-0,12	
Cu (μg/l)	3-7	2-10	1-9	4-6-9	102[45]

[43] Blue – data of international expeditions sponsored by IDRC in 2001
[44] Yellow – data of Final report of Joint Ukrainian – USA (4-th EPA division) project "Water Quality assessment and management in the Dnipro Estuary", 1998
[45] http://www.ecologylife.ru/ekologiya-chernogo-morya-2002/mikroelementnyiy-sostav-pribrezhnyih-morskih-i-poverhnostnyih-vod-kryima.html

Zn (μg/l)	2-29	1-30	1-37	6-9-16	185[51]
Cr (μg/l)	0-6	1-27	0-23	15	22[51]
Hg (μg/l)	0-0,2	0-0,3	0-0,07	0,1	0,13[51]
As (μg/l)	0-1	0-4	0-46	33	40[51]
Oil products (mg/l)	0,01-0,03	0,01-0,07	0,03-0,06	0,02-0,12	
Phenols (mg/l)	0-0,002	0,001	0	0,002	
Total HCH (μg/l)	-	0,014-0,019	0,035	0,0024	0,002[51]
DDT (μg/l)	-	<0.02	<0.02	0,002-0,02	

Notes: RF-BR, RB-Ua, RF-Ua, Ua-BS transboundary areas between Russia and Belarus, Belarus and Ukraine, Russia and Ukraine, Ukraine and Black Sea seaside accordingly; BS – Black Sea.

In summary, the available data from past expeditions shows high concentrations of PTS in waters and bottom sediments of the Dnipro River basin, including the estuary.

PTS danger levels for *biota* in decreasing order can be represented as follows: ***PAHs >> Hg > ΣPCB > As = Σ DDT >Σ HCH > Other heavy metals = Σ Clordane = Dieldrin***.

In addition, a Ukrainian-Belarusian study showed abnormally high levels of ***Σ HCH*** in biota and Dnipro River sediment, especially in the estuary [51].

Table 2. Average concentrations of PTS in bottom sediment of the Dnipro estuary emptying into the Black Sea

PTS	1994[46]	1998[50]	2001[49]	2002[51]
Heavy metals (μg/g)				
As	5-8	1-7	<10	
Se	0,5-1	1-1,2	-	
Hg	0,1-0,3	0,05-0,082	0,004	
Pb	25-100	2-35	<10	
Cd	0,5-3,5	0,5-2	0,1-1,6	
Total PAH (ng/g)	1200-5000	-	-	650[51]
PCBs and organochlorine pesticides (ng/g)				
Hexachlorobenzene	1,6-2	-	<0,4	
Total DDT	11-25	14	<2	
Total HCH	2-4	6	<2,7	
Total Chlordane	1-4	6	<2	
Dieldrin	0,2	6	<0,3	
Total PCB congeners	30-48	72	-	

The lack of information on concentrations of Short Chain Chlorinated Paraffins makes it impossible to assess their danger level and therefore monitoring Short Chain Chlorinated Paraffins in the TMP will be given a high priority(see, Part VII, section IV).

Data on mass transfer is only available for some PTS, see table below:

Transboundary area	Mass transfer (kg/day)			
	ΣCOP	Oil products	As	Hg
RF-Ua	0,950	910	123	0,5
BR-Ua	1,014	10670	177	7,4
Ua-BS	0,211	1504	183	0,68

Exceedingly large outputs of organochlorine pesticides, oil products, mercury and arsenic are also found in the catchments areas of main Dnipro tributaries (Pripyat, Desna, Seym) all of which are transboundary basins as well. Large mass transfers of PTS in the Ua-BS transboundary sector is evidenced by their high concentration in local biota and accumulation in bottom sediments of Dnipro reservoirs.

As with Short Chain Chlorinated Paraffins, the lack of data on mass transfer of Polycyclic Aromatic Hydrocarbons and Polyclorinated biphenyls makes it impossible to assess their danger levels thereby rendering them a similar priority for the TMP.

[52] Green - Organic and Heavy metals Contaminants in Fishes and Dated Sediment Cores from the Dnipro River 1994. Report prepared for the IDRC by Department of fisheries and oceans, Freshwater Institute, 501 University Cres., Winnipeg MB R3T 2N6 Canada, December 1, 1995.

Part VII. Pilot Projects Implementation Strategy

Pilot/demo projects for introducing cleaner production methods will be implemented at enterprises that are customers of local Vodokanals. Therefore one of the key criteria adopted within the framework selecting a candidate enterprise was the relative contribution of this enterprise to the scope and scale of problems faced by a given Vodokanal. An expert team representing the Dnipro Program visited and inspected 7 Vodokanals in Ukraine (located in Dnipropetrovsk, Zhitomyr, Zaporizhzhia, Kyiv, Lutsk, Chernihiv, and Kherson) and 5 Vodokanals in Belarus (located in Gomel, Minsk, Mogilev, Rechitsa, and a waste water treatment plant (WwTP) site at the Mosyr Oil Refinery receiving domestic sewage from the towns of Mosyr, Kalinkovichi and Yelsk). In the Dnipro Program SAP Priority Investment Portfolio, all these Vodokanals were identified as major pollution Hot Spots in the Dnipro Basin whose impacts have a transboundary dimension.

1. ISSUES FACED BY VODOKANALS AND THEIR CONSEQUENCES

The following 5 issues appear to be most serious and critical in terms of their implications to the operational performance of a Vodokanal:

Issue 1. Wastewater inflows received at the WwTPs are characterized by high levels of BOD, COD and nutrient compounds, mainly nitrogen and phosphorus. The overwhelming majority of existing wastewater treatment plants have no capacity to provide proper treatment to raw sewage received, and the direct consequence of this situation is that Vodokanals often have problems with environmental regulators due to their non-compliance with existing effluent quality standards at the point of discharge to a receiving water body.

Based on survey results, all the visited Vodokanals were categorized as to the relative urgency of this issue. In decreasing order of severity they are:

- **Ukraine**: Kherson > Kyiv > Dnipropetrovsk > Lutsk > Zhitomyr = Chernihiv > Zaporizhzhia;
- **Belarus:** Rechitsa > Mosyr > Minsk = Gomel > Mogilev.

This issue is caused by the following factors:

1. All existing municipal WwTPs have been designed to receive both domestic and industrial effluents. A typical WwTP design is intended to handle a combined effluent flow comprising domestic sewage coming from residential users (60%) and industrial effluents discharged by enterprises located within the municipality boundaries (40%). Currently, this proportion has changed as a result of the dramatic decline in the industrial sector in the past decade. Many industries, especially major ones, were closed or forced to cut down their production and the proportion currently accounted for by residential areas received by municipal WwTPs is 90% and higher.
2. The present revival of industrial production activities in the urban areas is dominated by the fast growth of food industries. In other words, a relatively stable growth trend is largely associated with the development of public catering facilities and food processing industries (ready-made food plants, dairy plants, fat and oil plants, meat processing plants, etc.). The effluent generated and discharge patterns inherent to these industries is characterized by high levels of nutrient compounds, mainly nitrogen and phosphorus, in the effluent flows entering municipal sewer systems.
3. The uncontrolled growth of food industries creates a conducive environment for shadow businesses, including illegal food-processing operations run in residential premises. These activities produce effluents whose composition is difficult to predict in many respects. The only predictable factor is the presence of high concentrations of the previously mentioned nutrient compounds.
4. This situation is further exacerbated by significant quantities of phosphorus-rich detergents being dumped on the DBC market which are actively utilized by local households. The invasion has been triggered by their forced phase-out in West European countries and the consequent large scale export to countries of the FSU whose regulatory practices still lag behind those of the EU.
5. Another serious issue, which is specific to the City of Kyiv and its WwTPs is the unauthorized inflow of sewage effluents collected from satellite towns and suburban areas that have no centralized sewer

systems. These areas are served by numerous septic tanks that collect sewage of unknown origin and composition and are taken to Kyiv where they are illegally dumped into the municipal sewer system. The direct consequence of this practice are significant increases in pollution loads mainly in the form of nitrogen and phosphorus compounds, which are far in excess of available treatment capacity.

Issue 1 and its Consequences:

1. ***Environmental issue: Excessive levels of water pollution in the Dnipro Basin from nitrogen and phosphorus compounds, progressive eutrophication of the Dnipro and, consequently, the Black Sea.***

Issue 2. Wastewater treatment sludge accumulated in excessive quantities in the WwTP sludge lagoons. The presence of heavy metals and other persistent toxic substances in industrial effluent flows leads to their accumulation/co-sedimentation with the sludge produced at the WwTP. Such wastewater sludge contains high concentrations of contaminating compounds that are difficult to degrade in a chemical or biological treatment process. This makes the sludge unsuitable for agricultural and other uses; indeed this sludge would be better classified as hazardous (Class 4) waste. In the overwhelming majority of cases, municipal WwTPs feature no sludge dewatering capacity and have to use so-called sludge lagoons for sludge storage and passive dewatering. In the absence of suitable recycling/reuse options for this material, sludge lagoons become overfilled and vulnerable to poor management. This, in its turn, leads to the migration of contaminants to groundwater aquifers; also represent a serious challenge in terms of identifying/allocating additional land sites necessary to provide new storage capacity for wastewater sludge. In the context of large-scale privatization and steadily growing land prices in the outlying areas, this environmental issue has now acquired a socio-economic and political dimension.

The following sequence in decreasing order reflects the relative urgency and severity of this issue for each of the examined Vodokanals:

- In Ukraine: Dnipropetrovsk > Kyiv > Zaporizhzhia > Lutsk > Chernihiv = Zhitomyr = Kherson;
- In Belarus: Gomel > Minsk > Rechitsa = Mogilev = Mosyr.

Issue 2 and its Consequences:

1. ***Environmental issue: Surface water and groundwater contamination by heavy metals and their compounds.***
2. ***Sanitary/health issue: There is a real risk that groundwater contaminated by heavy metals may pass into the centralized municipal water supply systems, exacerbated by poor technical condition of these systems.***
3. ***Socio–economic issue: Local executive authorities and Vodokanals face a challenge of searching/allocating additional land required to increase the available storage capacity for wastewater treatment sludge. In the context of large-scale privatization and steadily growing prices for land in the suburban areas, this environmental issue has now acquired a socio-economic and political dimension.***

Issue 3. Peak instantaneous effluent releases from industrial sites. Effluent generation patterns inherent to many food processing industries features characteristic generation/release peaks associated with the equipment washing process. It should be noted that many industry managers tend to adjust their production schedule in a manner that ensures that this effluent-intensive washing process occurs mainly at night-time. In many cases, this process is followed by an illegal peak-type release of effluents to the municipal sewer system, which leads to the dramatic change in the WwTP operation regime. This may cause the loss of useful microbial flora present in the activated sludge and failures in the treatment process of varying duration, from several hours to several days.

This issue is perceived as being common and equally urgent to all examined Vodokanals.

Issue 3 and its Consequences:

1. ***Environmental issue: Water pollution in the Dnipro Basin due to poor and inefficient operation of municipal WwTP's.***

Issue 4. High levels of oil products, phenols and surfactants present in the effluents received at WwTPs. Any industrial enterprise typically maintains a vehicle fleet of varying size, from small to very large trucks. Furthermore, these contaminants are often brought with storm water drained from contaminated industrial sites to the on-site storm sewers that are typically connected to a municipal sewer system. The problem is exacerbated even further by the presence of numerous car-washing services, both corporate and private, that are scattered around the cities. It should be noted that the overwhelming majority of these facilities have no arrangements or systems for trapping oil or its removal.

This issue is considered to be common and equally urgent for all examined Vodokanals.

Issue 4 and its Consequences:

1. ***Environmental issue: Water pollution in the Dnipro Basin by oil products, phenols and surfactants.***

Issue 5. Progressive decay and deterioration of pressure and gravity-driven sewer pipes due to the presence of corrosive and acidic compounds in the raw effluents. This issue has serious economic implications for many Vodokanals that need to mobilize capital investment in order to replace or upgrade their existing sewer network, and this is a significant budget burden, not only at the municipality but even at the Oblast level. Acidic effluents are generated by plating and etching processes, and by fermentation-based processes inherent to food-processing industries (breweries, bakeries etc.). Casein production at dairy plants is another significant source of acidic effluents, let alone a very serious issue of 'acid' whey generation.

This issue is considered to be common and equally urgent for all examined Vodokanals.

Issue 5 and its Consequences:

1. ***Environmental issue: Groundwater contamination caused by migration of raw sewage from dilapidated and poorly repaired sewer lines to groundwater aquifers;***
2. ***Sanitary/health issue: Infiltrated raw sewage may pass into the drinking water supply systems.***
3. ***Socio–economic issue: Need to search and mobilize capital investment in order to finance the construction, repair or upgrade of sewer networks***.

2. SELECTION OF ENTERPRISES

The detailed analysis of issues faced by Vodokanals has provided the basis for formulating criteria required to select suitable candidates for involvement in pilot/demo projects among the industrial customers of Vodokanals.

The DBEP experts carried out a comprehensive survey and assessment of 60 industrial enterprises. Their primary focus was on those enterprises whose discharges were perceived to contribute significantly to the 5 priority issues faced by Vodokanals as described above. The Table below provides the list of these surveyed enterprises and their respective ISIC codes.

ISIC codes[47]		Economic Activities	Belarus Republic	Ukraine
1	2	3	4	5
D	151	Production, processing and preservation of meat, fish, fruit, vegetables, oils and fats	1	3
D	152	Manufacture of dairy products	4	6

[47] United Nations Statistics Division - Classifications Registry

D	153	Manufacture of grain mill products, starches and starch products, and prepared animal feeds		3
1	2	3	4	5
D	155	Manufacture of beverages	1	4
D	171	Spinning, weaving and finishing of textiles	1	1
D	191	Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness	1	1
D	202	Manufacture of products of wood, cork, straw and plaiting materials	2	
D	210	Manufacture of paper and paper products		1
D	231	Manufacture of coke oven products		1
D	232	Manufacture of refined petroleum products	1	
D	241	Manufacture of basic chemicals		1
D	242	Manufacture of other chemical products		2
D	251	Manufacture of rubber products		1
D	289	Manufacture of other fabricated metal products; metalworking service activities	4	4
D	291	Manufacture of general-purpose machinery	2	1
D	292	Manufacture of special-purpose machinery	2	2
D	311	Manufacture of electric motors, generators and transformers	2	
D	312	Manufacture of electricity distribution and control apparatus	1	
D	313	Manufacture of insulated wire and cable	1	
D	331	Manufacture of medical appliances and instruments and appliances for measuring, checking, testing, navigating and other purposes, except optical instruments	1	
D	332	Manufacture of optical instruments and photographic equipment	1	
I	601	Transport via railways	1	
I	602	Other land transport		1
I	611	Sea and coastal water transport		1
I	621	Scheduled air transport		1
Total			26	34

As part of their assignment Dnipro Program experts focused on those industries whose discharges are considered to represent an additional operational burden for Vodokanals, thereby exacerbating their existing major problems even further.

In light of the foregoing, the selection process for pilot/demo industries was based upon the following criteria reflected in Section 2.1:

2.1. Criteria Used to Prioritize and Select Pilot Enterprises

1. Water-consumption intensity of key processes, frequency of recorded non-compliances against discharge permit conditions specified for municipal sewer systems.
2. Availability of on-site treatment facilities, their technical condition, treatment efficiency and potential for upgrade/modernization.
3. Industry's ability to control and regulate the quantity and chemical composition of its effluents.
4. Availability of realistic and practicable plans for modernization or upgrade of key production processes, including key process improvements relating to water consumption and wastewater generation/collection, or construction of new on-site treatment facilities.
5. Awareness and understanding of various planning and financial aspects of potential wastewater collection/treatment improvement options among enterprise management and key staff.
6. Interest and willingness to carry out proposed modernization measures (please see Criterion 4) through, inter alia, the implementation of a pilot project as part of the Dnipro Programme.

7. Industry's financial solvency and ability to attract loan funding and other financial resources for proposed environmental measures.
8. The scope for replicating (on a country or sectoral level) experience and solutions employed/tested at a selected pilot enterprise.

The project experts have specified weighting multipliers in order to measure/determine the relative significance of each criterion and its contribution to the total score reflecting whether an enterprise meets the pilot project selection criteria defined under the Programme. The following weighting multipliers have been ascribed to each of the selection criteria:

Criterion	***1***	***2***	***3***	***4***	***5***	***6***	***7***	***8***
Weighting multiplier	0.1	0.15	0.08	0.15	0.07	0.1	0.20	0.15

Based on consultations with the Vodokanals, the DBEP experts produced a preliminary list of enterprises perceived to pose serious problems for their associated Vodokanals and were identified in the SAP as pollution Hot Spots. These enterprises have been subsequently ranked and prioritized using the above mentioned criteria.

Ranking Methodology Used to Prioritize Candidate Enterprises

The identification of a priority industrial enterprise for each Vodokanal was based on the ranking exercise undertaken to produce a prioritized list of enterprises where an enterprise with the highest ranking (first rank) would be considered as the best candidate having the highest total sum.

The ranking of each candidate enterprise with respect to each individual criterion would represent the interim result of the ranking exercise.

The total ranking of each enterprise was calculated as the sum of individual rankings weighted to take account and reflect the relative significance of each criterion. The following calculation formula is used:

$r_{c3} = \sum_{i=1}^{n} r_i \kappa_i$, where

r_i – an enterprise ranking with respect to the criterion 1, 2... etc.; n – number of criteria employed in the ranking exercise; k_i – relative weight of each criterion, expressed as a fractional part less than unity.

The use of weightings in this exercise is governed by the following formula: $1 = \sum_{i=1}^{n} \kappa_i$.

3. ISSUES FACED BY INDUSTRIAL ENTERPRISES

3.1. Privatization Issues

In Ukraine, the privatization process has now been completed for the majority of smaller to medium enterprises, with the exceptions stipulated by restrictive Ukrainian legislation (e.g., only 2 of 35 surveyed enterprises remain in state ownership). The Law of Ukraine "On the Environmental Audit" (2004) was adopted well after the start of large-scale privatization, and the mandatory requirement for a pre-acquisition environmental audit had not been part of official privatization procedure at that time. However, the post-privatisation market has continued to evolve and has become more and more attractive for international companies. One of the positive spin-offs generated by this process is the increased proliferation of environmental management and audit systems in the private sector.

In Belarus, the privatization is more of a 'ritualistic' process where an enterprise changes ownership by being handed over from the state to a municipality, which typically holds 80-90% of shares in such an enterprise. Enterprises attempting to move towards 'real privatization' are often forced into bankruptcy, are typically commenced by a series of unexpected 'inspections' initiated by state authorities.

3.2. Financial Stability Issues and their Environmental/Economic Aspects

Day-to-day survival in a new and changing economic environment is the major challenge for the overwhelming majority of industrial managers in the Dnipro Countries region. Therefore the issue of economic development and search of new markets for their products is seen by them as a first and foremost priority.

Environmental protection issues currently have little or no priority in the development agenda pursued by industrial managers. At the same time, many enterprises (e.g., breweries and soft drink plants, dairy plants) have to pay several million dollars per year for services provided by Vodokanals, with obvious and serious implications for their financial position and production costs.

The practice of regular indexation of environmental pollution fees by relevant governmental authorities logically forces Vodokanals to review and adjust their service tariffs accordingly. Considering the EU integration strategy adopted by Ukraine and the need to bring the national legislation in consistency with European laws, the expected increase in environmental pollution fees would be in the range of at least two orders of magnitude (as an example, the fee rate currently charged in Ukraine for the discharge/disposal of heavy metals in the environment is 400-800 times lower than relevant fee rates set in the Western European countries). Similar trends have become apparent in Belarus.

For many far-seeing industrial managers with strategic vision these considerations are clear and obvious leading many to think about the possibility and feasibility of implementing technical upgrades or cleaner production methods, or developing an on-site wastewater treatment capacity.

The issue of fees and tariffs should be considered in the context of the following two factors:

- Ukraine's accession to WTO and strategic aspiration towards the EU membership implies that its national legislation will continue to be brought in conformity with European laws;
- A proactive approach adopted by Belarus which will enhance and improve its environmental legislation by using, inter alia, existing methodological frameworks and instruments designed to support the harmonization of national legislation with the EU laws.

It appears that the most viable industrial enterprises typically fall into either of the two categories described below:

- Food processing industries owned by private investors, both national and foreign, whose major focus is on the domestic consumer market. Typically being at various stages of implementation process for their environmental management systems, many of these enterprises demonstrated their interest and willingness to cooperate with the DBEP, and expressed their commitment to invest their own resources in environmental measures; and
- Metal processing industries whose shares or portion thereof have been sold to foreign investors that promote their integration/penetration of international markets of goods and services. Regardless of initiatives adopted under the DBEP, these enterprises have already implemented or are implementing an environmental management system.

3.3. Awareness as an Issue

The general picture emerging from the survey completed to-date is one of very low awareness about CP opportunities and the potential benefits of environmental management systems among Vodokanal specialists, industry managers and the public.

An important strategic objective for the Project is to demonstrate and disseminate benefits, environmental and economic, received by partner enterprises through their participation and involvement in the project. More specifically, these include:

- Environmental benefits: Real reduction (by at least 60%) in pollutant load associated with process effluents achieved through the implementation of pilot/demo projects, or the 20-30% reduction in BOD achieved by implementing low-cost improvements; fostering a new attitude of respect and care for the environment among industry managers and technical staff. Building new culture of relationships with Vodokanals, local authorities and public.
- Economic benefits: In the longer term, achieving significant cost savings by minimizing/avoiding non-compliance charges and fines; improving management and production efficiency. Significant savings achieved in production costs can thereby release funds required to finance technical and technology improvements.

4. PRELIMINARY FINDINGS FROM THE CP IMPLEMENTATION STRATEGY

1. All in all, 12 Vodokanals and 60 associated industrial enterprises were examined in the Dnipro Basin within Belarus and Ukraine.
2. The selection process for pilot enterprises was based on the criteria as described above , though the presence of voluntary commitment and willingness to release internal resources in order to finance proposed CP projects was considered to be **a decisive factor**. Such a selection/distillation exercise has yielded only 5 enterprises (3 in Belarus and 2 in Ukraine). Four of five selected enterprises represent the food processing sector, and the remaining industry is an oil refinery.
3. The implementation of pilot/demo projects at 5 selected sites will aim to :
   - Reduce pollution load associated with nitrogen, phosphorus and organic compounds (expressed in terms of BOD and COD) and oil products present in process effluents generated by pilot enterprises, with a load reduction to be in the range 70–90 % (at least 60%).
   - Carry out a comprehensive study to assess the possibility and feasibility (financial, managerial, administrative, technical, etc.) of proposed capital investment projects mainly relating to the development of on-site wastewater treatment capacity;
   - Assess/evaluate environmental and economic benefits associated with proposed capital investment projects and disseminate lessons/experience from these projects among at least 60 industrial enterprises covered by the survey.
4. In order to prevent and avoid water pollution in the Dnipro Basin, especially by PTS (primarily heavy metals and also oil products, surfactants and phenols), the Project will approach approximately 25 additional enterprises to offer them technical assistance and assist in the formulation of their corporate environmental strategies and the implementation of low-cost environmental improvements identified in these strategies. It is anticipated that this will involve such industrial sectors as: metal fabrication, electroplating processes, chemical industry, textile industry and tanneries
5. The implementation of such additional low-cost environmental actions will aim to:
   - Reduce the loads of PTSs associated with process effluents generated by these enterprises, with a load reduction to be in the range 20–30% (at least 10%).
   - Examine and assess the possibility and feasibility (financial, managerial, administrative, technical, etc.) of implementing low-cost measures;
   - Assess/evaluate environmental and economic benefits associated with these low-cost improvements and disseminate lessons/experience from these projects through activities identified in Component 4.
6. For both types of projects (pilot/demo projects and low-cost improvements), the Project will:
   - Provide technical assistance and support required to review and enhance existing legal framework, for both CP research/development and water protection against pollution, with a view to achieving consistency and harmonization with relevant EU legislation;
   - Organize and carry out a training programme on various aspects of environmental management, including the review and evaluation of environmental performance at an enterprise level, implementation of environmental management systems, and improvement of enterprise management system and procedures (production planning and process control, quality management, efficiency/productivity improvement options etc.). It is anticipated that the training audience will consist of official representatives of local authorities that are able to contribute actively and effectively to the dissemination of CP knowledge and experience, Vodokanal specialists and NGO representatives.

Part VIII. Persistent Toxic Substances

For the purposes of the Project, the term 'Persistent Toxic Substance' (PTS) refers to any substance that is resistant to biological, physical and/or chemical degradation in the environment, and tends to accumulate in the living organisms.

Considering the provisions of the Stockholm Convention on Persistent Organic Pollutants and relevant UNECE Protocol, and taking into account the results and findings from the UNEP and UNDP-GEF project "Regionally Based Assessment of Persistent Toxic Substances" (Regional Report: Europe, December 2002), and based on the findings and conclusions of the 2002 Dnipro Basin TDA, the major focus of the Full-Sized Project will be concentrated on the following PTS's that are of industrial origin and largely come from point sources (please see the table below):

1) Heavy metals, with a particular focus on mercury, tin and lead compounds;
2) Oil products (OP) and polycyclic aromatic hydrocarbons (PAHs),
3) Polychlorinated biphenyls;
4) Short chain length chlorinated paraffins (SCCPs).

As regards other PTS's such as hexachlorobenzene, polychlorinated dibenzodioxins and dibenzofurans, pentachlorophenols, polybrominated diphenylethers and chlorinated paraffins that are known to be primarily associated with diffuse sources, they will be recommended to be addressed as part of the Component 2 through the development of methodology and techniques for the assessment of diffuse pollution loads.

No.	Name	Source/origin	MAC[48] limit (mg/l)
1	2	3	4
Pesticides			
1	Aldrin	Diffuse, agriculture	0.002
2	Chlordane	Diffuse, agriculture	
3	DDT (dichloro-diphenyl-trichloroethane)	Diffuse, agriculture	
4	Dieldrin	Diffuse, agriculture	
5	Endrin	Diffuse, agriculture	
6	Heptachlor	Diffuse, agriculture	0.02
7	Heptachlorobenzene	Diffuse, airborne	
8	Mirex	Diffuse/Point, agriculture	
9	Toxaphene	Diffuse, agriculture	0.005
Industrial Chemicals			
10	Polychlorinated biphenyls	Point	
Unintentional Byproducts			
11	Dioxins and furans	Diffuse, airborne	0.000035 0.5
Other PTS			
12	Atrazine	Diffuse, agriculture	0.5
13	Polybrominated diphenylethers (PBDE)	Diffuse, airborne	
14	Lindane (γ-HCCH)	Diffuse, agriculture	0.004
15	Mercury compounds Mercury	Diffuse/Point, airborne	0.0001 0.00053
16	Tin compounds	Diffuse/Point, airborne	0.001 – 0.02
17	Pentachlorophenol (PCP)	Diffuse/Point, airborne	0.01
18	Polycyclic aromatic hydrocarbons (PAH)	Diffuse/Point, airborne, surface runoff	
19	Short chain length chlorinated paraffins	Point	

[48] Sanitary Standard SanPiN 4630-88

	(SCCP)		
1	2	3	4
20	Hexabrombiphenyl (HBB)	Point	
21	Phthalates	Point	0.2 – 1.5
22	Nonylphenols (NP) and tert-octylphenols	Point	
23	Organic lead compounds	Diffuse/Point, airborne	0.03
24	Chlordecon	Diffuse, airborne, agriculture	
25	Endosulphane	Diffuse, agriculture	

Given that efficiency and performance of existing Vodokanals are currently measured solely on the basis of BOD and COD values, all capital-intensive actions planned under the project will also be evaluated and ranked in terms of reductions expected to be achieved in the levels of BOD, COD, and also nitrogen and phosphorus compounds.

Part IX. National Programmes and International TA Projects

Existing and Future National Programmes and International Technical Assistance Projects

Ensuring that proper consideration is given to the relevant national and international programmes (projects), both on-going and future, is pre-requisite to the ***sustainability*** of the present project, and the latter will seek to identify and utilize all potential synergies with and among them in order to maximize the strengths and advantages of project outputs.

A. International Programmes

A-1. International technical assistance programmes/projects planned/undertaken in ***Ukraine***:

No.	***Programme/Project, Duration, Donor Agency***	***Key Project Objective***
1	2	3
1	Environmental Management Standards for Enterprises in Ukraine, 2003–2004, TACIS[49]	Facilitating environmental improvements through the introduction of environmental management standards (EMAS and ISO 14000) to enterprises
2	Reform of Legal Framework and Enhancing Institutional Capacity for Environmental Management in Ukraine, 2006–2009, IBRD[50].	Strengthening institutional capacity for formulation, implementation and monitoring of modern environmental strategies in line with the EU standards
3	Developing and Implementing the National Cleaner Production Programme in Ukraine, 2007–2010, UNIDO	Project is under preparation

A-2. Joint technical assistance programmes undertaken in ***Ukraine/Belarus***:

4	The Western Bug Transboundary Water Quality Monitoring and Assessment, 2000–2002, TACIS	Adopting and incorporating the UNECE principles/approaches in the transboundary monitoring system. Developing the capacity for water resource management on a river basin basis.
5	Transboundary River Basin Management Project Phase II: Pripyat River (EuropeAid/120153/C/SV/Multi), 2007–2008, TACIS	Development of river basin management plan and programme of measures for the Pripyat Basin in line with the provisions of EU Framework Water Directive
6	Water Governance in the Western EECCA, 2008–2009, TACIS	Introducing the basin-based approach to water resource management

[49] The Zhitomyr Butter Plant, selected as a pilot site under the proposed programme, was involved in this project.
[50] International Bank for Reconstruction and Development

A.3. International technical assistance programmes/projects planned/undertaken in ***Belarus***:

1	2	3
7	Water Resource Management in the Western Dvina River Basin, 2000–2002, TACIS	Assessing the institutional capacity for water resource and river basin management
8	Reducing Agricultural and Industrial River Pollution in the Neman River Basin, 2001–2003, TACIS	Strengthening the institutional capacity for water quality control. Implementing pilot project in agricultural sector.
9	Capacity Building for Implementing Environmental Regulations in Belarus, 2006–2007, SIDA	Assessing/reviewing the legal, institutional, technical and economic arrangements for integrated permitting. Providing recommendations on bringing the national pollution control legislation in line with relevant EU laws.
10	TRABANT Transnational River Basin Districts on the Eastern Side of the Baltic Sea Network, 2006–2008, TACIS	Improving the state of water resources in the Baltic Sea Basin and enhancing the capacity for river basin management
11	Information Management System and Infrastructure for the Transboundary Daugava/Western Dvina and Nemunas/Neman River Basins, 2007–2008, TACIS	Enhancing international basin management structures and establishing the inter-state information exchange system
12	Strengthening Institutional and Legal Framework to Introduce the Integrated Environmental Permitting System in Belarus, 2007–2010, IBRD	Strengthening institutional and legal framework for integrated pollution prevention and control
13	Water Supply and Sanitation Project, 2008–2010, IBRD	Improving quality, efficiency and reliability of water supply/sanitation services in six Oblasts in Belarus.

B. National Programmes

B-1. The National and State Programmes undertaken in ***Ukraine***:

No.	***Programme***	***Comments***
1	2	3
1	The Cabinet of Ministers of Ukraine Programme of Actions "Ukrainian Breakthrough: For People, Not For Politicians" (approved by the Resolution of the Cabinet of Ministers of Ukraine of 16 January 2008 No.14)	Includes a provision for promoting and introducing the CP methods at the sectoral level
2	Implementation Plan for the State Policy Concept in the Field of Quality Management for Products (Goods, Works, Services) (approved by the Resolution of the Cabinet of Ministers of Ukraine of 31 March 2004 No. 200-r)	Specifies actions and financial allocations planned to harmonise the Ukrainian norms and standards towards those of the EU
3	The 2003-2011 State Industrial Development Programme, approved by the Resolution of the Cabinet of Ministers of Ukraine of 28 July 2003 No. 1174	Specifies actions and financial allocations planned to support the introduction of CP methods in various industrial sectors
4	The 2002-2010 Investment Activity Development Programme, approved by the Resolution of the Cabinet of Ministers of Ukraine of 28 December 2001 No. 1801	Specifies actions and financial allocations planned to support the introduction of CP methods in various industrial sectors
5	National Programme for Environmental Rehabilitation and Drinking Water Quality Improvement in the Dnipro Basin, approved by the Resolution of the Verkhovna Rada of Ukraine of 27 February 1997 No. 123/ 97-VR	A comprehensive programme of measures on pollution prevention and sustainable management of natural resources

1	2	3
6	Priority Measures for Reforming the Housing and Municipal Sector, approved by the Resolution of the Cabinet of Ministers of Ukraine of 26 June 2006 No. 363-r	Upgrade, modernization and extension of wastewater treatment capacity
7	The 2006-2010 State Standardization Programme, approved by the Resolution of the Cabinet of Ministers of Ukraine of 1 March 2006 No. 229	Specifies actions and financial allocations planned to harmonise the Ukrainian norms and standards to those of the EU
8	State Water Sector Development Programme, approved by the Law of Ukraine of 17.01.2002 No. 2988-III:	A comprehensive programme of measures on pollution prevention and sustainable management of natural resources
9	The 2006-2020 State Drinking Water Programme, approved by the Law of Ukraine of 03.03.2005 No. 2455-I	Development of centralized water supply systems
10	The State Earmarked Environmental Monitoring Programme, approved by the Resolution of the Cabinet of Ministers of Ukraine of 5 December 2007 No. 1376	Financial support and coordination of environmental/water monitoring activities, including transboundary monitoring in the Dnipro Basin
11	The Integrated Programme of Measures Designed to Protect Rural Settlements and Agricultural Land against the Harmful Effects of Waters in 2001-2005 and up to 2010, amended and approved by the Resolution of the Cabinet of Ministers of Ukraine of 03.07.2006 No. 901	Institutional/financial support for water monitoring
12	The 2001-2005 Programme of Priority Actions Designed to Ensure the Access to Centralized Water Supply for Communities Relying on Tankered Water, with the Provision for Expansion up to 2010, amended and approved by the Resolution of the Cabinet of Ministers of Ukraine of 23.11.2000 No. 1735	As above
13	The 2001-2005 Programme for the Development of Land Reclamation Schemes and Environmental Rehabilitation of Irrigated/Drained Land, with the Provision for Expansion up to 2010, amended and approved by the Resolution of the Cabinet of Ministers of Ukraine of 24.06.2006 No. 863	As above
14	The Integrated Flooding/Underflooding Control, Prevention and Mitigation Programme, approved by the Resolution of the Cabinet of Ministers of Ukraine of 15.02 2002 No. 160	As above
15	Plan of Actions for Achieving Strategic Objectives and Goals of the Ministry of Environment, approved by the Order of the Ministry of Environment of 25 September 2007 No. 496	Developing the economic mechanism for managing resource uses. Developing legal framework for cleaner production
16	The Ministry of Environment of Ukraine Order of 13 October 2004 No. 392 "On the Organization and Coordination of Activities Relating to the Introduction of International Environmental Management Standards ISO 14000"	Includes a provision for the introduction of CP methods, the approach is similar to the one proposed under the project
17	The Concept of the State Programme of Measures Designed to Support the Introduction of Environmental Management Systems and Product Certification Schemes in Line with the European and International Requirements	The draft Concept was produced in 2007, the ministerial review process is underway
18	The Programme of Ukraine's Integration to the European	Harmonization of current Ukrainian

	Union, approved by the Decree of the President of Ukraine of 14 September 2000 No. 1072	legislation to the EU laws
19	The State Programme for Adaptation of Ukrainian Legislation with the European Union Laws, approved by the Law of Ukraine of 18 March 2004	As above

B-2. State Programmes undertaken in ***Belarus***:

No.	***Programme***	***Comments***
1	2	3
1	The 2006-2010 Socio-Economic Development Programme for Belarus	Specifies actions and financial allocations planned to support the introduction of CP methods in various industrial sectors
2	The 2007-2010 State Integrated Development Programme for Country's Regions and Urban Areas (Small to Medium)	As above
3	The 2006-2010 State Import Substitution Programme	As above
4	The 2006-2010 National Action Plan on the Sustainable Management of Natural Resources and Environmental Protection in Belarus	A comprehensive programme of measures on pollution prevention and sustainable management of natural resources
5	The 2006-2010 State Water Supply and Sanitation Programme "Clean Water" (approved by the Decree of the RB President of 10 April 2006 No. 208	Upgrade, modernization and extension of wastewater treatment capacity. Development of centralized water supply systems
6	The 2007-2010 State "Quality" Programme (approved by the Resolution of the RB Council of Ministers of 23 August 2007 No. 1082	Specifies actions and financial allocations planned to support the introduction of CP methods in various industrial sectors
7	The 2007-2010 State Innovative Development Programme (approved by the Decree of the RB President of 26 March 2007 No. 136)	As above
8	The 2006-2010 State Housing/Municipal Infrastructure Development Programme	Upgrade, modernization and extension of wastewater treatment capacity
9	The 2005-2010 State Rural Area Revival and Development Programme	Specifies actions and financial allocations planned to support the introduction of CP methods in food processing industry
10	The 2006-2010 National Export Activity Development Programme	Specifies actions and financial allocations planned to support the introduction of CP methods
11	The 2008-2012 Republican Water Efficiency Improvement Programme	A comprehensive programme of measures on pollution prevention and sustainable management of natural resources
12	The 2006-2010 RB National Environmental Monitoring System Development Programme	National and transboundary monitoring
13	The 2006-2010 National Programme for International Technical Cooperation, approved by the Resolution of the Cabinet of Ministers of Belarus (9 December 2006 No. 1644)	Coordinating and mainstreaming the international technical assistance

Part X. STAP and GEF Agencies Comments to PIF

A. SCIENTIFIC AND TECHNICAL ADVISORY PANEL

The Scientific and Technical Advisory Panel, administered by UNEP, advises the Global Environment Facility
(Version 5)

STAP Scientific and Technical screening of the Project Identification Form (PIF)

Date of screening: 25 February 2008 Screener: Guadalupe Duron and Doug Taylor

Peer review by: R.J Cooke

I. PIF Information
GEFSEC PROJECT ID: 2544
GEF AGENCY PROJECT ID: PIMS No. 3246
COUNTRY (IES): Ukraine, Belarus
PROJECT TITLE: Implementation of The Dnipro Basin Strategic Action Program for the reduction of persistent toxics pollution
GEF AGENCY (IES): UNDP,
OTHER EXECUTING PARTNERS: UNOPS
GEF FOCAL AREA (S): International Waters,
GEF-4 STRATEGIC PROGRAM(S): IW-SP 4,
NAME OF PARENT PROGRAM/UMBRELLA PROJECT: UNDP-GEF DNIPRO BASIN ENVIRONEMNT PROGRAMME

size project GEF Trust Fund

II. STAP Advisory Response *(see table below for explanation)*

Based on this PIF screening, STAP's advisory response to the GEF Secretariat and GEF Agency(ies):
Consent

III. Further guidance from STAP

UNDP is invited by STAP to discuss comments and suggested improvements prior to submission of the Project Brief and when the results from the current PDF-B work are available.

In general terms, the proposed project is presented as a logical extension of the Dnipro Basin Environment Programme that GEF previously supported (2000-2005). Its specific objective is the initial implementation the Strategic Action Plan (SAP) by i) addressing persistent toxics pollution associated with small and medium size industries discharging waste water into municipal waste water treatment plants (WWTPs) or Vodokanals through application of replicable demonstration Cleaner Production (CP) techniques (Component 1), and ii) supporting institutional and regulatory measures that would harmonize response to water quality issues between Ukraine and Belarus consistent with moving to international and specifically EU standards (Components 2-4).

However, the PIF as presented would benefit from the provision of more clarity in the logic behind and interrelationship between the specific activities proposed for support within the overall context of the endorsed SAP. Additionally, more technical substance related to Component 1 would be beneficial. More specifically, the absence of technical detail on specific pollutants to be addressed, what CP measures and methodologies might be applied and where these might be directed makes any substantive technical or scientific assessment of the project based on the PIF problematic. The following elaborates on this with a number of specific questions and comments the proponent is recommended to address in the Project Brief.

1. *Definition of Persistent Toxic Pollutants*: The proposal seems to use the terms persistent toxic pollutants (PTP) and PTS (PTS) interchangeably but without specification of what indicative pollutants might be involved. The SAP and associated Transboundary Diagnostic Analysis (TDA) focuses on

"chemical pollution" as a priority, with that term covering a broader scope, namely human generated chemical contaminants that are toxic and/or persistent and/or bioaccumulating. It is suggested that the proposal be made consistent in this area and more specific as to what pollutants are in fact likely to be targeted for investment support in Component 1. In this regard, it may be logical to focus on those pollutants with toxic and persistent properties that are not captured by conventional biological WwTPs and/or which adversely impact the effectiveness and efficiency of such plants.

(A separate section has been added which defines PTS for the purposes of the Project in **Section IV**, **Part VIII**, at pp.**114-115** see Bookmark BVN1).

2. *Significance of Targeted PTP or PTS*: The project justification and estimation of its overall impact/benefit would be strengthened by providing some quantitative measure of the contribution that the targeted pollutants have on the overall water quality in the Dnipro River basin, and to what degree is the transfer of these pollutants transboundary in nature.

(A separate table has been provided which shows PTS concentrations in the transboundary areas of the Dnipro River basin. See **Section IV**, **Part VI**, at pp. **105-106** see Bookmark BVN2).

In this regard, it might be pointed out that in many cases, the impact of addressing these pollutants upstream of the WWTP is to improve their overall performance and therefore other critical discharge parameters. It is noted that these Vodokanal facilities, rather than upstream industrial SME's, are the main "hot spots" identified in the SAP, and are where the major longer term investments are required to implement it. It should also be understood that in some cases, such as heavy metals, the impacts may be more local both from accumulation in sewage sludge, and in river sediment at downstream impoundment points, given the large number of reservoirs in the basin.

(The significance of industry vs. Vodokanal contribution to pollution has been more extensively elaborated in **Section I**, **Part I, "PRIORITY TRANSBOUNDARY ISSUES"** at pp. **13-15,** see Bookmark BVN3).

Similarly, it would be useful to qualify the proportion of the overall PTP, PTS or chemical pollution load that comes from the targeted small and medium size enterprises (SMEs) as opposed to large industrial complexes. In this regard, the structure of many industrial sectors of interest in the region still favors large integrated complexes containing many operations that might be more common in SME's elsewhere. Therefore, exclusively targeting SMEs may miss significant opportunities to implement CP within larger enterprises where specific operations can be identified as a priority persistent or chemical pollutant sources. In this regard, the referenced similar and apparently quite effective CP initiative in the Danube Basin implemented by UNIDO within the UNDP Danube Basin project did not discriminate with respect to enterprise size and had a broader scope of targeted pollutants.

(A section has been added showing the pollution loads and their origins. See **Section I**, **Part I,** "PRIORITY TRANSBOUNDARY ISSUES" at pp. **13-15,** see Bookmark BVN3. The Project is focusing on the SMEs which have not been addressed or targeted by either the national governments or other IFOs. This is a rational approach as the heavy industry sector, inherited from the Soviet era was economically unviable and many of these industries are now in the process of being driven into bankruptcy and broken up into more viable components. The inherent interests at stake in such circumstances are several orders of magnitude beyond the capabilities of a UNDP-GEF project to address and any interventions in such disruptive conditions would not be a rational investment of project resources.

3. *Elaboration on Regulatory barriers to CP Implementation:* Regulatory changes and strengthening to address barriers to cleaner production are included in both Components 1 and 3 and should perhaps be consolidated in Component 3. This activity might be clearer by indicating generally what kinds of regulatory changes/barriers might be involved such as implementation of municipal sewer discharge limits upstream of WWTPs.

The consolidation has now been performed however it now proceeds in favor of Component 1 rather than Component 3. The reason lies in the specific objectives of these Components. Whereas Component 3 has a broader mandate to harmonize legislation by targeting six WFD directives, the specific regulatory changes dealing with barriers to CP in the Dnipro Countries are considered to be better handled by the

Working Group tasked with activities in Component 1 as these issues are closer to and better understood at the industry sector where the pilot/demo projects and low cost interventions will take place.

(See **Section I, Part II**, "ACTIVITIES PLANNED UNDER THE PROJECT, EXPECTED RESULTS AND REQUIRED RESOURCES"pp..25-27 see Bookmark BVN7, and p.29 at Bookmark BVN8).

4. *Elaboration of Technical Standards Supporting Harmonization:* The present Component 3 would be enhanced with some direct reference to the application of EU IPPC approaches and specifically the body of industry/sector specific guidance available that provides Best Available Techniques Reference Documents (BREFs) (http://eippcb.jrc.es/pages/FActivities.htm) that would likely be relevant to pilot/demonstration initiatives undertaken in Component 1.

This issue has now been addressed in **Section I**, **Part II,** "ACTIVITIES PLANNED UNDER THE PROJECT, EXPECTED RESULTS AND REQUIRED RESOURCES" in Output 1.3 and 1.4 at pp. 29-30. (see Bookmark BVN7, p. **29** see Bookmark BVN8).

5. *Impact and Scale of Cleaner Production Implementation Investments in Component 1:* STAP fully supports the value of CP investments in principle but suggests that Component 1 of the proposal could be enhanced by emphasizing and perhaps illustrating experience involving relatively low cost investment in CP at source upstream of WwTPs serving to reduce the much higher capital investments required to upgrade the WwTPs themselves. For comparative purposes it would also be useful to rationalize what appears to be a higher cost per CP pilot/demonstration relative to the referenced previous MSP project in the Danube basin undertaken by UNIDO during as part of that UNDP GEF project. In the currently proposed project, a total investment of US$4.3 million (US$1.4 million GEF grant) will generate 4 to 6 demonstration investments pilots in SMEs (assumed to be 2-3 in each country), while the previous project is understood to have supported 17 CP demonstration investments over a wide range of industrial sectors and enterprises for a cost of US$2.4 million (US$990,000 GEF grant). This may be explained by a different scale of investment than previously associated with CP initiatives but noting any such distinction would be helpful in understanding the nature of the proposed CP interventions and any technical or scientific risks that might be involved.

(The preliminary selection of pilot/demo industries took place according to a wide range of criteria which are extensively elaborated in **Section IV, Part VII** at pp 107-114. see Bookmark BVN4. They also take into account additional factors specific to the Dnipro Countries which deal with transparency issues and the willingness to commit to co-financing of CP technologies. The low cost investment in CP will be extended to a much wider category of industries and is more extensively elaborated in **Section IV, Part VII,** "Preliminary Findings from the CP Implementation Strategy" at p 113. In addition the full range of Component 1 activities has now been included in **Section I**, **Part II, "ACTIVITIES PLANNED UNDER THE PROJECT, EXPECTED RESULTS AND REQUIRED RESOURCES"** p. **25** see Bookmark BVN7).

6. *References to National Legislation and Plans:* The reference to the existing legislative and regulatory base in each country appears dated and should perhaps be reviewed in light of more recent medium or pollutant legal measures and current national environmental programs. One specific reference that would be relevant relates to the development of Stockholm Convention National Implementation Plans (NIPs) for Persistent Organic Pollutants (POPs) that have or are being undertaken in both countries using GEF assistance. This would also strengthen the potential contribution to cross cutting issues as called for in the current GEF focal area strategy documentation. Similarly, expanding the scope of CP initiatives that might be considered to include energy conservation in association with PTP/PTS pollutant reduction/capture would be worthwhile in this context.

The legislative and regulatory base was reviewed and updated subsequent to PIF approval. Both NPMCs have now approved the new baseline and the approach to target six WFD directives. A review of the aforementioned Stockholm Convention shows that Belarus has not only ratified the same, but has already begun implementation pursuant to a Presidential decree which mandates incorporation of the Convention's provisions in the current Belarus National Programme. By comparison, Ukraine has signed and ratified the Convention but the Cabinet of Ministers has extended a deadline till December 2009 for

the provisions to be included in the Ukraine National Programme. See also **Section IV**, **Part IX,** at pp.**116-119** see Bookmark BVN5).

7. *References to Potentially Supporting Initiatives:* STAP recommends that the various references to World Bank initiatives in both Ukraine and Belarus be validated with the Bank noting that most of those cited for Ukraine have not in fact proceeded while in the case of Belarus there are more recent initiatives that might be relevant. Similarly, verification of EBRD initiatives might be validated. This is important if capital financing from these institutions, particularly for WWTP upgrading, is seen as ultimately important is sustaining the viability of the GEF's investment.

(The project has updated the information on WB and EBRD country Programmes and relevant references to their activities have now been included. See **Section I**, **Part III,** "PROJECT COORDINATION AND ADMINISTRATION", at pp. **49-50** see Bookmark BVN6).

STAP advisory response	*Brief explanation of advisory response and action proposed*
1. Consent	STAP acknowledges that on scientific/technical grounds the concept has merit. However, STAP may state its views on the concept emphasising any issues that could be improved and the proponent is invited to approach STAP for advice at any time during the development of the project brief prior to submission for CEO endorsement.
2. Minor revision required.	STAP has identified specific scientific/technical suggestions or opportunities that should be discussed with the proponent as early as possible during development of the project brief. One or more options that remain open to STAP include: (i) Opening a dialogue between STAP and the proponent to clarify issues (ii) Setting a review point during early stage project development and agreeing terms of reference for an independent expert to be appointed to conduct this review The proponent should provide a report of the action agreed and taken, at the time of submission of the Project brief for CEO endorsement.
3. Major revision required	STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technical omissions in the concept. If STAP provides this advisory response, a full explanation would also be provided. Normally, a STAP approved review will be mandatory prior to submission of the project brief for CEO endorsement. The proponent should provide a report of the action agreed and taken, at the time of submission of the Project brief for CEO endorsement.

B. FRANCE COMMENTS.

25. Regional (Belarus, Ukraine)

Implementation of the Dnipro Basin Strategic Action Program for the reduction of persistent toxics pollution

Executing agency:	UNDP
Financing GEF:	$ 2,035 M
Total project cost:	$ 8,135 M
Duration:	3 years
IA fee:	13 %

The project concerns the DNIPRO river basin shared between Russia, Ukraine and Belarus. It follows up a first GEF supported program with these three countries, which led to the development of a Transboundary Diagnostic Analysis (TDA) and Strategic Action Plan (SAP). It targets persistent toxic pollution generated by the industrial discharged through the municipal waste water treatment systems.

The proposal raises several issues that need to be addressed during the project preparation.

The PIF indicates that Russia is not part of the project due to political consideration. The PIF indicates further that 20% of the Basin is situated in Russia. It should also indicate the amount of pollution coming from this part of the Basin, compared to the 80% covered by the project to know what share of pollution the project will actually address.

(The issue of Russia's overall contribution to transboundary pollution loads has now been addressed in **Section I**, **Part I, "PRIORITY TRANSBOUNDARY ISSUES"** at pp. **13,** see Bookmark BVN3

The PIF should have been clearer about the target of the pilot projects:

- Is it the industries themselves with cleaner production methods?
- Is it the management and technologies of municipal waste water treatment systems?
- Is it both and then what kinds of interactions are considered between the private sector (industries) and municipal and public entities?

The preliminary identification of the pilot/demo industries underwent an extensive selection process and contained elements which were specific to the Dnipro Countries region. As such the project will target both the CP methods and management issues together. The actual introduction of CP technologies in the pilot/demo projects will focus on both CP technologies and management while the low cost initiatives will concentrate more on CP information, management training and financing options. All these elements are discussed in various parts of the following sections: **Section IV**, **Part VII,** at pp. **107-114** see Bookmark BVN4, and also in **Section I**, **Part II, "ACTIVITIES PLANNED UNDER THE PROJECT, EXPECTED RESULTS AND REQUIRED RESOURCES"** at p. **25** see Bookmark BVN7) and **Section I**, **Part I,** "PRIORITY TRANSBOUNDARY ISSUES" at pp. 13-15 see Bookmark BVN3

No objection subject to precisions provided

C. GERMANY COMMENTS.

No 25 Regional (Belarus, Ukraine): Implementation of The Dnipro Basin Strategic Action Program for the Reduction of Persistent Toxics Pollution. (UNDP) (GEF Grant: $ 2.04 m)

Recommendation: Germany agrees to the project proposal. Changes outlined below should be made during further planning steps and during project implementation.

Comments:

• We concur with the comments of the STAP on the PIF. The PIF lacks sufficient information on important aspects, such as characteristics and sources of the pollutants and opportunities for launching pilot projects in specific industries (which ones?). As this project is a follow-up to an earlier project of the same agency, results and outcomes of the earlier project should be presented, such as pollution inventory data and results of the introduction of cleaner technologies

(These deficiencies in the PIF have now been thoroughly addressed with additional sections, tables and data provided in **Section IV**, **Part VII,** at pp. **107-114** see Bookmark BVN4', and partly in **Section I**, **Part II, "ACTIVITIES PLANNED UNDER THE PROJECT, EXPECTED RESULTS AND REQUIRED RESOURCES"** at p. **25** see Bookmark BVN7).

• Coordination with other ongoing projects on similar and related issues in the thematic area deserves particular attention to avoid overlap and duplication.

(A review of all National Programmes was completed and a narrative overview is provided in **Section IV**, **Part IX,** at pp. **116-119** see Bookmark BVN5)

D. GEF COUNCIL COMMENTS per: IVAN ZAVADSKY.

1. Quality assurance (QA) and Quality Control (QC)
(The above items have been addressed in **Section I**, **Part II, "ACTIVITIES PLANNED UNDER THE PROJECT, EXPECTED RESULTS AND REQUIRED RESOURCES"** at p. **28** see Bookmark BVN9).

2. Co financing.
(Letters of co-financing have been obtained from the participating countries and will be attached in the Project Document).

SIGNATURE PAGE

Countries: Belarus, Ukraine

UNDAF Outcome(s)/Indicator(s):

UKR: Expected UNDAF outcome #4: By 2010, poverty reduced by 50% through equitable, area-based economic growth and targeted provision of inclusive social services;

BLR: (there is no UNDAF in Belarus)

Expected Outcome(s)/Indicator (s):

UKR: Sustainable development policies and practices make the difference (UNDAF Outcome 1, CP Outcome 3 and UNDAF Outcome 4, CP Outcome 1)
Indicator: The rate of green house gas emissions declined, energy efficiency improved and conservation practices strengthened (in line with Ukr. MDG Goal 3, targets 2&3)

BLR: 11. Biodiversity, ecosystem services, protected areas and other commitments under the Convention on Biological Diversity and other multilateral environmental agreements integrated into national governance and production systems (including social, economic and policy frameworks such as MDGs, NSSEDS and key sectors such as agriculture, forestry, energy, and flood control)/ protected areas, ha,
(CP outcomes linked to the SRF/MYFF goal and service line)

Expected Output(s)/Indicator(s):

UKR: Transparent and sustainable governance and management of natural and biodiversity resources promoted through capacity building and regional cooperation
Indicator: Local level biodiversity conservation plans developed

BLR: Programme for protection of Polesie biodiversity operational/ the Programme
(CP outcomes linked to the SRF/MYFF goal and service line)

Implementing partner: *(designated institution/Executing agency)*	UNOPS
Other Partners:	Ministry of Environment Protection of Ukraine Ministry of Natural Resources and Environmental Protection of the Republic of Belarus

Programme Period:	2006-2010
Programme Component:	Energy&Environment
Project Title:	"Implementation of The Dnipro Basin Strategic Action Program for the reduction of persistent toxics pollution."
Project ID:	00063430
Project Duration:	3 years
Management Arrangement:	UNOPS

Total budget:	9,385,000
Allocated resources:	
• GEF	2,035,000
• In kind/cash contributions	
Government of Ukraine	2,500,000
Government of Belarus	3,000,000
UNDP	250,000
EU TACIS	1,500,000
Coca-Cola "Every Drop matters" partnership	100,000

Agreed by (Government of Ukraine): _____

Agreed by (Government of Belarus): _____

Agreed by UNOPS: _____

Agreed by UNDP: _____ 31/03/2009

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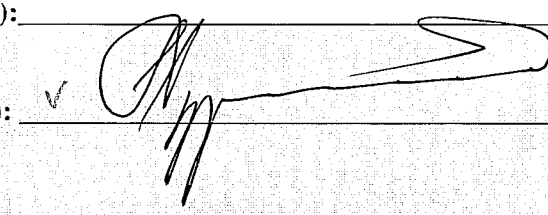
Agreed by (Government of Ukraine): _____

Agreed by (Government of Belarus): _____



Agreed by UNOPS: _____

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Agreed by (Government of Ukraine): _____

Agreed by (Government of Belarus): _____

Agreed by UNOPS: Vitaly Vanshelboim, DED, 22.04.21

Agreed by UNDP: _____