PROJECT EXECUTIVE SUMMARY

REQUEST FOR Council Work Program Inclusion
UNDER THE GEF Trust Fund

GEFSEC PROJECT ID: 2095
IA/ExA PROJECT ID: GF/1010
COUNTRY: Argentina, Bolivia, Brazil, Paraguay, and Uruguay
PROJECT TITLE: Sustainable Management of the Water Resources of the la Plata Basin with respect to the Effects of Climate Variability and Change
GEF IA/ExA: UNEP
OTHER PROJECT EXECUTING AGENCY(IES): At the regional level: GS/OAS - At the local level: The Intergovernmental Coordinating Committee for the la Plata Basin - CIC- with national executing agencies
DURATION: 5 years
GEF FOCAL AREA: Multi-focal Area/Others
GEF STRATEGIC OBJECTIVES: IW-1, IW-3, CC-SPA
GEF OPERATIONAL PROGRAM: IW OP#9 and CC - Support to adaptation
PIPELINE ENTRY DATE: June 2003
EXPECTED STARTING DATE: 2008
EXPECTED CEO ENDORSEMENT: END 2007
IA/ExA FEE:

FINANCING PLAN US ($)		
	PPG*	**Project****
GEF Total	725,000	10,730,000
Co-financing	(provide details in Section b: Co-financing)	
GEF IA/ExA	40,000	
Government	472,800	25,271,077
Others	321,000	25,290,885
Co-financing Total	833,800	50,561,962
Total	**1,558,800**	**61,291,962**
Financing for Associated Activities If Any: 126,060,000 *--see Annex 7 for breakdown--*		

* Inclusive of fee captured back in FP
** Net of fee
*** For multi-focal projects, indicate agreed split between focal area allocations **IW: USD11M + SPA USD1M inclusive of IA fee**
**** Projects that are jointly implemented by more than one IA or ExA

FOR JOINT PARTNERSHIP****		
GEF PROJECT/COMPONENT ($)		
(Agency Name)	(Share)	(Fee)
(Agency Name)	(Share)	(Fee)
(Agency Name)	(Share)	(Fee)

CONTRIBUTION TO KEY INDICATORS IDENTIFIED IN THE FOCAL AREA STRATEGIES: The proposed project aims at fostering international, multi-country cooperation in addressing the challenges that countries sharing transboundary systems face when dealing with environmentally sustainable development. It will do so by helping countries to go through the process of identifying transboundary problems, their possible solutions, and agreeing on measures to reduce the stress to the system. Hence the project clearly responds to the GEF Focal Area Strategy for International Waters, and in particular to the eligibility criteria established in the **Integrated Land and Water Multiple Focal Area Program (#9)**.

The project also conforms with the GEF strategic objective which is "*To expand foundational capacity building to a limited number of new transboundary systems through integrated approaches and foster replication through targeted learning for the IW portfolio*", and addresses **GEF4 IW priority** : *Conflicting Uses of Water in Surface and Groundwater Basins:* (GEF-4 will support projects addressing the balancing of conflicting/competing water uses in surface or groundwater basins, as well as projects that support integrated natural resources management across focal areas; where needed, these projects would also incorporate provisions for meeting water demands of ecosystems and developing resilience to fluctuating/changing climatic regimes).

Specifically, it fits into GEF-4 SO2 and is fully in line with GEF 4 Strategic Program 3 (Conflicting uses).

Therefore, the proposed project will increase the number of successful GEF foundational interventions in multi-country basin by one as well as the number of holistic joint management programs adopted. It will also contribute to the increased number of successful multi-focal experiences thereby demonstrating the need for fostering multi-focal area interventions.

Approved on behalf of the *United Nations Environment Programme*. This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for work program inclusion.

Name & Signature
Shafqat Kakakhel, Officer-in-Charge, UNEP/GEF
IA/ExA Coordinator

Date: May 09, 2007

Isabelle van der Beck
Project Contact Person

Tel. and email: +1(202)458-3772;
isabelle.vanderbeck@unep.org

List of Acronyms

ANA: National Water Agency, Brazil
CAF: Andean Development Corporation
CARP: Commission for the Administration of the la Plata River, Argentina-Uruguay
CARU: Commission for the Administration of the Uruguay River, Argentina-Uruguay
CDM-MDL: Clean Development Mechanisms
CdP: la Plata River Basin
CIC: Intergovernmental Coordinating Committee for the la Plata Basin countries
CIH: Intergovernmental Committee for the Paraguay-Paraná Waterway.
CIMA: Meteorological and Atmospheric Research Centre, Argentina
COMIBOL: Mining Commission, Bolivia
CONICET: National Council of Science and Technology, Argentina
CPTEC/INPE/MMA: Weather Forecast and Climate Studies Centre, Brasilia
CRAS-INA: Regional Groundwater Centre, Argentina
DNH: National Hydrographic Directorate, Uruguay
DRENARE: Renewable Resources Directorate, Uruguay
DSA: Agriculture Soils Directorate, Uruguay
DSD: Department of Sustainable Development - OAS
EBY: Yacyretá Binational Entity, Argentina-Uruguay
EMBRAPA: Brazilian Agricultural Research Enterprise, Brazil
FICH: Hydro Sciences Engineering Faculty, Littoral National University, Argentina
FONPLATA: Fund for the Development of the la Plata Basin.
FREPLATA: Environmental Protection Project of the la Plata River and its Maritime Front.
FSAP: Framework Strategic Action Programme
GEF: Global Environment Facility
GHG: Green house gas emissions
GIWA: Global International Waters Assessment
IBAMA: Brazilian Environment and Renewable Natural Resources Institute, Brazil
IMFIA: Institute of Fluid Mechanics and Environmental Engineering, Uruguay
INA: National Water Institute, Argentina
INIA: Agricultural Research Institute, Uruguay
IHP: International Hydrologic Program
INEMET/MAPA: National Meteorological Institute, Brazil
INPE: National Space Research Institute, Brazil
INTA: National Institute for Agricultural Technology, Argentina
IPCC: Intergovernmental Panel for Climate Change
IPH: Hydraulic Research Institute, UFRS, Brazil
ISARM-Américas: Management of Shared Transboundary Aquifer Resources Programme
ISP: Inter-American Strategy for the Promotion of Public Participation in Sustainable Development
ITAIPU: Itaipu Binational, Brazil-Paraguay.
LART: Regional Laboratory for Analysis and Telemetry, Argentina
MDS: Ministry for Sustainable Development, Bolivia
MERCOSUR: Southern Common Market
MTOP: Ministry of Transport and Public Works, Uruguay
NPU: National Project Units
OAS: Organization of American States
OSC: Civil Stakeholders Organization
OTCA: Amazonian Cooperation Treaty Organization
PK: Kyoto Protocol
SAP: Strategic Action Program
SAYTT: Yrendá-Toba-Tarijeño Aquifer System
SEAM: Environment Secretariat, Paraguay
SEDEC: National Civil Defense Secretariat, Brazil
SENAMHI: National Meteorological and Hydrological Service, Bolivia
SENASA: National Sanitary and Quality Agro-foods Service, Argentina
SIFEM: Federal National Emergency System, Argentina
SMNs: National Meteorological Systems
TDA: Transboundary Diagnostic Analysis
UBA: University of Buenos Aires, Argentina
UDELAR: University of the Republic, Uruguay
UFRGS: Federal University of Río Grande do Sul, Brazil
UFPR: Federal University of Paraná, Brazil
UNA: National University of Asunción, Paraguay
UNEP: United Nations Environment Programme
UNFCCC: United Nations Framework Convention on Climate Change
USP: University of São Paulo, Brazil
WMO: World Meteorological Organization
WSSD: World Summit on Sustainable Development

1. PROJECT SUMMARY

a) **PROJECT RATIONALE, OBJECTIVES, OUTCOMES/OUTPUTS, AND ACTIVITIES.**

The overall objective of the proposed project is to assist the governments of Argentina, Bolivia, Brazil, Paraguay and Uruguay, within the framework of the CIC as the agreed intergovernmental organization set forth for this purpose in the Treaty of the la Plata Basin, in managing the shared water resources of the la Plata Basin in an integrated manner, focusing on environmentally sustainable economic and social development, as well as adaptation planning and assessment, in view of the effects of climate variability and change on the hydrology of the Basin. The outcome of the Project will be such that the governments of Argentina, Bolivia, Brazil, Paraguay and Uruguay will coordinate actions and investments in the la Plata Basin to achieve sustainable utilization of its water resources, adapting to climate variability and change, mitigating their negative impacts and capitalizing on the opportunities that such variability and change may provide. This Basin-wide project provides the context for, and linkages between, ongoing GEF-supported efforts within portions of the la Plata Basin, as described in Section 5 below. This project also promotes synergies amongst GEF focal areas, increasing the resilience and adaptive capacity of the Plata basin in preparing a basin-wide structured menu of concerted adaptation measures in response to a sound and rigorous vulnerability and adaptation assessment. These multiple approaches reflect the complexities of the Basin, the regional distribution of priority concerns, and the diversity of ecosystems, while recognizing the unifying role of the River and the connectivity of the upstream and downstream portions of the hydrologic system.

The la Plata River Basin, extending over some 3.1 million km2, is one of the largest river basins in the world. The Basin's rivers drain approximately one-fifth of the South American continent. Water and nutrients from the central regions of South America discharge through the la Plata River to the Southwest Atlantic Large Marine Ecosystem (LME).

A large wetland corridor links the Pantanal (in the headwaters of the Paraguay River) with the Delta del Parana, at its outlet to the la Plata River. This constitutes a river system with great biological diversity and productivity. The la Plata Basin also has important groundwater resources, which mostly coincide with the Guaraní Aquifer System (1,190,000 km2 in extent), one of the largest continental groundwater reservoirs in the world. The Yrenda-Toba-Tarijeño (SAYTT) Aquifer System is another potentially important groundwater resource, among others.

The Basin is in a complex climate region, with important "gaps" in the available data, which generate uncertainties for the modeling of spatial, temporal and global interrelations. The climate is a determining factor for the heterogeneous hydrological system. The relatively scarce rainfalls and high evaporation levels define the arid and semiarid zones to the west (Grand Chaco Americano), while

strong rainfalls and runoff, due in part to deforestation, characterize the northeastern zones.

The great Pantanal wetland has a key role in the storage of runoff produced by rainfall in the Alto Paraguay River catchment, which delays for almost six months the maximum flows to the Parana River, avoiding downstream flooding. The economic and social impacts of flooding are very important. Available data for the last 20 years show that the floods on the Parana River are more frequent, intense and long-lasting. The constant advance of urbanization and soil use changes are important reasons for this phenomenon, which also are certainly related to climate factors.

The la Plata Basin has also one of the highest average sediment transport rates–of approximately 100 million tons/year in the Parana River (at Corrientes)– associated with soil loss, navigation problems, water quality deterioration and problems of infrastructure maintenance. Most solids come from the Bermejo River basin, tributary to the Paraguay River, where erosion control measures are being implemented under auspices of a GEF-supported Strategic Action Program. In the Alto Paraguay-Pantanal, there are significant wetland conservation problems related to increase in sedimentation arising from the expansion of agriculture and mining within this sub-basin. Strategic actions to address these specific concerns are being addressed within Brazil under the auspices of another GEF-support Strategic Action Program. In the Gran Chaco, where soil degradation is the principal issue to be addressed in an integrated water resources management context, work on the preparation of land management strategies is currently underway. In each of these cases, the la Plata River system form the central focus, yet the manifestations of the environmental concerns have a specific local focus that warrants sub-regional level interventions. That said, the lesson learned and stakeholder-based approaches to resolving these local concerns can be transferred throughout the la Plata Basin and beyond, in part, under the auspices of this project.

The global importance of the problems as perfectly described in the comprehensive study of the Plata basin, carried out by the OAS in the 1970s, prompted the GEF to finance different projects tackling major issues (sedimentation, protection of headwaters, coastal and marine pollution, groundwater matters) allowing strengthening of policies for ensuring integrated water resources management including ground water management, biodiversity protection or soil degradation mitigation. These projects although successful in terms of dealing with specific concerns, do represent uncoordinated opportunities in terms of the broader Basin. The proposed project provides the linkages and context for those ongoing and previous activities developing the coordination framework.

Further, the intense human activity, rapid urbanisation and deforestation of extensive areas for cultivation, has increased runoff to the rivers, modified local

climatic conditions (e.g., humidity, temperature and wind speeds), and, due to the area of the la Plata Basin, impacted the global climate. These processes and associated hydrological changes increase the natural variability inherent in the behaviour of the water resources of the Basin. Consequently, floods are larger and more frequent, and flood-drought cycles recur more often. These superficial impacts are exacerbated by changes in rainfall intensities that impact and erode soils, resulting in higher in-stream flows and flooding of lowlands, as well as redistributing eroded soils by alternately transporting and depositing suspended silts within the Basin. Under these conditions, infiltration into, and recharge of, aquifers is reduced. Similarly, rapid urbanisation alters both surface flow and groundwater flow patterns by placing layers of asphalt and concrete and attendant structures over the soils, and increasing the sources of contamination to streams. Fluctuations in climate, such as are thought to have contributed to a period of extremely high rainfalls and severe floods during the 1960s, are encouraged by such human activities. These fluctuations not only affect the individual component sub-basins of the la Plata River (such as the Upper Paraguay River), but also, because they are not limited by the national frontiers, have clear transboundary consequences. These consequences can be further multiplied by the placement of impoundments along the waterways within the Basin (i.e., for the hydroelectric generation). Dams modify not only the physical and chemical characteristics of the waters (i.e., temperature, pH, and dissolved oxygen), but also have consequences for the living creatures whose natural mobility may be hindered by such structures and the habitat changes they initiate.

According to a series of climate change scenarios developed during the project development process, climatic variability related to *El Nino/La Nina* periodicities have a dominant influence over the hydrology of the Basin. During the last 40 years, the la Plata basin has indeed been witnessing important changes in rainfall and discharge patterns. Precipitation in the basin has increased by 10 to 15% on average with some places witnessing a 30% increase in precipitation. During the same period, the basin has witnessed extraordinary peaks in discharge, especially during the El Nino period of the ENSO events. For example, in the last three ENSO-related events, the number of people affected in the Argentine portion of the drainage area, was about 150,000 during each event, with economic losses that reached US $ 17,500,000 and affected an area of 18,500,000 hectares (1997-1998). On a positive note, though, the dams on the Parana and Uruguay Rivers have exceeded their design level of power generation.

Although important land use changes coincided with this 40 year period, and are superimposed on the increase in precipitation, the increase in discharge over the Basin is to be attributed mainly to the climatic and hydrological features of the basin. Such an increase in discharge due to the increased temperature is typical of a subtropical region. The limited capacity for conveying this runoff from the Basin, due to its low gradient, is also responsible for the high evaporation rates, for longer lasting or even permanent flooding in the lower parts of the Basin, as well as for changes in crop patterns and expansion of the agricultural frontiers.

The latter also are linked to the changes of isohyets in other parts of the basin like in the West of Argentina. These are intrinsic characteristics of the la Plata basin, whereby small changes in precipitation or in evaporation can imply important changes in discharge, making water related activities highly vulnerable to climate change.

Current models indeed show a definite increase in precipitation. Changes in precipitation patterns as well as in evaporation and discharge patterns over the basin, exacerbated by human activities, are having a significant impact on the economic development of the Basin and the vulnerability of its population. The scientific knowledge however is still limited. A better understanding of the changes in precipitation necessarily implies the need for a better knowledge of the Meso-Convective Systems (MCSs) responsible for most of the precipitation. This is essential to improve the weather and the hydro-climate predictions as well as the climate scenarios, and for the subsequent design of adaptation measures and improvement of inter alia existing early alert systems. Further, efficient monitoring and modeling of land use, and a strong observation system taking advantage of satellite images, are paramount for the improvement of MCSs understanding.

Although various Global Climate Models (GCMs) are reliable for global scale climate changes, they still have a limited capacity to simulate climate at a regional scale. In contrast to the agreement between models at the global scale, the models typically produce less consistent responses when applied at the regional scale. Most temperature models, for example, predict a warming trend in the la Plata Basin, although none of them agree on the exact extent of the temperature rise. In terms of precipitation, the models show distinctly different trends for the la Plata basin, leading to a great uncertainty about trends in precipitation. Such uncertainties raise concerns vis a vis the validity of climatic scenarios at the regional level; improved temperature and hydrological distributed models would constitute the basis of a sound regional system of hydro-climate prediction. Hence, in response to this clear “gaps” in climatic data and climate knowledge, the la Plata Basin will greatly benefit from improved knowledge of the hydro-climate conditions in the basin to further design its basin-wide, structured adaptation plans and to develop respective national policies on Climate Change and prediction. To this end, acquisition of more complete data on current hydrometeorological conditions in the la Plata Basin and the development of Basin-specific models form an important element of this project.

On the basis of the above, the preparation of an integrated water resources management program in relation to climate change was agreed in 2001 during the IV Inter-American Water Management Dialogue. At that meeting, the President of the CIC, Foreign Affairs representatives of the Basin countries, experts, and GEF project staff from the five countries, with GEF support, agreed on the need to develop a Framework Program for the la Plata Basin in order to: “i) coordinate projects of common interest for the la Plata Basin countries; ii) carry out projects

in water resources management and select concrete prioritized actions; iii) highlight the importance of flood and drought phenomena in the Basin, among others; iv) define sustainable hydrology; and v) promote regional initiatives identified as priorities by two or more countries within the framework of the la Plata Treaty...."

Within this context, the CIC requested GEF PDF Block A support to identify the priority transboundary program elements and GEF PDF Block B support to prepare a Framework Strategic Action Programme for the Basin (FSAP) and this proposed project. The Framework Strategic Action Program (FSAP), itself based upon the common Vision of the five countries, has defined strategies to guide development in the Basin during the short (5 years), medium (10 years) and long terms (more than 15 years).

The principal outputs of this proposed project will include the formulation of a detailed TDA and SAP including a comprehensive structured programme of actions to address local adaptation needs but generating global environment benefits, and strengthening of an institutional and legal framework and technical capacity (enabling conditions) necessary for the long-term implementation of the SAP, taking into account the implementation plans and financing strategies agreed by the Basin countries. This project will thus ensure strengthened management of shared water resources through the development of predictive and decision support tools for climate induced alterations.

Accordingly, the project has three Components: (i) strengthening basin-wide cooperation capacity for integrated hydro-climate management; (ii) formulating the Strategic Action Pregram; and (iii) adapting to the effects of climate change and variability on environmentally sustainable development. Detailed information of each Component and its associated tasks is presented in the Core Document.

Component I, Strengthening basin-wide cooperation capacity for integrated hydro-climate management, is comprised of three sub-components: (1) Harmonizing the legal and institutional framework; (2) Facilitating stakeholder participation, communications, and education; and (3) Monitoring and evaluation of the project.

The **objective** of sub-component I.1 will be to instil the principles of integrated water resources management (IWRM) within the appropriate country-level institutions—including water resources, natural resources, economic development, climate, public health and sanitation, land use planning, fish and wildlife and agricultural agencies—through targeted institutional strengthening and capacity building and harmonization of the legal and institutional frameworks within which the five Basin countries implement management measures. The **outcome** will contribute to the institutionalization of the necessary legal and administrative tools (including a decision support system) for sustainable utilization of the land and water resources of the Basin. This **activities** to be

carried out under this sub-component will provide for coordination and project oversight capacity for planning and managing the other Components. This sub-component will be housed within the CIC, with the National Project Units (NPUs)—see the organigram in the Core Document—providing coordination and oversight of project execution at the national level. Each NPU, acting, inter alia, as an inter-ministerial committee, will coordinate sectoral interests within their national territories. Overall coordination and execution of specific Basin-wide activities will be provided by the General Secretariat of the CIC. Sub-component I.1 will be executed throughout the 5-year Project period. **Total US $ 4,962,350 (GEF, US $ 1,823,000; counterpart, US $ 2,823,850; co-financing, US $315,500).**

The **objectives** of sub-component I.2 will be to: strengthen active, structured and responsible multi-stakeholder participation in the formulation of the SAP, increase awareness about the Basin and interaction between all riparian organizations, and create the enabling conditions for stakeholder participation within the framework of the CIC. Stakeholder participation serves as an additional safeguard against "mal-adaptive" initiatives and measures. Hence, the **outcomes** of sub-component I.2 will focus not only on enhanced communication and promotion of public participation, but also on education for responsible and conscious participation of stakeholders and civil society, through the establishment of a Public Participation Fund (PPF). It should be noted that public participation and involvement is inherent in all of the project activities. It is expected that representatives of the participating communities in these pilot demonstration projects will form a consultative committee able to assist other communities in replicating successful interventions, a consortium of expertise able to participate meaningfully in local decision making, and a case study in successful public-private partnership that could serve as the basis for "lessons learned" from this project to be highlighted through the IWRN and IW-LEARN networks. The Public Participation Plan presented in Annex D will cover the following **activities:** i) enhancing the database of and interaction with stakeholders identified by the Institutional Mapping Tool; ii) identifying new coordination mechanisms building on the experiences, practices and achievements of other GEF projects being executed in the la Plata Basin; iii) establishing inter-institutional agreements to coordinate the activities and mandates of the various commissions, agencies and organizations working in the la Plata Basin; iv) including civil society organizations in the preparation, negotiation and approval process of the TDA and the SAP; v) communicating and disseminating information on the framework strategies of the Basin including on the need for adaptation and relevant responses; vi) executing environmental education activities and training in IWRM, and promoting comprehensive stakeholder participation; vii) based on the WB-OAS Guarani project experience, establishing a Fund for the Promotion of Public Participation that will facilitate the active commitment of social organizations in the management of critical issues; and viii) executing the three pilot demonstration projects (Component II) to be executed with local communities (see also Annex 8). Sub-component 1.2 will be executed

throughout the 5-year Project period. **Total US $ 1,016,280 (GEF, US $ 650,000; counterpart, US $ 366,280).**

The **objective** of sub-component I.3 will be to administer the project, including the Monitoring and Evaluation (M&E) functions (GEF: US $ 100,000; see below and Section 4) and project oversight (GEF: US $ 720,000; see Section 4.b) below) to be conducted during the project and at the conclusion of the project activities. The **outcome** of this sub-component will be periodic financial, progress and evaluation reports, completed by the CIC and project team in a timely and cost-effective manner. Detailed information about this sub-component including envisaged tools and timeline, indicators and means of verification, responsibility chart, and a detailed breakdown of the costs is presented in Annex E to this document. The **activities** to be carried out under the M&E Plan is an integral part of the project management and seeks to provide the means to monitor and evaluate progress and performance in all components of the Project, and achievement of its overall goals. **Sub-component I.3 will be executed throughout the 5-year Project period. Total US $ 1,118,000 (GEF, US $ 820,000; counterpart, US $298,000).**

It should be noted that the total cost for M&E is **US $ 1,012,500,** with US $ 714,500 being the GEF cost and US $ 298,000 the counterpart contributions from the governments of the five participating countries, according to the break-down presented in Annex E section 6. Of the US $ 714,500 GEF contribution to the M&E Plan, US $ 370,000 is allocated under Component I.1, Strengthening of the capacity of the CIC. An additional US $ 244,500 is allocated under Component II to the specific M&E Plans of the Pilot Demonstration Project (Sub-component II.2: US $ 200,000) and Integrated Basin Management (Sub-component II.1: US $ 44,500) sub-components. The remaining US $ 100,000 corresponds to the MTR and FE, and the meetings of the Inter-ministrial Committees, and is allocated under sub-component I.3.

TOTAL COMPONENT I: US $ 7,097,130 (GEF: US $ 3,293,500; counterpart: US $ 3,488,130; co-financing: US $ 315,500)

Component II, Strategic Action Program formulation, is comprised of three sub-components: (1) Promoting Integrated Basin Management; (2) Implementing pilot demonstration projects; and (3) Preparing the Strategic Action Program.

The **objective** of sub-component II.1 is to develop and refine the practice of Integrated Basin Management in the la Plata Basin. The **outcome** of sub-component II.1 will be replicable management measures to implement practices promoting sustainable resource utilization in the Basin, which will inform the formulation of the basin-wide TDA and SAP. Specific outputs will include, inter alia: providing the conceptual framework for groundwater management, harmonizing national biodiversity strategies within the la Plata Basin and consolidating the actions of the Basin countries under the United Nations

Convention on Biodiversity, formulating a dynamic information system with integrated water balance data for the whole Basin to support an integrated water resources management program (based on quantified water supply and demand information, specifically including water for hydroelectric generation, agricultural activities, transportation, recreation and commercial activities, municipal use and sewage discharges), as well as producing the framework for a water quality baseline for the Basin and a protocol for monitoring. This **activities** to be conducted under this sub-component will include: development of best practices for conjunctive use of surface and ground water in the Yrenda-Toba-Tarijeno Aquifer System (SAYTT), application of community-based practices to address contamination issues (through Cultivando Agua Boa, a public-private partnership with ITAIPU that includes the use of revenues from water charges to create a revolving fund to secure investments in priority areas ("hot spots") within the drainage basin), and replication of land management measures in a degraded portion of the Basin (Selva Misionera Paranaense). It should be noted that, with the exception of Selva Misionera Paranaense, all land degradation hotspots have been or are currently being addressed under the Upper Paraguay-Pantanal, Bermejo and Chaco GEF projects. Inclusion of activities within the Selva Misionera Paranaense will complement these GEF-funded activities and contribute to the transfer of knowledge between these programs. These activities will be supported by additional activities which include: hydrological and water quality monitoring (through application of the UNESCO IHP Integrated Hydroclimate Forecasting System), and sustainable economic development in the Lower Uruguay River sub-basin. Sub-component II.1 will be executed throughout the 5-year Project period. Detailed information is presented in Annex 8. **Total US $ 20,832,731 (GEF, US $ 4,491,500; counterpart, US $ 7,231,231; co-financing, US $ 9,110,000).**

The **objectives** of sub-component II.2 are to provide local management experience, test the feasibility of the proposed measures, and determine the actual costs and feasibility of specific interventions through potentially replicable pilot demonstration projects. The **outcomes** will develop, document and disseminate feasible and cost-effective land and water management measures to address priority transboundary concerns within the la Plata Basin, and provide the basis for sustainable use of the land, water and biological resources in the Basin as input to the SAP formulation process. The demonstration project **activities** are focused on the resolution of critical problems, in selected areas and sub-basins, as identified during the PDF-B process. They will be carried out by local committees with the participation of key governmental and non-governmental organizations. These projects will be financed in large part by FONPLATA. The GEF funding will be used primarily to ensure dissemination of the experience throughout the basin and the formulation of mechanisms to allow up-scaling of the experiences generated throughout the Plata Basin during SAP implementation. Specific priority areas of concern have been identified during the PDF-B process: control of erosion and contamination in the Pilcomayo sub-basin (Argentina, Bolivia, Paraguay); development of a hydrological alert system at the confluence of the

Parana and Paraguay Rivers (Argentina, Brazil, Paraguay); resolution of water use conflicts in the Cuareim/Quarai subbasin (Brazil, Uruguay); and creation of a biodiversity conservation program to address nonnative invasive species, and the sustainable use of fisheries resources, in the regulated portion of the Parana River (Argentina, Brazil, Paraguay). Sub-component II.2 will be executed during the first 3 years of the Project period. Further detailed information is presented in Annexes 8 and 8Bis. **Total US $ 11,152,051 (GEF: US $ 1,000,000; counterpart, US $7,351,051; co-financing, US $ 2,801,000).**

The **objective** of sub-component II.3 will be to prepare a Strategic Action Program for the Basin, fully grounded on a comprehensive Transboundary Diagnostic Analysis focusing on the issues identified during the project development activities and the results of Components I above and III below, other consultations, and related studies including the results of any sub-basin TDAs and SAPs. The **outcome** will be an agreed strategy (SAP) for the sustainable utilization of the Basin's land and water resources. The SAP, including a climate adaptation element to be developed under Component III, will be formulated through the comprehensive multi-stakeholder participation process set forth under sub-component I.2. It is intended that the SAP will be negotiated and endorsed at the country level through the national inter-ministerial committees; and endorsed and promoted at the regional level through the CIC. It will also be supported by the various meetings of the NPUs. Although, the SAP formulation is an iterative process, outlines for the TDA and SAP will be developed from the onset of the project. The TDA will encompass the results of the forecasting modeling and scenarios of climate change vulnerability as scientific inputs to the basin wide TDA. The **activities** to be carried out under this sub-component include an analysis of the feasibility and cost of structural and non-structural interventions. This sub-component will also look at the formulation of a financial strategy for securing funding for SAP implementation considering, inter alia, the use of financial instruments, including mechanisms such as revolving loan funds, water pricing, and public-private partnerships, and application of value to ecosystem services. Non-structural interventions to be evaluated could include, inter alia: consideration of alternative, sustainable livelihoods and/or production methodologies (such as use of aquaculture to protect and preserve stocks of native fishes with high economic value, for example); and implementation of clean technologies and alternative energy sources. Sub-component II.3 will be executed during the final 4 years of the Project period. **Total US$ 4,713,500 (GEF, US $ 1,045,000; counterpart, US $ 1,968,500; co-financing, US $ 1,700,000).**

TOTAL COMPONENT II: US $ 36,698,282 (GEF: US $ 6,536,500; counterpart: US $ 15,982,047; co-financing: US $14,179,735)

Component III, Adaptation to climate change, is comprised of one foundational activity: creating an Integrated Hydrometeorological-climatic Forecasting System at the Basin level to generate meteorological, hydrological and climatic forecasts and scenarios. The **objective** of this Component is to enhance the capacity within

the Basin to anticipate floods, droughts, and extreme events (related to El Nino and La Nina periodicities), inform regional land use and economic development programs, and permit the Basin countries to anticipate and adapt to climate change and variability related impacts. The **outcome** of this Component, through the formulation of the SAP, will permit the Basin countries to access Climate Change Adaptation funds for specific implementation projects. The five Basin countries have published their initial National Communications (NCs) in response to the UNFCCC requirements; Paraguay, Argentina and Brazil have or are completing their Second National Communications (SNCs) which recommend implementation of programs to prepare policies and strategies for identifying measures and responses to climatic variability and change. In particular, the SNCs recommend capacity building and institutional strengthening measures necessary to integrate climate change concerns into regional planning scenarios, which activities form the nexus with this project. Component III will focus on **activities** related to adaptation to climate change and variability by the Basin countries by creating an Integrated Hydrometeorological-climatic Forecasting System at the Basin level. Such Basin-wide Forecasting system would build on the riparian existing systems and their regional programmes for the Plata Basin. Although, the information system would be hosted at the CIC, the forecasting system would build on specific expertise of the riparian countries (regional leading climatic scientific centers) which would each act as centers of excellence on specific issues. In addition to a long-term model-based forecasting and monitoring system, this activity will look at the data gap and will coordinate the formulation of a climate change vulnerability assessment including vulnerability maps. For further detailed information see Annex 9. **Total US $ 17,496,550 (GEF, US $ 900,000; counterpart, US $ 5,800,900; co-financing, US $ 10,795,650).**

TOTAL COMPONENT III: US $ 17,496,550 (GEF: US $ 900,000; counterpart: US $ 5,800,900; co-financing: US $ 10,795,650)

b) **KEY INDICATORS, ASSUMPTIONS, AND RISKS (FROM LOGFRAME)**
Key indicators of project success will be the provision of an appropriate level of financing by the member States of the la Plata Basin Treaty to national institutions and the CIC as the sub-regional intergovernmental organizations under the Treaty. For this reason the countries' legal institutions form the basis for executing the project and strengthening these institutions forms its primary objective to ensure sustainability. The implementation of integrated and sustainable water resources management in the Basin will result in enhanced governance abilities at all levels, within the framework of CIC. Development of legal and institutional actions, as well as technical and operational potentials, among the Basin institutions responsible for different sectoral issues will facilitate development of appropriate economic instruments and a responsible climate for civil participation within a shared Basin vision. To this end, it is **assumed** that the Foreign Affairs Ministries and responsible institutions of the five countries will support the economic and financial structures to be executed within the SAP.

These institutions also are expected to develop and introduce the necessary legislation to implement the priority actions set forth in the SAP.

Specific **impact indicators** applicable to this project include the following: an efficiently operating basin committee created through the strengthening of the CIC; strengthened national capacities for the conduct of integrated water resources management; an agreed strategy (SAP) for, inter alia, the resolution of water use conflicts and inter-sectoral conflicts; inter-ministerial committees within the Basin countries formed from the foundation created by the NPUs proposed to be created in each Basin country; and enhanced sustainable economic activity and access to water within local communities in the la Plata River Basin.

The diversity of culture and language, and the different jurisdictions involved in each of the five countries, with respect to water resources and climate, constitute a risk for the final objective. In the federal countries of the Basin, there is a further **risk** that the failure of the provincial or state governments to adopt and implement the SAP may negate the actions of the federal authorities in certain areas of activity where the provincial or state governments have constitutional jurisdiction. Even though it is **assumed** that the activities have been designed to improve this situation and minimize the risk, a failure to grant final approval to the agreed proposals would not allow the project to go forward despite the strong commitment of the Basin countries and their support for the CIC.

Another **risk** factor is the geographic extent of the Basin, which is a limitation to the effective and efficient participation and active involvement of stakeholders. The extent of the Basin and the complexity of the Program constitute a challenge for project implementation; however, it is **assumed** that the strong linkages with civil society, professional bodies, and relevant governmental bodies will minimize this risk. Further, the upstream-downstream orientation of the Basin countries could potentially introduce risks from unilateral actions where the national interests of the countries are concerned.

From the financial point of view, a possible **risk** is the lack of availability or effective integration of counterpart resources to co-finance various activities. It is **assumed** that the formal agreements with and commitments of the CIC prior to the beginning of project activities will limit these risks.

2. COUNTRY OWNERSHIP

a) COUNTRY ELIGIBILITY

The five countries which form the CIC—Argentina, Bolivia, Brazil, Paraguay and Uruguay—in seeking GEF financing, have ratified the following United Nations Conventions linked to the present project: i) Framework Convention on Climate Change and its main instrument, the Kyoto Protocol; ii) Convention on Biodiversity and iii) Convention on Combating Desertification; and iv) Ramsar Convention on wetlands protection. As agreed in the United Nations Framework Convention on Climate Change, the five countries have presented their respective, first national communications and inventories. These reports have identified vulnerability to climate change, future climate scenarios and the adoption of the necessary measures for adaptation to Climate Change. These actions reflect the regional advances to fulfill international treaties related to environmental issues.

b) COUNTRY DRIVENNESS

In 1967, the governments of Argentina, Bolivia, Brazil, Paraguay and Uruguay established the Intergovernmental Coordinating Commission (CIC) as the coordinating organisation during the First Meeting of the Ministers for Foreign Affairs of the la Plata Basin, and, two years later, signed the la Plata Basin Treaty, the main legal instrument of the Basin during 1969. The CIC was created as the permanent Basin organisation "in charge of the promotion, coordination, and follow up of multinational integrating development programs in the la Plata Basin, with the technical and financing assistance of international agencies and to execute the decisions approved the Ministries of Foreign Affairs." Within the Treaty, a series of complementary agreements created different specialized bodies that have been designed with specific competencies in the Basin, including FONPLATA, a financing agency, and the Intergovernmental Committee for the Paraguay-Parana Waterway (CIH), an inter-modal transportation agency; technical entities, including the Unit for Projects; the CIC Commission with its political and technical representation; and the Office of the Secretary General. The Treaty also allows for independent binational or trinational agreements to focus on specific issues, creating numerous other organisations and programs. This institutional framework for regional integration is reaffirmed by the Asuncion Treaty, which created the MERCOSUR in 1995, as an incentive for intraregional and international trade for the five countries.

Since its creation, the CIC has concentrated on carrying out projects, studies, programs and works of mutual interest related to hydrology, natural resources, transportation and navigation, soils and energy. The comprehensive study of the natural resources of the la Plata Basin, carried out by the OAS during the 1970s, was particularly important for the implementation of energy and transport actions (CIC-OAS, 1973). The report identified critical environmental zones, such as the Pilcomayo and Bermejo sub-basins with the highest erosion and sediment transport rates measured in the world, and the Upper Paraguay-Pantanal sub-basin, with its wetland ecosystem and key role for water regulation in the whole la Plata Basin. Since 2001, with GEF financial support, the CIC carried out

consultations and prepared the "Framework Program for the Sustainable Management of the Water Resources of the la Plata Basin with respect to the Effects of Climate Variability and Change," with the technical and administrative support of DSD/OAS and UNEP under the established policies of the Program Steering Council.

The execution of this Framework Program is proposed in the Action Plan for the la Plata Basin approved by the CIC in 2003, which identified the main topics of common interest for the regional development of the la Plata Basin: i) capacity building on water resources and management to reduce flood and drought vulnerability; ii) integrated water and soil management; iii) enhanced regional integration through the Framework Program for development action; iv) implementation of a "Digital Map" and "Regional Database" and the updating of the Documentation Centre by the CIC General Secretary; v) promotion of environmental preservation through environmental mechanisms compatible with the Basin ecosystems and public participation in environmental management; vi) harmonization and integration of policies among the CIC member states and vi) promotion of education and capacity building on common issues.

3. PROGRAM AND POLICY CONFORMITY

a. FIT TO GEF FOCAL AREA STRATEGIC OBJECTIVES AND OPERATIONAL PROGRAM

The la Plata Basin, extending over some 3.1 million km2, is one of the largest river basins in the world. It includes almost all of southern Brazil, the southeastern part of Bolivia, the southwestern part of Uruguay, the whole of Paraguay, and an extensive portion of central and northern Argentina. The importance of the Basin and its global priority has been highlighted in studies such as the GEF/GIWA Project.

The Basin drains approximately one-fifth of the South American continent, and is comprised of three large river systems; namely, the Paraná River, the Paraguay River, and the Uruguay River. The Paraguay River has an average annual flow of 3,800 m3/s (at Pilcomayo Harbour), the Parana River has an average annual flow of 17,100 m3/s (at Corrientes), and the Uruguay River has an average annual flow of 4,500 m3/s. These last two rivers come together to form the la Plata River, draining to the Southwest Atlantic Large Marine Ecosystem (LME), with an average output of 25,000 m3/s. A large wetland corridor links the Pantanal (a wetland of global significance in the headwaters of the Paraguay River) with the Delta del Parana, at its outlet to the la Plata River, while the Guaraní Aquifer System (1,190,000 km2 in extent) constitutes one of the largest continental groundwater reservoirs in the world. The World Resources Institute defines the la Plata River system as one of the most important river basins in the world, having a great number, variety, and degree of endemism in fish species (in the Paraguay River sub-basin), and the highest numbers of native birds (the Parana River sub-basin).

Superimposed upon this natural resource base, the mineral resources, forests, and soil fertility favour economic development in the la Plata Basin, sustaining 70% of the five countries' GDPs. The present population exceeds 100,000,000 people, with 57 cities having more than 100,000 inhabitants—including four capital cities: Buenos Aires, Brasilia, Asunción, and Montevideo. The Argentine, Brazilian and Uruguayan economies, with a strong agro-pastoral component, have a significant level of industrial and service production, while Bolivia and Paraguay have agricultural-based economies. This level of economic development demands effective and efficient communication and multimodal transportation systems, of which the hydrological system is a fundamental element, interconnecting production, supply and consumption centres and harbours, from which products are exported to the world. The City of Sao Paulo, one of the largest cities and industrial concentrations in the world, is located in the Basin headwaters, tributary to the Parana River.

To sustain this level of economic activity, more than 150 dams, generating more than 92,000 MW of electricity and capturing about 60% of the Basin's hydrological potential, have been built within the Basin, 72 of which exceed 10 MW. Three dams are binational: Itaipú (12,600 MW) and Yacyretá (3,100 MW) located on the Paraná River, and Salto Grande (1,890 MW) located on the Uruguay River. These dams have substantially changed the fluvial ecosystems through flow regulation, although, with coordinated dams management and the slight improvements in runoff foreseen in climate forecasts, they also could offer significant social, economic and environmental benefits. Consequently, the climate is a determining factor for this heterogenic hydrological system: unlike the Amazon River Basin situated immediately north of the la Plata Basin, the influences of climate change and variability dominate those of the humans on the landscape. The relatively scarce rainfalls and high evaporation levels define the arid and semiarid zones to the west (the Gran Chaco Americano), while strong rainfalls and runoff, due in part to deforestation, characterize northeast. The great Pantanal wetland has a key role in the storage of runoff produced by rainfall in the Upper Paraguay River sub-basin, and delays for almost six months the maximum flows to the Parana River, avoiding downstream flooding.

The convergence of the importance of the water resources of the la Plata Basin as a high value global environmental resource and as an area critical to human economic and social development in this densely settled region provide an ideal case study for GEF OP#9, the Integrated Land and Water Multiple Focal Area Program, allowing the conduct of innovative demonstration projects for reducing contamination, resolving conflicts created by the competing demands of a wide range of stakeholders, and responding to climate-related variations in water flows (GEF IW Strategic Priority IW-3 and GEF CC Strategic Priority for Adaptation--SPA). An essential element of this response will be resolving use conflicts and formulating agreed actions by the Basin governments and their communities, while catalyzing the necessary actions and funding to resolve shared transboundary concerns (GEF IW Strategic Priority IW-1). Supporting such

interventions is the knowledge base available within the sub-region, developed through various national, bilateral and international programs focusing on, amongst others, aspects of integrated water resources management, biodiversity protection and mitigation of soil degradation in critical zones such as the Pilcomayo River, Bermejo River binational basin, Upper Paraguay River and Pantanal, the Maritime Front, and the plains of the Gran Chaco. Notwithstanding, each of these past and present projects stand to benefit from the broader vision and more comprehensive actions proposed within this project on the la Plata Basin. The agreements (policies, programs and plans), both current and foreseen in the context of the la Plata Basin, are necessary tools to reach the 2015 millennium development goals as agreed by the World Summit on Sustainable Development (WSSD) in 2002, where water resources were identified as a key component for economic development and poverty reduction as well as for the rational use of shared natural resources.

b. SUSTAINABILITY (INCLUDING FINANCIAL SUSTAINABILITY)

The SAP formulation process relies on three main elements: (1) scientific studies to fill in the gaps in the scientific knowledge base, (2) pilot demonstration projects to test costs and feasibilities of remedial measures as input to the strategic action program, and (3) public participation and stakeholder involvement in the resolution of conflicts and creation of sustainable strategies for the use of the water and natural resources of the Basin. All of these activities form the foundation for multi-sectorial, multi-institutional, and basin-wide arrangements for the implementation of the SAP.

Project activities and implementation are designed (including the public involvement and stakeholder participation process) to achieve sustainability. Pilot demonstration projects have been selected on the basis of their sustainability, both from the ecological as well as the economic points of view. Studies have been proposed with the purpose of identifying the causes and effects of degradation in the basin. Wherever possible, the project is developing opportunities for the establishment of financial incentives, private sector investment, and cost recovery in environmental management. The pilot demonstration projects will provide actual, working examples of new or refined land and water management actions necessary for the sustainable development of the watershed. Use of pilot demonstration projects on this scale highlights issues affecting the sustainable implementation of practices, and allows refinements or modifications to be made prior to large-scale applications.

Further, the implementation of pilot demonstration projects to assess the feasibility and relative cost of actions conducted at specific locations within the Basin will add to this knowledge base so that it can be synthesized into a strategic program of action to implement specific management measures within the Basin These pilot demonstration projects are not only testing approaches but are also enhancing capacity and public awareness. Indeed, acquisition of data is vital to the successful preparation of an effective SAP. Creation of the institutional and

human capacities to obtain and use these data is also critical to the long-term success of the SAP.

This project will seek to demonstrate that the involvement of basin stakeholders in watershed management is the key to the success. By engaging the Basin communities in a practical, "hands-on" manner, the identification and field testing of remedial measures, as well as in a dialogue process, actions formulated through the project process will benefit from these communal insights and experiences, and be far more acceptable to the communities as sustainable alternatives to current, destructive practices. Public involvement and participation is a real tool for insuring long term sustainability in Integrated Water Resources Management.

Since most of the issues are community-based, the prospect for sustaining and/or replicating project-supported activities following the completion of GEF funding is high. In addition, some minimal effort to exchange information could bring potentially considerable global benefits to the basin as a whole.

The PDF-B process identified a framework within which interventions are proposed to be implemented over a 15-year period, in three successive 5-year phases. The baseline remains weak in view of the complexity of the problems and the size of the Basin, hence such disparity between the level of funding and the magnitude of the problems needs to be addressed. To this end, GEF support and the leveraged co-funding are likely to be critical factors in the sustainability of this effort, supporting the incremental cost of transboundary benefits that extend beyond any one country within this Basin. With this perspective, efforts toward ensuring the sustainability of the results achieved have been integrated into the work programs of relevant agencies since the PDF-B phase of the project. The countries' legal institutions not only form the basis from which to execute the project but also the most important objective of its institutional strengthening and capacity building activities to ensure sustainability. Conduct of these activities within the framework of the CIC will further facilitate enhanced governance capabilities, and development of coordinated and integrated legal and institutional actions, cooperative technical and operational strategies to implement an integrated vision among the Basin institutions, appropriate economic instruments, and a climate for responsible civil participation, founded on relevant technical capacity, student scholarships, regional assistance (horizontal cooperation), and a "Basin spirit" formed within and among the participating institutions.

In the longer term, the Foreign Affairs Ministries and responsible institutions within the five countries will support the economic and financial structures underlying the actions to be executed under the SAP. These actions will be further supported by the thematic groups to be formed in each country, under the National Coordination Units of the Project, that will act as Inter-ministerial Technical Committees to facilitate the integration and involvement of the different Ministries and governmental institutions, and focus the active participation of civil organizations involved in the SAP formulation as a key

element of its social sustainability. Budgetary and other commitments to this end have been included within national fiscal planning and development strategies.

c. REPLICABILITY

The result of the Project (2006-2010) will be disseminated through governmental institutions, nongovernmental organizations, universities and other stakeholder entities participating in the activities. The strengthening of the CIC, including the institutions related thereto in each of the five countries, will permit the development of information transfer mechanisms to share new knowledge and provide for active coordination and horizontal cooperation in the integrated management of the water resources of the Basin. It is expected that representatives of the communities participating in the pilot demonstration projects (Component II) to be executed with local communities will form a consultative committee able to assist other communities in replicating successful interventions, a consortium of expertise able to participate meaningfully in local decision making, and a case study in successful public-private partnership that could serve as the basis for "lessons learned" from this project to be highlighted through the IWRN and IW-LEARN networks. Outside of the la Plata Basin, the Project experience will be transferred through the relevant natural resources management institutions and Foreign Affairs Ministries of the five countries as well as through IW:LEARN and the IWRN. The CIC will be a key instrument in transferring such experience both within and without the region through cooperation agreements with other multinational basin institutions. The information and communication system, to be implemented during the project, will constitute another important mechanism for disseminating and transferring experiences and management tools in order to replicate the institutional arrangements, sustainable practices, technologies and methodologies developed under the auspices of this project. Since all of the proposed activities are multifaceted in nature and include a strong multi-stakeholder participation element which will contribute to the "buy-in" of the project constituencies, the prospect for replicating such activities are high and can be achieved with minimal efforts exchanging relevant information and experience learned. As noted above, the Basin countries individually have included water resources management as a national priority and are working toward development of the appropriate national policies, institutions, and related reforms.

d. STAKEHOLDER INVOLVEMENT

The FSAP, a product of the PDF-B activities, was prepared with the active involvement of responsible governmental institutions in each country, the academic sector, universities and investigatory centers, and civil society. During the preparation process, specialized personnel were present to actively and responsibly include civil organizations in the process. This participative dimension strengthens Basin governance, and is present in each of the Components to be executed during the project, in particular in Component I which proposes a strategic program for stakeholder involvement and participation. Promoting public participation in this project is integral and transversal to the

process, ensuring adequate participation and involvement of the **public and private sectors** as a whole: state, government, academics and universities, NGOs, private companies and organized groups within civil society—with special focus on **gender equity** and **indigenous peoples.** This involvement also will favor appropriations and the social sustainability of the SAP during both its formulation and implementation, consolidation of social capacity, generation of a Basin consciousness, and appropriate and targeted informational and educational programming (see Annex D).

e. MONITORING AND EVALUATION

The Project will meet the standard monitoring and evaluation (M&E) procedures of UNEP (administrative, technical and financial), and include quarterly advance reports, quarterly and annual expense reports, monitoring of co-financing, and mid-term and final evaluations. These actions, in combination with regular meetings of the project Steering Committee, will comprise continuous evaluation of the project. The final evaluation will take place once disbursements have been concluded, and the ex post evaluation will be performed as a final act of Project execution. In this latter evaluation, the CIC, UNEP and the OAS will participate jointly with the countries, with the assistance of external civil, academic, and international agency participants. A detailed Monitoring and Evaluation Plan (Annex E), based upon the Logical Framework (Annex B), will be further elaborated jointly by the national executing agencies and the CIC in close consultation with UNEP-OAS, and will be approved by the Steering Committee. The M&E system will use quantitative indicators as a tool for monitoring and ensuring feedback to decision makers to enable any necessary project modification in a timely manner (adaptive management).

4. FINANCING (for all tables, expand or narrow table lines as necessary)

a) **PROJECT COSTS**

Project Components/Outcomes	Co-financing ($)	*GEF ($)*	Total ($)
1. Strengthening basin-wide cooperation	3,505,630	2,473,500	5,979,130
2. Strategic Action Program formulation	30,161,782	6,536,500	36,698,282
3. Adaptation to climate change	16,596,550	900,000	17,496,550
4. Project management budget/cost*	298,000	820,000	1,118,000
Total project costs	50,561,962	10,730,000**	61,291,962

* This item is an aggregate cost of project management; breakdown of this aggregate amount is presented in the table b) below.

Project Management costs form part of component I /sub-component I.3 as described in text above but have been disaggregated to meet the requirements of the current Section 4 on financing. The project management costs are comprised of project management costs per se (see below table b)) and M&E costs.

** Net of fee

b) **PROJECT MANAGEMENT BUDGET/COST**[1]

Component	Estimated staff-months	GEF($)	Other sources ($) ***	Project total ($)
Locally recruited personnel*				
Internationally recruited consultants* **PCU**	**3X60** ***3X260 staff weeks***	**585,000**		**585,000**
Int'l Tech. Coord.	60 @ US $ 5,000/mo	300,000		
Ass't Int'l Tech. Coord.	60 @ US $ 3,500/mo	210,000		
Bilingual Sec.	60 @ US $ 1,250/mo	75,000		
Office facilities, equipment, vehicles and **communications**		**36,000 ******		**36,000**
Travel**		**99,000**		**99,000**
Miscellaneous				
Total		**720,000**		**720,000**

* Local and international consultants in this table are those who are hired for functions related to the management of project. For those consultants who are hired to do a special task, they would be referred to as consultants providing technical assistance – see c) below. The international consultants fro the Project Coordination Unit will be recruited from within the basin.

**Travel is required within the five country of the la Plata Basin for ensuring proper coordination of project activities. Indeed the basin is vast--3.1 million km2 – hence coordinating all activities from the Plata Commission in Buenos Aires is quite impossible.

*** Counter part funding is used in support of activities only as per below table d)

**** This corresponds strictly to communication costs in support of the PCU. Such costs are crucial for coordinating activities amongst the 5 riparian countries.

c) **CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS**:

Component	Estimated staff-weeks	GEF($)	Other * sources ($)	Project total ($)
Personnel				
Local consultants	2,596 wks @ US $5,000/mo	2,995,000		
International consultants				
Total		2,995,000		

* Info not yet provided by the co-financiers.

d) **CO-FINANCING SOURCES**[2] (expand the table line items as necessary)

Co financing sources			
Name of co- financier	**Type**	**Amount in USD**	**Status**
Government in-kind co-financing			
Argentina	In-kind	7,756,270	Confirmed in endorsement letter

[1] For all consultants hired to manage project or provide technical assistance, please attach a description in terms of their staff weeks, roles and functions in the project, and their position titles in the organization, such as project officer, supervisor, assistants or secretaries.

[2] Refer to the paper on Co financing, GEF/C.206/Rev. 1

Co financing sources			
Name of co- financier	**Type**	**Amount in USD**	**Status**
Bolivia	In-kind	4,095,542	Confirmed in endorsement letter
Brazil	In-kind	6,652,702	Confirmed in endorsement letter
Paraguay	In-kind	4,729,493	Confirmed in endorsement letter
Uruguay	In-kind	2,037,070	Confirmed in endorsement letter
Total Government in kind co-financing		**25,271,077**	
Other			
CPTEC/INPE/MMA -Brazilian Research Center *(II.1 –Hydroclimate Forecast)*	In-kind	6,400,000	Confirmed
A Europe-South America Network for Climate Change - Assessment and Impact Studies" **CLARIS** *(II.1 – Hydroclimate forecast)*	In-kind	650,000	Letter of interest
ITAIPU BINATIONAL *(II.2 – Water quality, biodiversity and Soil degradation)*	In-cash	1,240,000	Confirmed
UNESCO-ISARM Américas *(II.2 – Groundwater)*	In-kind	28,000	Confirmed
UNESCO – IHP *(II.2 – Water Balance)*	In-kind	250,000	Confirmed
PILCOMAYO – **European Union Cooperation** *(II.2 –Water Quality and Contamination)*	In-kind/in-cash	732,500	Confirmed
CARU *(II.2 – Water Quality and Contamination)*[3]	In-kind/in-cash	200,000	To be confirmed
JICA/SEAM-SENASA *(II.2 – Water Quality and Contamination)*	In-kind/in-cash	200,000	To be confirmed
FONPLATA - CAF *(III – Pilot Projects)*	In-cash	2,451,000	To be confirmed
OAS *(I –Legal/Institutional Strengthening)*	In-kind	225,000	Confirmed
Technical Office of Pilcomayo and Bermejo Rivers – Bolivia	In-kind/in-cash	300,000	Confirmed
PROSUR IAI CRN-055 "Program for the study of regional climate variability, their prediction and impacts in the MERCOSUR area" *(II.1 Hydroclimate Forecast System)*	In-kind	155,650	Confirmed
GEWEX / CLIVAR La Plata Basin experiment (LPB) *(II.1 Hydroclimate Forecast System)*	In-kind	3,000,000	Confirmed
National Agency for Scientific and Technological Promotion – Argentina (07-12246) Study on the ocean and atmospheric dynamics of the La Plata River estuary with an integral numeric modeling system. *(II.1 Hydroclimate Forecast System)*	In-kind	100,000	Confirmed
National Agency for Scientific and Technological Promotion - Argentina (07-12402) Climatic trends and scenarios in Argentina. *(II.1 Hydroclimate Forecast System)*	In-kind	120,000	Confirmed

[3] Cost of water-quality sampling campaigns for the next five years.

Co financing sources			
Name of co- financier	**Type**	**Amount in USD**	**Status**
National Agency for Scientific and Technological Promotion-Argentina (07-14420) "Scientific and technological bases for the study and forecast of mesoscale precipitating systems over Argentina. Support for a flood alert system" *(II.1 Hydroclimate Forecast System)*	In-kind	140,000	Confirmed
CIMA - UBA Climate variability in different temporal scales over South America. *(II.1 Hydroclimate Forecast System)*	In-kind	15,000	Confirmed
UBACYT-UBA Distribution of extreme precipitations in a context of nonstationary climate. *(II.1 Hydroclimate Forecast System)*	In-kind	15,000	Confirmed
ITAIPU Binational, "Programma Cultivando Agua Boa" *(II.2 Integrated Water Resources Management)*	In-cash	7,500,000	Confirmed
Comibol *(III Contamination (Pilcomayo River))*	In-kind	340,666	Confirmed
Pilcomayo *(III Contamination (Pilcomayo River))*	In-kind	228,069	Confirmed
Waterway's Intergovernmental Committee (**CIH)** *(Component IV)*	In-kind/in-cash	1,000,000	Confirmed
Total other co-financing		**25,290,885**	
Grand total co-financing		**50,561,962**	

E) **COST BREAKDOWN PER COMPONENT. (SEE ANNEX 9 FOR PRELIMINARY BUDGET IN UNEP FORMAT)**

	GEF	Government Counterpart	Other Counterpart	Co-Financing	TOTAL
Component I					
Strengthening basin-wide cooperation	**1,823,000**	**2,823,850**	**0**	**315,500**	**4,962,350**
Technical and Institutional Capacity Building	1,129,500	2,299,750	0	225,500	3,654,250
Harmonization of Conceptual, Legal and Institutional frameworks	60,000	79,500	0	0	139,500
Decision Support System	634,000	444,600	0	90,000	1,168,600
Public Participation	**650,000**	**366,280**	**0**	**0**	**1,016,280**
Communication and Promotion of Public Participation	200,000	162,791	0	0	362,791
Education for Responsible and Conscious Public Participation	250,000	203,489	0	0	453,489
Public Participation Promotional Fund (PPPF)	200,000	0	0	0	200,000
Project Management and Evaluation	**820,000**	**298,000**	**0**	**0**	**1,118,000**
Project Management	720,000	0	0	0	720,000.00
M & E	100,000	298,000	0	0	398,000.00
Total Component I	**3,293,500**	**3,488,130**	**0**	**315,500**	**7,097,130**

	GEF	Government Counterpart	Other Counterpart	Co-Financing	TOTAL
Component II					
Integrated Water Resources Management	**4,491,500**	**7,231,231**	**7,500,000**	**1,610,000**	**20,832,731**
Water Quality and Contamination Assessment and Monitoring	1,391,500	1,851,338	0	760,000	4,002,838
Integrated Management of Groundwater: SAYTT	1,100,000	1,827,568	0	0	2,927,568
Integrated Water Balance	400,000	1,483,525	0	250,000	2,133,525
Biodiversity Management	900,000	665,000	7,500,000	600,000	9,665,000
Control of Land degradation	450,000	1,082,000	0	0	1,532,000
Identification of Sustainable Development opportunities	250,000	321,800	0	0	571,800
Pilot Demonstration Projects	**1,000,000**	**6,782,316**	**568,735**	**2,801,000**	**11,152,051**
Biodiversity (Parana River)	250,000	2,595,000	0	1,000,000	3,845,000
Forecasting System (Paraguay-Paraná)	250,000	2,558,300	0	641,000	3,449,300
Use Conflict (Cuareim-Quaraí)	250,000	282,616	0	610,000	1,142,616
Mining Contamination (Pilcomayo)	250,000	1,346,400	568,735	550,000	2,715,135
SAP Formulation	**1,045,000**	**1,968,500**	**1,000,000**	**700,000**	**4,713,500**
TDA and SAP Preparation	945,000	1,968,500	0	700,000	3,613,500
Specific studies	100,000	0	1,000,000	0	1,100,000
Total Component II	**6,536,500**	**15,982,047**	**9,068,735**	**5,111,000**	**36,698,282**
Component III					
Adaptation to climate variability and change					
A hydroclimatic forecasting system for the la Plata Basin	900,000	5,800,900	0	10,795,650	17,496,550
Total Component III	**900,000**	**5,800,900**	**0**	**10,795,650**	**17,496,550**
TOTAL	**10,730,000**	**25,271,077**	**9,068,735**	**16,222,150**	**61,291,962**

5. INSTITUTIONAL COORDINATION AND SUPPORT

a. CORE COMMITMENTS AND LINKAGES

The OAS undertook a series of studies on the natural resources of the la Plata Basin during the 1970s and 1980s. These identified potential opportunities and limitations for economic and social development in the Basin. The report also

noted the Basin great hydroelectric potential and the development potential using the main tributaries for navigation. Critical areas also were identified: the Pilcomayo and Bermejo River basins, with great soil erosion rates and sedimentation concerns, and the Pilcomayo River, with serious environmental impacts due to mining activities, were noted as specific "hot spots." Further, hydrological analysis of the basin showed the importance of the Pantanal wetland as a runoff buffer area as well as for its biodiversity value.

The first GEF efforts in international waters in the la Plata Basin were justified to attend to the priority issues identified in these initial studies and by the emerging realities of the la Plata River and its Maritime Front. These projects in general were successful in dealing with specific concerns but, in terms of the broader Basin, represent uncoordinated opportunities. The proposed project provides the linkages and context for those ongoing and previous activities developing the coordination framework.

The active GEF funded projects in the Basin are:

- Strategic Action Plan for the Bermejo River (PEA-Bermejo). The Binational Commission for the Bermejo River and Upper Tarija River (Argentina-Bolivia) is looking into sustainable development while mitigating the human induced part of erosion. Natural erosion, exacerbated by anthropogenic action, generates the highest percentage of the sediment load deposited in the Parana River and Port of Buenos Aires, limiting navigation and leading higher transportation costs, to the detriment of the implementation of MERCOSUR. **Total Cost: US $ 25,726,000 (GEF US $ 14,030,000).**

- Implementation of Integrated Management Practices for the Water Resources of the Pantanal and Upper Paraguay River. The Agencia Nacional de Aguas (ANA) of Brazil is developing a program for the integrated management of the water resources of the Upper Paraguay River Basin, in which land use changes are affecting the world's largest wetland, the Pantanal, and its biodiversity. This natural reservoir regulates the hydrology of the entire la Plata Basin, retaining water during 6 months and limiting flooding downstream. The Integrated Water Resources Management Plan will contribute to the protection of the headwaters of the Plata system. Total Cost: **US $ 16,403,000 (GEF US $ 6,615,000).**

- Environmental Protection of the la Plata River and its Maritime Front, to Prevent and Control Contamination and Restore Habitat - FREPLATA. The maritime front of the la Plata River, shared by Argentina and Uruguay, has an enormous biological diversity. Consequently, this project is seeking to improve knowledge and protection of this important ecosystem through the formulation of a TDA. Such technical information will strengthen the knowledge base on coastal issues, which are the ultimate integration of all upstream activities, problems, and threats, and will form a logical input to the

basin wide TDA to be formulated under this proposed Plata project. This project links the la Plata Basin to the South West Atlantic Large Marine Ecosystem. **Total Cost: US $ 8,119,036 (GEF US $ 5,682,290).**

- Environmental Protection and Sustainable Development of the Guarani Aquifer System. The groundwater of the Guarani Aquifer System, which is largely coincident with the la Plata Basin, is to be protected by the four countries which share it (Argentina, Brazil, Paraguay and Uruguay). A management plan for the environmentally development of the aquifer is under formulation with GEF resources. Together with the SAYTT groundwater work planned under the proposed la Plata project, the Guarani project will contribute to a better understanding and subsequent management of the main aquifer systems in the Plata basin, including development options and potentials for conjunctive use. These groundwater systems are an essential element of the hydrological system of the la Plata Basin and form the origin of the base flow conditions that sustain the River during periods of low rainfall or drought. **Total Cost: US $ 26,760,000 (GEF US $ 13,400,000).**

- Sustainable Land Management in the Transboundary Ecosystem of the Gran Chaco Americano. Although still in the PDF-B stage, the project is anticipated to be developing a Subregional Action Program for the sustainable development of the Gran Chaco Americano, within the legal framework of the Convention on Combating Desertification. This Program is being developed by Argentina, Bolivia and Paraguay. The information generated through this initiative will support the proposed Plata project and its TDA/SAP formulation by complementing and enhancing the land degradation component, as the Gran Chaco is largely coincident with the la Plata Basin. **Total Cost: US $ 14,000,000 (GEF US $ 6,000,000).**

In addition to those mentioned above, other projects, such as for example the EU funded Master Plan for the Pilcomayo River basin, are also being executed, all without an integrated framework to ensure coherent efforts and an efficient use of human resources and financing applied. Hence again the proposed Plata initiative will look into coordinating all existing efforts under a consolidated management framework.

Furthermore, these proposed actions are consistent with the UNEP programme of work that provides the framework for GEF project interventions and is built on four main pillars:

- Environmental assessment, analysis and research;
- Development and demonstration of tools and methodologies for improving environmental management;
- Strengthening the enabling environment so that countries can more effectively implement commitments made as Parties to various environmental conventions; and

- Management of transboundary ecosystems, with the development of the GEF portfolio building on the experience gained through previous transboundary water projects that involved the formulation of Transboundary Diagnostic Analyses and Strategic Action Programs for a variety of freshwater basins and Large Marine Ecosystems (LMEs).

Further, the proposed actions are specifically in line with the principals of UNEP's Environmentally Sound Management of Inland Waters (EMINWA) integrated watershed management planning process and will contribute in some form to the implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA) in Latin America.

UNEP has extensive experience as a GEF Implementing Agency for International Waters projects in the Latin America and Caribbean Region, including those in the Amazon River Basin, the São Francisco and Upper Paraguay River basins in Brasil, the San Juan River Basin in Costa Rica and Nicaragua, and the Bermejo River Basin in Bolivia and Argentina, having demonstrated considerable experience in watershed management.

b. CONSULTATION, COORDINATION AND COLLABORATION BETWEEN IAS, AND IAS AND EXAS, IF APPROPRIATE.

C) PROJECT IMPLEMENTATION ARRANGEMENT

The arrangements for Project execution are based on those used during the PDF Block B phase and are included within the functional structure of the CIC. As outlined in the Organigram presented on page 34 of the Core Document, a Steering Committee (SC) will be formed to orient project execution. It will be composed of (1) a political representative and (2) a technical representative from each of the five countries, and (3) a second technical representative from each country to cover specific priority as the needs arise. UNEP and DSD/OAS will also form part of the Steering Group. Representatives from co-financing agencies may be invited by the CIC as the need arise. The Project Director and National Coordinators will participate in the Steering group meetings and will act as the Secretariat. The United Nations Development Programme (UNDP) and The World Bank as well as other implementing agencies could be invited to participate in an ex-officio capacity.

The SC, as main project authority, shall establish the execution baselines, and consider and approve annual operation plans and budgets, as well as quarterly and annual technical and financial reports. The Steering Committee will seek consensus of its members. UNEP, as Implementing Agency, is responsible to the GEF for decisions relating to contracts, terms of reference, and financial matters

relating to the project. Decisions on these matters will be taken by UNEP in consultation with the SC, OAS and CIC.

The Coordinating Unit of the Project is composed UNEP/GEF, GS/OAS, the Project Director and the Technical Coordinators (international and national). The International Technical Coordinator will coordinate and supervise all technical activities undertaken at the national level under each of the National Project Units and will be in charge of writing the reports, in particular the TDA and SAP. The coordination of counterpart activities in country organisations will be jointly carried out with the national coordinators to ensure the best possible articulation with national programs and organisations.

The Secretary General of the CIC will be the Project Director. The execution of the project will be done by national institutions under the coordination of the National Project Units (NPUs). Each NPU will have a National Coordinator for the in-country coordination of project activities. The National Coordinators will coordinate national project execution and convene and coordinate meetings of the Inter-ministerial Working Groups (IWGs). As done during the PDF-B, Thematic Groups to address specific and sectoral issues and coordinate actions of transboundary nature will continue to meet as the need arise e.g. for issues related to the alert system, management of land use and soil degradation, water quality, biodiversity, navigation and electric power generation. The NPUs could be strengthened by Young professionals with scholarships (see point 1.2).

UNEP and OAS will support Project execution. OAS, due to its historic involvement in the Basin, traditional partnership with UNEP in similar projects within the region, and its role in implementing activities under related projects, will act as Executing Agency and manager of the funds provided to the project by UNEP on behalf of GEF, consistent with UNEP financial reporting requirements. UNEP as the GEF Implementing Agency will be responsible for overall project supervision to ensure consistency with GEF and UNEP policies and procedures, and will provide guidance on linkages with related UNEP and GEF-funded activities. The UNEP DGEF will monitor implementation of the activities undertaken during the execution of the project and will be responsible for clearance and transmission of financial and progress reports to the Global Environment Facility. UNEP retains responsibility for review and approval of the substantive and technical reports produced in accordance with the schedule of work.

The Project will contract local experts selected by the International and National Coordinators, with the approval of the OAS and UNEP.

ANNEX A: INCREMENTAL COST ANALYSIS

1. **Broad Development Goals**. The goal of this project is to support the initial implementation of the Framework Program, by formulating a Strategic Action Program (SAP) for the la Plata Basin, and creating the institutional and legal framework, and technical capacity for its implementation. The Framework Program integrates on-going projects and programs executed under the la Plata Basin Treaty coordinated by the Inter-governmental Committee for the la Plata Basin (CIC,) and by binational and trinational committees created under the la Plata Treaty. More particularly, the Program integrates on-going and under-preparation projects supported by the GEF for addressing specific environmental issues. Government investments, private investments, and associated financing are all taken into account within the execution of the Framework Program.

The project contributes to a higher objective set forth by the five signatory countries to the la Plata Basin Treaty--Argentina, Bolivia, Brazil, Paraguay and Uruguay--as coordination of actions and investment in the la Plata Basin for the sustainable management of its water resources. Consequently, baseline investment is at the essence of this Project.

Finally, the project initiates efforts on adaptation to the Climate Variability and Climate Change, with the ultimate goal of mitigating their negative impacts and capitalizing on the opportunities that they provide. Thus, while coordinating all water management related actions, it introduces adaptation to climate variability and change as a cross-cutting issue, mainstreaming it throughout all projects and actions.

2. **Baseline Situation**. The baseline situation consists of long-term development programs (10–15 years in duration) being executed by the individual Basin countries under their national economic development programs. These programs include investments in: i) sanitation, water supply and transportation which are the responsibilities of various levels of government; ii) hydroelectric power generation which is the responsibility of several binational and/or trinational entities; and iii) other environmental management activities that are being executed by governmental and/or private agencies that require CIC coordination. These latter activities include ongoing environmental monitoring programs, informational programs, and related activities at the national and local levels. In addition to these investments, the governments of the Basin countries, together with the respective representatives of the private sector, are investing in the creation of institutional capacity within the subbasins of the la Plata Basin within their national jurisdictions. The creation of Basin Committees in Brasil, and the development of environmental impact assessments of the effect of agro-industrial activities on surface and ground waters throughout the Basin, are examples of this type of investment.

The total baseline of the Project is estimated at US $ 15.24 million, as set forth in the Incremental Cost Matrix of this annex.

In addition to these long-term national development programs and investments in specific sub-basins, FONPLATA, the financing facility created to support the implementation of actions under the la Plata Treaty, through the various multi-national committees, is supporting the execution of associated projects for a total of US $ 109.56 million (see Annex 6). FONPLATA associated financing includes the *Construction of the Port and Coastal Defenses in the City of Formosa*, in Argentina, for US $ 7.1 million; the *Integrated Development of the Southern Region of the City of Formosa*, in Argentina, for US $ 9.2 million; the *Studies and Projects for Arroyo Cleanup in the City of Posadas*, Misiones, in Argentina, for US $ 2.24 million; the local counterpart financing program for the IDB Project 1118/OC-AR, *Emergency Program for Flood-affected Areas, with*

Special Emphasis on the Province of Santa Fe, in Argentina, for US $ 51 million; funds allocated to the implementation of the *Program for the Improvement and Optimization of Solid Waste Management in the Metropolitan Area of Buenos Aires*, CEAMSE, in Argentina, for US $ 27.65 million; the *Program for the Recovery of Degraded Areas and Preservation of the Arroyo Soter*, SOTER PROGRAM, Municipality of Campo Grande, in Brazil, for US $ 6.15 million; the execution of works for the *Supply of Potable Water in the Border Departments of Concepcion, Itapua, Amambay, Pte. Hayes, Canindeyu, and Alto Paraguay*, in Paraguay, for US $ 3.8 million; the *Pre-investment Studies and Execution of Works for the Construction of a Multi-purpose Port Terminal for the City of Pilar, in the Department of Neembuco*, in Paraguay, INVESTMENT PHASE, for US $ 0.5 million; the *Zoning Studies of Flood-prone Areas of the Paraguay River*, also in Paraguay, for US $ 0.25 million; the *Clean-up Plan Final Design Studies for the Countryside, Departments of Colonia, Durazno, Lavalleja, Paysandu, Salto, San Jose, Soriano, and Treinta and Tres*, in Uruguay, for US $ 0.95 million; the *Master Plans for the Ports of Nueva Palmira and Fray Bentos*, also in Uruguay, for US $ 0.52; non-reimbursable technical cooperation support for the *Paraguay-Parana Waterway, Ports of Caceres and Nueva Palmira* for US $ 0.15 million; and non-reimbursable technical cooperation support to the *Inter-governmental Committee of the Paraguay-Parana Waterway* for studies on the development of the Paraguay-Parana Waterway Program's Information System for US $ 0.05 million. Additional associated financing, including the PILCOMAYO Project for a total of about US $ 16.5 million, brings the total associated financing to about US $ 126.1 million (see Annex 7).

3. **GEF Alternative Scenario**. The studies carried out during the Framework Program formulation demonstrate the existence of a group of activities that deal with some of the problems to be addressed by the Program, summarised in the baseline scenario. Some of these activities are already being supported by the GEF, extending transboundary benefits to portions of the Basin. Nevertheless, currently allocated funds are insufficient to reach the development objectives of this project as envisioned by the five Basin countries (see the Logical Framework Analysis, Annex B.) The alternative scenario consists of the implementation of those actions, as set forth in the Framework Program, to coordinate on-going and programmed actions and investment in the la Plata Basin for the sustainable management of its water resources. The alternative scenario also includes enabling actions for adaptation to Climate Variability and Climate Change. The alternative scenario includes investments during the five years of the Program implementation, which requires additional resources being sought from the GEF, as well as additional investments from national counterparts and donor institutions. The governments of the Basin are committed to making these financial contributions, and this commitment extends across all governmental levels, (federal, national, state, provincial, departmental, and municipal). The cost of the project under this scenario is estimated at about US $ 190.0 million. The incremental cost, by which the alternative scenario exceeds the costs of the baseline situation, is estimated at about US $ 66 million. About 85% of this cost, or US $ 54 million, is the estimated financial and in-kind contribution of local and national stakeholders. In addition to the US $ 25,000 and US $ 700,000 PDF Block A and Block B grants, respectively, already disbursed, GEF is requested to finance about US $ 12.00 million, or about 15% of total incremental cost.

4. **Global Benefits**. The la Plata Basin is in a complex climatic region, with important “gaps” in the available data which generate uncertainties for the modeling of spatial, temporal and global interrelations. The climate is a determining factor for this heterogeneous hydrological system. The five countries of the Basin are already investing in, and coordinating, efforts to address some specific and pressing issues, such as: i) high sediment transport rates–of approximately 100 million tons/year in the Parana River (at Corrientes) originating largely in the Bermejo River Basin–and associated soil loss, navigation problems, water quality deterioration

and problems of infrastructure maintenance; ii) the deterioration of ecosystems of global importance such as the Pantanal, the world's largest wetland; iii) soil degradation in the Gran Chaco; iv) degradation of marine and riverine biodiversity especially at the maritime front of the la Plata River and the South West Atlantic Large Marine Ecosystem; and iv) protection and sustainable management of groundwater as in the case of the Guarani Aquifer System. Global benefits likely to arise from the execution of this project include enhanced institutional capacity to the regional level; strengthened institutional capacity at the country level; harmonized legal and institutional frameworks within the Basin; reduced risk associated with regional scale hydrological events; improved monitoring, information and forecasting systems; a framework for the integrated management of surface and ground water resources; and protection of the large wetland corridor that links the Pantanal (in the headwaters of the Paraguay River) with the Delta of Parana, at its outlet to the la Plata River. Creation of capacity to mitigate the negative effects of climate change and climate variability also is transboundary (global) benefit expected to arise from the execution of this project.

5. **Component I: Strengthening basin-wide cooperation capacity for integrated hydro-climate management**. The principal current expenditures by the Basin countries are limited to the support of the CIC, created by Treaty in February of 1967. The baseline cost of this element is estimated at US $ 2.87 million. The primary function of the CIC is to "…*harmonize and integrate the physical development of the la Plata Basin are areas under its direct influence*…" (Article 1 of the Treaty). In terms of this mandate, the CIC had facilitated multilateral agreements with respect to: (i) navigation, (ii) rational use of waters, (iii) preservation of biodiversity, (iv) promotion of industrial and economic development, and (v) cooperation in education, sanitation, and environmental improvement projects. The CIC is assisted in such endeavours by various bilateral and trilateral entities, including:

- Comisión Binacional Administradora de la Cuenca Inferior del río Pilcomayo (Argentina – Paraguay)
- Comisión Binacional para el Desarrollo de la Alta Cuenca del Río Bermejo y del Río Grande de Tarija (Argentina – Bolivia)
- Comisión Trinacional para el Desarrollo de la Cuenca del Río Pilcomayo (Argentina – Bolivia – Paraguay)
- Comisión Administradora del Río de la Plata (Argentina - Uruguay)
- Comisión Técnica Mixta del Frente Marítimo (Argentina - Uruguay)
- Comisión Administradora del Río Uruguay (Argentina - Uruguay)
- Comisión Mixta Argentino-Paraguaya del Río Paraná (Argentina - Paraguay)
- Comisión Técnica Mixta de Salto Grande (Argentina - Uruguay)
- Entidad Binacional Yacyretá (Argentina - Paraguay)
- Comité Intergubernamental de la Hidrovía Paraguay - Paraná (Argentina – Bolivia – Brasil –Paraguay - Uruguay)
- Itaipú Binational (Brazil - Paraguay)
- Comisión Mixta Uruguayo - Brasileña para el Desarrollo de la Cuenca del Río Cuareim (Brasil -Uruguay)

Notwithstanding, the actions within the Basin can be described as dispersed, potentially duplicative, and country-based.

This component builds on the progress made in each of the five countries on the development of policies and instruments to promote public participation in the management and decision-making processes as they relate to sustainable development, in accordance with the principle of accountability in the management of natural resources. The legal frameworks of each country guarantee the participation of the civil society, assigning them responsibilities in different areas of the development and management of natural resources. The differing legal structures of the

participating countries complicate the mechanisms for stakeholder participation. Such is the case in Argentina and Brazil, for example. The fact and form of public participation is not yet fully adopted in the la Plata Treaty, nor in the institutional arrangements for the functioning of CIC. Nevertheless, links have been established with both governmental and nongovernmental organizations of the Basin, and the so-called "Digital Map" of these organizations was developed during project formulation. This database locates the participating institutions and projects according to: i) basins, ii) sub-basins and iii) project coverage in the countries (see http://www.cicplata.org).

Finally, this component includes activities for the management, monitoring and evaluation of the Project. These activities will allow identification of necessary corrective measures and/or changes in the FSAP in order to more effectively address the principle transboundary issues identified in the Macro-TDA. The Monitoring and Evaluation (M&E) Plan (Annex E) is an integral part of Project Management and seeks to provide a means of monitoring and evaluating progress and performance in all components of the Project, and achievement of its goals. The M&E Plan is based upon the indicators set forth in the Logical Framework (Annex B.)

The total cost of the alternative scenario is estimated at US $ 9.9 million, of which US $ 3.3 million is requested from the GEF.

6. **Component II: Strategic Action Program formulation**.

This Component includes three elements necessary for the development and implementation of the principles of integrated water resources management in the la Plata Basin. Activities include ongoing programs for the management of land and water degradation in the Bermejo River basin, Pantanal and Gran Chaco (funded through UNEP-GEF), and the Pilcomayo River basin (funded by the EU). Biodiversity protection, including activities undertaken at Ramsar sites, and the control of exotic species such as the “Mejillón Dorado,” also are actions upon which this Component builds. In addition, each country operates and maintains their own water quality monitoring programs, albeit at differing levels of intensity and coverage. Some water quality monitoring is carried out by binational and trinational organizations under various multilateral treaties. Currently, CIC has published methodological guidelines for water quality monitoring in the Basin. Regional programs, such as the ISARM-UNESCO-OAS Project documenting the transboundary Yrendá-Toba-Tarijeño (SAYTT) Aquifer System and Guaraní Aquifer System projects, and the Hydrological Balance Project of the International Hydrological Program of UNESCO (IHP) also are elements associated with this Component.

In addition to the hydrological and meteorological investigations, the execution of four pilot demonstration projects at selected sites in the Basin is proposed. These pilot demonstration projects were selected to provide local management experience, test the feasibility of the proposed measures, and determine the actual costs of the interventions required to address the identified environmental issues. Four such pilot demonstration projects are proposed, focusing on specific issues identified in the Mega-TDA:

- Pilot #1. Creation of local management experience in reducing mining contamination and water course sediment deposition in the Pilcomayo River targeted at improving knowledge of this critical transboundary issue related to water quality and soil erosion, transport and sedimentation, taking into account the transboundary effects in Argentina and Paraguay, both located downstream.

- Pilot #2. Implementation of a monitoring and alert system for risk management (prevention, contingency and rehabilitation) to minimize flood and drought-related

disasters and implement mitigation actions in partnership with Civil Defence authorities through improved knowledge of hydrological extreme events and development of contingency plans.

- Pilot #3. Integration of water resources management capacities at the local level and harmonization of water-use at the national and transboundary levels through participation by local stakeholders and the existing Binational Commission for the Cuareim/Quarai River Basin to conserve and/or improve environmental quality through the rationale use of water by solving actual conflicts, such as those involving water use for irrigated crops and rice.

- Pilot #4. Strengthening of integrated water resources management capacity in a region where two of the most important transboundary dams--Itaipu and Yacyretá--are located by developing a management plan to preserve aquatic resources, including a documented framework to harmonize legislation and strengthen local stakeholder capacity in their basins.

The Strategic Action Program for the la Plata River Basin is the logical outcome of the Transboundary Diagnostic Analysis to be informed by the activities to be undertaken within this Component.
The total cost for the alternative scenario is US $ 40 million, of which about US $ 6.5 million is requested from the GEF.

7. **Component III: Adaptation to climate change.**

The activity under this Component is the creation of a hydroclimate forecasting system for the la Plata Basin, to predict more accurately the hydrological effects of climate variability and change, better mitigate the effects of floods and droughts, and help adapt current and future sustainable development activities to future climate and hydrological regimes. Current expenditures by the five Basin countries include investments in meteorological and hydrological monitoring and alert systems, primarily in Argentina and Brazil. Investments are required to extend this system within the la Plata Basin and to better integrate the existing systems on a regional basis. Investments in several critical sub-basins are also currently made for the implementation of Integrated Water Resources Management (IWRM.) Additional investments are required to integrate surface and ground water into an Integrated Hydrological Balance for the la Plata Basin; to integrate existing water quality and contamination monitoring systems, and share databases; to develop a regional strategy for biodiversity management; and to develop knowledge on soil suitability and vulnerability to desertification. The five Basin countries have adopted a National Communication (NC) pursuant to the requirements of the United Nations Framework Convention on Climate Change (UNFCCC,) with Argentina and Brazil completing their Second National Communication (SNCs,) setting forth, not only national responses to climate change and variability, but also a proposal for a regional approach to this shared concern. The activities set forth herein are wholly consistent with the regional approach and recommended strategy of institutional strengthening, capacity building, and scenario-response generation identified in the NCs and SNCs of the Basin countries.

The total cost for the alternative scenario is US $ 17.5 million, of which about US $ 0.9 million is requested from the GEF.

Incremental Cost Matrix

Component	Category	Value	Local Benefits	Global Benefits
I: Strengthening basin-wide cooperation	Baseline	2,898,858	Development of national capacity, institutions and laws for water resources management; Varied levels of public participation in local projects.	Extension of institutional capacity to the regional level; Stakeholders involved in the management of the Basin.
	Alternative	9,995,988	Improved institutional capacity for water resources management at the local level; Social capital and equity developed; and The CIC and Basin countries continually evaluate the Project and make real-time adaptive adjustments.	Harmonized legal and institutional frameworks for the integrated management of the Basin, accompanied by development of social capital, resource availability and improved human resource capabilities; Informed stakeholders work for the integrated management of the water resources of the la Plata Basin; the Implementing and Executing agencies monitor, evaluate and adjust the project according to GEF requirements.
	Increment	7,097,130 (GEF 3,293,500)		

Component	Category	Value	Local Benefits	Global Benefits
II: Strategic Action Program formulation	Baseline	826,705	Actions articulated by sector at the national level; Critical problems are addressed at the local level.	Fragmented capacity at the regional level; No consideration of trans-boundary consequences.
	Alternative	41,018,995	Country-based development actions lacking coordination, except perhaps at the bilateral or trilateral levels; Improved quality of life for local communities, and availability of information to be used in other localities to resolve environmental problems; National consensus on local actions in the Basin.	SAP focuses holistic, multi-sectoral approaches to environmental development and economic development in the Basin as envisioned in Chapters 18 and 21 of Agenda 21; Development and management of the Basin is undertaken in a coordinated manner to the benefit of all; Actual examples of approaches to resolving critical regional environmental problems at the local level that can be replicated elsewhere.
	Increment	40,191,390 (GEF 6,536,500)		
III: Adaptation to climate change	Baseline	11,518,008	Actions articulated by sector at the national level.	Fragmented capacity at the regional level.
	Alternative	17,496,550	Enhanced access to natural and physical "capital" and increased knowledge is available. Risks to vulnerable communities are reduced and sustainable development and use of the Basin water resources are enhanced.	Reduction of risk associated with regional scale hydrological events, and improved monitoring, knowledge and forecasting systems. Improved knowledge of extreme events and capacity to minimize land degradation, biodiversity losses and inappropriate uses of surface and ground waters by managing supply and demand for water.
	Increment	17,496,550 (GEF 900,000)		
TOTAL	Baseline	15,243,571		
	Alternative	80,028,641		
	Total Increment of which GEF is	64,785,070 10,730,000		

ANNEX B: PROJECT LOGICAL FRAMEWORK

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
DEVELOPMENT OBJECTIVE *The governments of Argentina, Bolivia, Brazil, Paraguay and Uruguay coordinate actions and investment in the La Plata Basin for the sustainable management of its water resources, adapting to the Climate Variability and Climate Change, mitigating their negative impacts, and capitalizing on the opportunities provided.*	- A stronger CIC for the management of the la Plata River Basin, with priority attention to the aspects of integrated management of water resources, and adaptation to climate change and climate variability. - Improvement in the flood and drought prevention system in the la Plata River Basin measured by: o Reduced length of meteorological forecast period (meteorological conditions, precipitation and temperatures,) and higher degrees of certainty in diagnoses (weather condition) and forecasts o Use of integrated reservoir management models in the Parana and Uruguay subsystems taking into account flood and drought risks o Net benefit increase generated by the use of floodplains, including the reduction in economic losses caused by floods measured in monetary terms and taking as a reference the estimated loss as a consequence of the 1983 and 1995 floods - River navigability improvement measured by: o Decrease in dredging volumes o Increase in tons carried along the waterway - Control of the incremental erosion generated by measured-anthropogenic activities, as suspended sediments to be determined in the rivers of the la Plata River Basin - Reduction in economic losses, deaths and diseases caused by extreme events in the Basin - New business endeavours due to land-use change –i.e. agriculture to fishery and/or tourism, and number of people they employed - Number and scope of agreements among the countries to coordinate actions - Increased investment	Reports on the number of the institutions of the countries and technicians involved in the tasks promoted by the CIC and number of coordination agreements and formalized projects. Official statistics (Official Statistics and Census Agencies.) Reports of climate and meteorology services and forecast services for agriculture and navigation. Reports of meteorological alert and civil defence systems working in a coordinated fashion in the five countries. Coordinated reservoir management models operating in the Parana and Uruguay subsystems taking into account flood and drought management. Operating Plans of the Program showing that actions are planned, scheduled and implemented in an integrated way. Suspended sediments measured in five (5) checkpoints to be determined in the rivers of the la Plata River Basin, comparing the initial values with the ones at the assessment moment. Number of enterprises and employment rates as reported by official agencies Levels of investment as reported by banks, donors, and governmental agencies	The environmental development aspects continue to be a priority in the public agendas of the la Plata River Basin countries. The consolidated Intergovernmental Coordinating Committee of the la Plata River Basin (CIC) is working in an effective, efficient and sustainable way, with the appropriate personnel and equipment. The governments of Argentina, Bolivia, Brazil, Paraguay and Uruguay agree on instruments and mechanisms of planning, implementation and monitoring of the la Plata River Basin. Others involved agree on the la Plata River Basin planning, implementation and monitoring mechanisms and instruments. Financial programs and strategies to support the la Plata River Basin organizations are currently in operation. The civil society and others involved are interested in participating in the la Plata River Basin activities and contributing to its sustainability in the long term.

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
PROJECT PURPOSE *To support the implementation of Phase I of the Framework Program, by formulating the Strategic Action Program (SAP) of the La Plata Basin and its supporting Transboundary Diagnostic Analysis (TDA,) and creating the institutional and legal framework, and technical capacity for the implementation of the long-term Framework Program.*	- Inter-ministerial meetings functioning in all five countries, and the National Project Units (NPU) in each country acting as their Secretariats by the end of the project - Thematic groups functioning under the coordination of the NPU in each country - TDA and SAP completed and endorsed by the five countries by the end of the project - Pilot projects completed with results well-documented and analyzed for their replication, and incorporation on the long-term framework program by the end of the project - Counter-part contributions allocated and documented program by the end of the project - CIC, including the national institutions that conform it, technically apt for the implementation of the long-term Framework Program, with in-house capacity in climate change and climate variability adaptation and mitigation by the end of the project - Funding for the various components of the SAP secured by the end of the project	Reports of counterpart contributions Strategic Action Program (SAP) and Transboundary Diagnostic Analysis (TDA) Letters of endorsement (for the SAP and TDA) from the five countries Letters of commitment for funding SAP components SAP Work Plan	The governments of Argentina, Bolivia, Brazil, Paraguay and Uruguay continue encouraging and supporting the CIC, its national agencies and its Secretariat. The CIC is the appropriate mechanism to coordinate and implement strategic actions within the la Plata River Basin. The legislative agencies of the la Plata River Basin member countries collaborate and participate actively in the activities of the program related to the regulatory-legal framework. The civil society and others involved are interested in participating in the la Plata River Basin activities in the long term.

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
COMPONENT I: STRENGTHENING BASIN-WIDE COOPERATION CAPACITY FOR INTEGRATED HYDRO-CLIMATE MANAGEMENT			
RESULT /SUB-COMPONENT I.1 Legal and Institutional Framework Strengthened. The five countries implement an organizational and management structure for the SAP, advance on the harmonization of their legal and regulatory instruments, and allocate funds and human resources for the execution and further development of the SAP.	- For the fifth year of the Program implementation, the CIC carries out its functions of the la Plata River Basin development coordination and environmental management in an effective and efficient way. Its human resources have the required knowledge, skills and information for the development of their functions. The entity has the necessary auxiliary equipment for its performance. - For the fifth year of the Program implementation, the national institutions making up the National Units of the Program have the necessary human resources and equipment to develop the program activities effectively. - Decision-making support system for the integrated water resources management, elaborated and in operation for the fifth year of the Program implementation. - There is a consolidated and adequate organizational and management structure for the FSAP implementation for the fifth year of the Program implementation. - Horizontal cooperation activities under way. Training courses designed and implemented. Internships and scholarships to participate in the Project activities awarded and executed by the end of the project - There is a consensus on common, overarching conceptual and legal elements of the five countries national legislations by the end of the project	Payrolls of the CIC Secretariat and National Units Participating National Institutions Budgets and counterpart contribution reports Decision-making Support System outputs and queries (hits and visits to the Web site) Horizontal cooperation programs' work plans; expert roster; reports from missions and technical meetings and exchanges. Training courses programs; lists of participants (recipients and professors/ speakers) Internships reports; progress reports; and technical papers and reports National Legislations comparison reports; reports from e-forums and face-to-face encounters, seminars, and meetings	The legislative agencies of the la Plata River Basin member countries collaborate and participate actively in the program activities related to the regulatory-legal framework. The agencies of the la Plata River Basin countries to be institutionally strengthened give their consent and participate in the program activities. The human resources of the different agencies and institutions of the la Plata River Basin accept and participate in the Institutional Strengthening activities aimed at their entities.

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
RESULT / SUB-COMPONENT I. 2 Stakeholders actively involved in the preparation of the SAP and TDA, through their participation in the FPPP, Public Participation Workshops, Training and Education activities, and the Communication and Information System.	Stakeholders participate in the formulation of the TDA and SAP by means of workshops and consultations throughout the project - Communication and Dissemination: Graphic and written advertising –in newspapers and on the Web with periodic updates of information. - Education and Capacity development: - Workshops and training. - Inclusion of topics inherent to the environment and its conservation through the media and publications. - Fund to promote public participation with an Operating Rules of Procedure (eligible criteria, amounts and other requirements) in place.	Web page hits and visits, inquiries, postal mail and electronic mail, telephone inquiries, etc, made by stakeholders recorded with a certain periodicity (monthly, half-yearly, annually) Workshops and seminars programs and list of participants (recipients and professors/ speakers) Operating Manual for the Functioning of the Fund for Promotion of the Public Participation Progress and final reports of Fund's awarded projects	The relevant stakeholders support Program and participate actively in its activities The relevant stakeholders prepare projects to bid for funds to foster public participation Stakeholders receive and provide reliable information about their needs A balance representation of stakeholders' segments and sectors is achieved

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
RESULT / SUB-COMPONENT I.3 Effective and timely operation of the Monitoring and Evaluation Plan of the Project and SAP.	- Implementation of a Management Information System for the execution of the Project, taking into account GEF contribution, other donors' contributions and national counterpart contributions is in place by the end of the project. - The governments of Argentina, Bolivia, Brazil, Paraguay and Uruguay assign responsibilities to perform M & E activities in their National Project Units (NPU) of the la Plata River Basin from the onset of the project. - The International Technical Coordination and the NPU gather and adjust the initial baseline values of the indicators during the first year of the Program implementation - Preparation and distribution of quarterly progress and expenditure reports	Reports from the Project Management Information System (MIS) NPU's monitoring and evaluation personnel assigned to the Project Baseline completed and performance and achievement indicators published Quarter Operational Reports, Half-yearly Reports, Terminal Reports, and Mid-Term and Final Reviews Program activity planning and programming reports (POA) Reports of the Inter-ministerial and Thematic Groups meetings Quarterly Expenditure Statements prepared by the OAS and Counterpart Expenditure Reports	Governmental and non-governmental participating institutions systematically collect and make available relevant information in time and form.

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
COMPONENT II: STRATEGIC ACTION PROGRAMME FORMULATION			
RESULT / COMPONENT II.1 Integrated Water Resources Management for sustainable development. The five countries advance on the establishment of a water quality monitoring system; and an integrated management of the water resources, including groundwater-surface water water-balances, and soil and biodiversity sustainable management.	Integrated Water Resource Management Water quality assessment and monitoring: - la Plata River Basin water quality monitoring network: Database designed and operating after 15 months, Hardware and other equipment and input acquired after 12 months; 20 identified professionals for training activities by areas to be detailed and the curricula and syllabus of the courses, workshops and seminars available 9 months after the beginning of the Project. - Follow-up and assessment of the Monitoring Network: number of analyses done and samples collected on an annual basis; network enhancement plan; reports on lab inter-comparison on an annual basis. - Identification of contamination sources: Database for decision-making purposes, designed, and operating 60 months after the beginning of the Project. - Preparation of a regulatory framework for water quality for the la Plata River Basin countries 54 months after the beginning of the Project. Integrated Management of Groundwater - A basin-wide methodology on Integrated Surface and Groundwater Management for the five la Plata River Basin countries - Atlas of aquifers and sub-basins of the la Plata River Basin as a contribution to the UNESCO-OAS-ISARM Americas - SAP for the SAYTT Water Resources management, addressing issues such as artificial recharge, protection of recharge areas recharge continuity and quality maintenance, conjunctive uses and participatory mechanism, 60 months after the beginning of the Project.	Water Quality Assessments – Operating database Training manuals Network enhancement plan completed and lab inter-comparison reports produced with QA/QC procedures in place Water Quality Guidelines endorsed by the countries through their representatives to the CIC A procedures/guidance manual A geo-referenced database with the basin aquifers and sub-basins Reports from the Guarani Aquifer System and the SAYTT projects demonstrating the use of the methodology for the integrated surface and groundwater management of the aquifer. SAYTT SAP completed and endorsed by the 3 participating countries	The relevant players of the different public and private agencies of the la Plata River Basin support the development of the Program activities. The governments of the five Basin countries support the development of the Program activities at an institutional and political level. The specialized institutions of the five Basin countries encourage and support the activities providing information and data, and technical support. Collaboration and active participation of the social and educational institutions of the la Plata River Basin countries, especially NGOs and the most representative universities.

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
	Integrated Water Balance - Development and adoption of a methodology with the technical assistance of UNESCO-IHP by the end of the project - Integrated Water Balance (IWB) of the la Plata River Basin, considering the two-steps methodology: surface-groundwater balance, and demand-supply balance by the end of the project Biodiversity Management - Harmonized regional strategy for biodiversity conservation (with particular attention to wetlands corridors) of the la Plata River Basin countries within the UN Biodiversity Convention and other international treaties and agreements by the end of the project - Environmental Management Plan for a Ecological Corridor developed by the end of the project - Preparation of a Monitoring System for controlling the introduction of exotic ichthyo fauna by the end of the project - Harmonized regulatory fishery measures amongst the riparian countries by the end of the project Control of land degradation - Preparation of soil maps at common scale in the la Plata River Basin; maps of critical degraded areas; soil-suitability maps; and erosion susceptibility maps, utilizing information from on-going projects: Bermejo, Pilcomayo, Pantanal, and Grand Chaco. - Quantified assessment of the impact of farm machinery	Guidelines for Integrated Surface and Groundwater Management endorsed by the countries through their representatives to the CIC Reports from technical meetings and seminars endorsing the methodology Maps and reports (tabular data) of water balance applying the methodology Harmonized Regional Strategy endorsed by the countries through their representatives to the CIC and presented at the UN Convention Plan for the Demonstrative Ecological Corridor Reports of the technical groups working on the Monitoring System for controlling exotic species Agreements signed by riparian governments on the regulatory fishery measures Basin-wide maps at common projection and scale on land-use, soil-suitability, erosion susceptibility, etc. Report on use of technology and agro-chemicals	

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
	and agrochemicals on soils. - Successful Priority Project in the Paranaense Forest including baseline assessment and root causes analysis of land degradation, development of erosion control measures and soil rehabilitation measures and respective monitoring systems by the end of the project. - Public education and awareness mechanisms defined and implemented by the end of the project. Identification of Sustainable Development Opportunities - Identification and formulation of projects on the use of clean technologies and greenhouse sinks by the end of the project. - Identification and formulation of projects on sustainable tourism: identification of cultural and historic itineraries promotional activities carried out by the end of the project.	Diagnostic on the Paranaense Forest with an inventory of mitigation and rehabilitation measures. TORs for up-scaling the experience of the Priority project to the basin. Input to the SAP Public education and awareness plan Project documents	

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
RESULT / SUB-COMPONENT II.2: Pilot projects completed and feasibility studies and cost analysis available for replication throughout the Basin.	- **PILOT PROJECT FOR A "HYDRO-ENVIRONMENTAL ALERT SYSTEM" AT THE CONFLUENCE OF THE PARAGUAY AND PARANA RIVERS.** (ARGENTINA , BRAZIL AND PARAGUAY). Axis Resistencia-Corrientes (Argentina) – Pilar (Paraguay) - The hydro-environmental alert system using simulation models to predict floods, droughts and contamination spilling, and taking into account safety guidelines in hydro-regulation structures prepared and in operation in the 3rd year of the Project implementation - Contingency plans prepared and implemented with active local participation in the 3rd year of the Project implementation. - Vulnerability maps under different scenarios of Climate Change. - Transboundary Water Alert Committee created and	Forecasting reports and alert communications available to all community members. Contingency plans completed. Hydraulic works completed. Flood maps series (based on different Climate Change scenarios). Reports and minutes of the Transboundary Water Alert Committee.	Public and private institutions in the areas encompassed by the different projects take them, collaborate and participate in their implementation. The articulation and synergy of actions with other flood defence projects are taking place in Argentina with international financing.

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
	functioning. - **PILOT PROJECT TO SOLVE WATER USE CONFLICTS – CUAREIM/QUARAÍ RIVER BASIN** (BRAZIL AND URUGUAY) - Establishment of formal coordination mechanisms between the Quaraí river Basin Committee (Grande do Sul River) and the federal state (Unión); Creation of the Cuareim river Basin Agency at a national level (Uruguay); Creation of a Basin Council to support the Uruguayan-Brazilian Commission for the development of the Cuareim/Quaraí River Basin by the end of the project. - Creation of binational irrigation boards for the integrated irrigation management in the basin. - Development of micro-hydraulic measures of water capture and storage in urban areas by the end of the project; - Flood and drought contingency programs by the end of the project - Preparation of a formal educational and training by the end of the project program on water management in the basin by the end of the project. - **PILOT PROJECT TO CONTROL CONTAMINATION AND EROSION IN THE PILCOMAYO RIVER BASIN** (ARGENTINA, BOLIVIA AND PARAGUAY) - The project called "Tasna Buen Retiro Tail Dam Environmental Control and Mitigation" (reducing contamination and legacy pollutant in the mining district of Tasna) fully implemented by the end of the project; - Soil conservation practices implemented in more than 44 farmer communities by the end of the project - Reforestation at specific sites in the Cotagaita basin by the end of the Project; - Reduction of the legacy pollutants in the mining district of Tasna Buen Retiro by 95% by the end the Project at this specific site;	Reports and minutes of meetings of Basin Committee Work plans and budget of the Basin Agency Minutes of the meetings of the binational irrigation boards Hydraulic works completed Contingency programs for floods and droughts Training courses, seminars held and reports on the use of the soil conservation practices. Ha of land on which soil conservation practices have been applied Measured contamination reduction at specific sites Measured soil loss reduction at specific	The governments of Grande do Sul River and the federal state, Unión , are willing to establish the Quaraí river Basin Committee, and allocate funds in their budget for its operation Civil society across the international border understand the need to coordinate efforts Bolivia's COMIBOL effective involvement and collaboration. Appropriation of the demonstration project by the inhabitants of the project area. The Municipality of Cotagaita has included in its Annual Operating Plan the implementation of natural resources management practices to reduce erosion and silting

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
	- Processes of soil erosion and river sedimentation and silting controlled with conservation practices, reforestation and biotechnologies by the end of the Project, in specific localities; - Increased number of people using conservation practices to counteract the effects of deforestation, erosion and water silting and contamination by the local social players by the end of the Project. - **BIODIVERSITY CONSERVATION PILOT IN THE PARANA BASIN** (ARGENTINA, BRAZIL AND PARAGUAY) - Completion of an ichthyofaunal biodiversity evaluation in critical habitats, including control measures of exotic species, such as the golden mussel by the end of the Project - Completion of a socio-economic study on recreational angling and commercial fishing, including recommendations for alternative fishing methods (aquaculture, changes in gear) and a proposal for legal harmonization by the end of the Project - Completion of an environmental management plan for the pilot area , agreed and implemented by the end of the Project	sites Hectares of reforested land in specific sites Community surveys Ichthyo fauna habitats database populated and available to the public Socio-economic study completed and published. Compendium of alternative fishing methods Management Plan completed and endorsed by area stakeholders	Effective involvement and collaboration of Yaciretá Binational Entity (YBE: Argentina – Paraguay) and Itaipú Internacional (Itaipú Binational Entity: Brazil – Paraguay) in the development of the demonstration project activities Political will and commitment by the social players to support the management plan. People and institutions have enough capacity to adjust to the change promoted by the Project

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
RESULT / SUB-COMPONENT II.3 Strategic Action Program (SAP) and Transboundary Diagnostic Analysis (TDA) completed and endorsed by the five countries, within the framework of the CIC.	- TDA and SAP completed and endorsed by the five countries by the end of the project. - Pilot projects completed and documented; ready to be up-scaled by the end of the project - Institutional framework for the SAP implementation in place by the end of the project - SAP financing plan completed by the end of the project	Strategic Action Program (SAP) and Transboundary Diagnostic Analysis (TDA) documents Letters of endorsement (for the SAP and TDA) from the five countries Letters of commitment for funding SAP components Reports and minutes of Workshops	The governments of Argentina, Bolivia, Brazil, Paraguay and Uruguay allocate funds from their own national budget to support the formulation of the TDA and SAP Stakeholders participate actively and responsibly in the development of the SAP The CIC governments of the five countries provide the political and technical support to the CIC and its executing body

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
ADAPTATION TO CLIMATE CHANGE RESULT / COMPONENT III Management of the effects of Climate Change and Variability for the Plata Basin sustainable development. The five countries advanced in the implementation of a joint and well-coordinated Hydroclimate forecast system, and the development and adoption of hydrological models.	Adaptation to climate variability and change: Hydroclimate forecasting system for the la Plata River Basin. Improvement of the technical and operational capacity of the five la Plata River Basin countries to predict the hydrological effect of the climate variability and change by means of: - Strengthening of the observation system by comparing hydro-meteorological and atmospheric measures taken in the base year against different moments in the assessment, including installation and operationalisation of equipment as follows: 40% at the end of the 2nd year, 80% in the 4th year and 100% at the end of the project. - Formulation of weather scenarios for the XXI century for the la Plata River Basin countries: number of countries that formulate weather scenarios, models and projected variables according to the results of the model inter-comparison program, model developments and/or adjustments; number of students and trained	Verification in situ of installed and operating equipment. Technical reports from the national responsible agencies adopting the Weather Scenarios prepared during the five-year project Training manuals for the use of Hydrological Models Documents including maps, qualitative data on water and hydro-meteorological information, inventories, technical reports and publications.	The relevant players of the different public and private agencies of the la Plata River Basin support the development of the Program activities. The governments of the five Basin countries support the development of the Program activities at an institutional and political level. The specialized institutions of the five Basin countries encourage and support the activities providing information and data, and technical support. Collaboration and active participation of

INTERVENTION	PERFORMANCE/ ACHIEVEMENT INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
	professionals at the end of the 1st, 3rd and 5th years of the project implementation - Formulation of hydrological models: at the end of the first year of the Program implementation, the baseline will be established and will include the current distributed hydrodynamic models and the sub-basins they cover; it will be measured at the end of the 2nd, 4th and 5th years. - Preparation and implementation of transboundary contingency plans - Implementation of Communication Plans related to the social and economic vulnerability under various climate change scenarios - Studies of current adaptation practices and strategies	Periodical customary reports of the national agencies of the different la Plata River Basin countries participating in the program. Maps of land-use, vegetation coverage and flood risk with different climate change scenarios Reports from hydro-power operators related to generation policies under climate change scenarios Hydro-climate Database accessible to the public through the Decision-support Information System of la Plata Basin Contingency plans completed and adopted by stakeholders in pilot areas Policy on social and economic vulnerability incorporates information from the project Reports on current adaptation practices and strategies, and recommendations for improvement	the social and educational institutions of the la Plata River Basin countries, especially NGOs and the most representative universities.

Activities	Assumption
COMPONENT I: STRENGTHENING BASIN-WIDE COOPERATION CAPACITY FOR INTEGRATED HYDRO-CLIMATE MANAGEMENT	
Project Purpose: *To support the formulation of the Strategic Action Program (SAP) of the La Plata Basin and its supporting Transboundary Diagnostic Analysis (TDA) creating the institutional and legal framework, and technical capacity for the implementation of the long-term Framework Program.* **01** In close consultation with UNEP, the OAS provides technical co-ordination and follow-up for the administration of funds, supervision of personal recruited under the project, and preparation of the activity reports submitted to UNEP, GEF and to the governments of the five countries of la Plata Basin. **02** The General Secretariat of the CIC, in its capacity of Directorate of the Framework Program, provides technical co-ordination for the preparation and follow-up of the work-plan, administration of funds for the implementation of the Framework Strategic Action Program, and supervises all technical activities. **03** The National Project Units (NPU) in each country execute activities in their respective national territories, coordinate activities in their countries, articulate the participation in the inter-institutional program, convene meetings and consultations with the Civil Society, and collect and deliver needed information. **04** Prepare the SAP and TDA document. **05** Prepare the financing plan for the implementation of the long-term SAP. **06** Negotiate and secure funding for the execution of the long-term SAP.	The five countries provide counterpart contributions in terms of finances and staff. CIC, through the Political and Technical Representatives of the five countries, provides political and technical support
Result/ Sub-Component I.1: *Legal and Institutional Framework Strengthened.* **1.** Institutional capacity building (for the integrated management of the Basin): i) horizontal cooperation programs among the participating countries; ii) technical and management capacity building; and iii) design of scholarships programmes for post graduate students to collaborate with the Project institutions. **2.** Harmonization of legal and institutional frameworks: i) identification of needs and gaps in the legal and institutional framework in each of the riparian countries ii) formulation of basin-wide framework for the legal and institutional harmonization. **3.** Coordination of project activities: provides the mechanism for the management of this multifaceted project. As agreed by the Basin countries, such a coordination and management function will be housed within the CIC, which will serve as the Project Headquarters.	Stakeholders are willing to participate and authorities are receptive to participatory findings. The legislative agencies of the la Plata Basin member countries collaborate and participate actively in the activities of the program related to the regulatory-legal framework.
Result/ sub-Component I.2: *Stakeholders actively involved in the preparation of the SAP and TDA, through their participation in the PP Fund, Public Participation Workshops, Training and Education activities, and the Communication and Information System.*	Participating institutions provide information and data to the Digital Map of the Basin and are willing to join the Institutional Mapping.

Activities	Assumption
1. Promotion of public participation in Basin management, education and communication considering gender equity and indigenous population: i) the operationalization of the Digital Map of the Basin, with interactive capability; ii) inclusion of opportunities for public participation in the elaboration of the TDA and SAP; iii) incorporation of experiences, lessons learnt and good practices for public participation and involvement in other GEF supported projects; and iv) production and dissemination of educational material on water resources and the hydrological cycle of the la Plata Basin, with a particular emphasis on climate variability and change and the need to adapt. 2. Public Participation Fund (PPF): create the PPF and provide funding to projects and initiatives of the civil society organizations (OSC), ensuring gender equity. Define and approve the Operating Rules of the Fund. Integrate knowledge, experiences and information into the Project's decision-support system.	Information, experiences, lessons learned and best practices from other GEF-IW projects are available in a common format for easy access and retrieval. Education institutions (private and governmental) and Communication Media are interested in the information, news and data produced by the Framework Program. Stakeholders, particularly NGO, Universities and Research Institutions, are interested in participating in the PPF.
Result/ Component I.3: *Effective and timely operation of the Monitoring and Evaluation Plan of the Project.* 1. Implement a Management Information System for the execution of the Project, taking into account GEF contribution, other donors' contributions and national counterpart contributions. 2. Define process indicators and parameter for measuring progress and achievement. 3. Define stress reduction and environmental status indicators and their respective baseline, and collect and maintain data for comparison and monitoring. 4. Prepare and make available quarterly progress and expenditure reports 5. Organize and present meetings of the Steering Committee 6. Organize and present meetings of the Inter-ministerial Committees in each of the five countries 7. Execute a Mid-Term Review and a Final Review	Governmental and other participating institutions provide information on current and programmed activities within the geographic and thematic areas of the Project. Governmental and other participating institutions account for their counterpart contributions and make it available to the Project International Technical Unit, the OAS, and UNEP. Baseline data is adequate for defining process indicators and monitoring and evaluating progress and achievement.

Activities	Assumption
COMPONENT II: STRATEGIC ACTION PROGRAMME **Result/ Component II.1.** *Integrated Water Resources Management*. 1) Water quality and contamination evaluation and monitoring: 1) strengthening existing monitoring systems, and implementing shared databases and operations plans; 2) capacity building and network optimization plans; 3) elaborating contamination source inventories, analytical protocols and assessment forms, discharge databases, sewage treatment rules and permitting systems, protocols, and control of contamination in shared rivers; 4) applying existing mathematical models in the la Plata Basin, and implementing and identifying data needs in critical areas for the formulation of future scenarios; 5) preparing a proposed normative framework for water quality assessments in shared rivers; and 6) capacity building programs with workshops, seminars and courses, together with professional exchanges among the different responsible organisations, joint field work and inter-calibration programs for participating laboratories. 2) Integrated Management of Groundwater.: 1) development of a methodology for the integrated management of surface and ground waters in the la Plata Basin (including elaboration of a geo-referenced database of the main aquifers and schematic maps, at best possible scale); 2) integration of regional experiences; 3) strengthening of legal and institutional systems for the protection and management of groundwater; 4) identification of implementation criteria and methodologies for experience transfer, and validation of the proposed methodologies; 5) execution of a priority project for the SAYTT, including the formulation of a specific transboundary diagnostic analysis; and 6) application of framework for the integrated management of the transboundary aquifers of the la Plata Basin in the selected aquifers. 3) Integrated Water Balance for the la Plata Basin (Evaluating water supply and demand): 1) development of a work methodology, with UNESCO-PHI support; 2) elaboration of the surface and ground water hydrological balance; 3) evaluation of resource supply and demand; 4) elaboration of an integrated water balance; and 5) dissemination of results. 4) Biodiversity Management: 1) implementation of a protected areas system, integrated with ecological corridors (including habitat identification and implementation of an ecological corridor with monitoring and control of transboundary contaminant flows to aquatic and terrestrial habitats); 2) sustainable management of fishery resources and aquaculture (including development of fishery codes, fishing information systems, and potential aquaculture areas agreed among the five countries, monitoring systems and invasive species control protocols); 3) common actions to protect and manage biodiversity according to the Biodiversity Convention (the proposed actions will take into account the extensive coastal wetland corridor included in the la Plata Basin which links the Pantanal with the Delta del Paraná on the la Plata River, including the Parana hydrological system, as one of the world's most diverse and biologically productive wetland systems); 4) conservation of the fluvial corridors and wetlands supported by key actions to promote public participation; and 5) linkages of the proposed action with other existing GEF biodiversity projects in the Basin 5) Control of Land Degradation:: i) elaboration of common, proposed actions in the la Plata Basin, complementing the National Action Programs against Desertification; ii) harmonization and dissemination of existing best practices at the Basin level; iii) elaboration of a common soils base map, showing critical areas, areas of land degradation, soils aptitudes, regional erosion susceptibility and water resources impacts; iv) identification of water resources; iv) identification and quantification of machinery, agrochemical and extreme event impacts on soil use, monitoring the erosive processes and quantification of their relationships with sedimentation in dams and infrastructure works; v) conduct of a demonstration project in the critical area of Selva Misionera Paranaense, including a diagnostic analysis of the current situation and proposed measures to mitigate erosion and rehabilitate lands,	Stakeholders participate responsibly and authorities are receptive to participatory decisions. Participants in the demonstration projects allocate financial resources for project execution. Participants in the demonstration projects undertake the activities assigned to them under the project.

Activities	Assumption
6) Control of Land Degradation: i) Formulation of SLM actions complementing the National Action Programs against Desertification; ii) Codification and dissemination of existing best practices at the Basin level; iii) elaboration of a basin-wide soil map, showing critical degraded areas, soil-suitability, erosion susceptibility, etc. iv) identification and quantification of the impact of farm machinery, use of agrochemical and extreme events on soils, erosion monitoring and quantification of the impact of sedimentation on dams and infrastructure works; v) conduct of a demonstration project in the critical area of Selva Misionera Paranaense, including a diagnostic analysis of the current situation and proposed measures to mitigate erosion and rehabilitate lands, with the corresponding monitoring systems; vi) conduct of educational and public participation activities; and vii) linkages with on-going work in la Plata Basin. Identification of Sustainable Development Opportunities: 1) Identification and formulation of projects on the use of clean technologies and greenhouse sinks and 2)identification and formulation of projects that promote ecotourism taking advantage of the cultural and historical heritage in the Lower Uruguay River. Treaties and Conventions signed will be analyzed and possibly modified to accommodate the new proposed ecotourism initiatives.	Stakeholders participate responsibly and authorities are receptive to participatory decisions. Participants in the demonstration projects allocate financial resources for project execution. Participants in the demonstration projects undertake the activities assigned to them under the project.

Activities	Assumption
Result/ Component II.2 : *Pilot projects completed and feasibility studies and cost analysis available for replication throughout the Basin..* 1) Pilot project to Control Contamination and Erosion in the Pilcomayo River (Bolivia/Argentina/Paraguay): i) a series of actions undertaken in different critical sub-basins e.g. the Tasna Buen Retiro and the Cuenca de Cotagaita in Bolivia improving water quality and erosion control, codifying the generated experience in mining pollution control, as well as erosion control; and ii) improvement of water quality and erosion knowledge and their transboundary manifestations on Argentina and Paraguay located downstream. 2) Pilot project for a Hydrological Alert System at the confluence of the Paraguay and Parana Rivers. (Argentina, Paraguay and Brazil). i) Design of an early warning system (monitoring and alert system) for risk management (prevention, contingency and rehabilitation) using simulation models to predict floods and droughts, as well as contamination impacts caused by spilling in the region of Resistencia-Corrientes (Argentina) and Pilar (Paraguay): ii) formulation of adaptation actions to address the hydrological effects of climate variability and change, and to prevent flood and drought-related disasters. Flood maps will be generated for different scenarios of climate change; iii) preparation of contingency plans, in partnership with Civil Defence authorities; iv) improvement of knowledge of transboundary critical issues related to hydrological extreme events, contingency planning, and water quality and V) improvement of safety guidelines in hydro regulation works (dams) and vi) creation and implementation of a Transboundary Water Alert Committee. 3) Pilot project to Resolve Water Use Conflicts in the Río Cuareim/Quarai Basin (Brazil and Uruguay) and generate experience for improving integrated water resources management capacities in this sub-basin, seeking to harmonize use at the national and transboundary levels. 4) Pilot project for the Biodiversity Conservation in the Parana River (Argentina, Brazil and Paraguay): to develop management capacity for aquatic resources management looking at ichthyofaunal biodiversity evaluation in critical habitats, including control measures of exotic species, such as the golden mussel, undertaking a socio-economic study on recreational angling and commercial fishing, including recommendations for alternative fishing methods (aquaculture, changes in gear) and a proposal for legal harmonization	Participants in demonstration projects undertake their assigned activities. Financial resources are allocated to execute the demonstration projects.

Activities	Assumption
Result/ Component II.3: *Strategic Action Program (SAP) and Transboundary Diagnostic Analysis (TDA) completed and endorsed by the five countries, within the framework of the CIC.* 1) Compile and analyse technical and scientific elements of the activities executed in Components I and incorporate the data and information of pilot demonstration projects executed in Component II. 2) Run specific studies on priority issues not included in previous components. 3) Formulate the SAP on the basis of the TDA. 4) Multi-stakeholder validation. 5) Formulation of a financing plan for the execution of the long-term SAP.	Stakeholders participate responsibly and authorities are receptive to participatory decisions. Participants in the demonstration projects allocate financial resources for project execution. Participants in the demonstration projects undertake the activities assigned to them under the project.

COMPONENT III: Adaptation to Climate Change **Result/ Component III:** *Adaptation to Climate variability and change: A hydro-climatic forecasting system for the la Plata Basin*. 1) Generation of new data sets for improving extreme precipitation modelling 2) Development of regional hydro-climate models 3) Inter comparison of regional models 4) Hydro-Climate scenarios development for the Plata Basin generating periodical updates of regional hydro-climate scenarios to facilitate planning and adaptation 5) Development of a comprehensive Plata basin forecasting system capitalizing on the existing riparian research centres 6) An assessment of the vulnerability of the communities including vulnerability maps 7) Training for local communities to act upon different level of alert received	The specialized institutions of the five Basin countries encourage and support the activities providing information and data, and technical support. Social and educational institutions of the la Plata River Basin countries, especially NGOs and the most representative universities, collaborate and actively participate in the execution of all activities. Stakeholders are willing to provide information and data. Participants of studies allocate the financial resources to execute the project.

ANNEX C: RESPONSE TO PROJECT REVIEWS

a) Convention Secretariat comments and IA/ExA response
b) STAP expert review and IA/ExA response
c) GEF Secretariat and other Agencies' comments and IA/ExA response

NOTE REGARDING PROJECT REVIEWS

Pursuant to suggestions set forth in the review comments below and in response to refined formats and instructions from the GEF Secretariat, the Executive Summary of this project was extensively revised during early 2007. The comments and responses offered refer to the previous version of the document; however, the substantive comments and responses summarized below have been incorporated into the current version of the Executive Summary and supporting documents in the appropriate places.

STAP EXPERT REVIEW

Framework Program for the Sustainable Management of the Water Resources of the la Plata Basin with respect to the Effects of Climate Variability and Change

STAP Reviewer: Dr. Edwin D. Ongley

The following documents were included in this review:

- Executive Summary
- Core Document dated March 06.
- Annexes 1 – 8
- Annex C: Public Participation
- Incremental cost analysis
- Logical Framework
- Causal Chain Analysis
- Performance Indicators

SUMMARY COMMENTS

Key Issues

Scientific and Technical Soundness:

The proponents have done an excellent job in preparing this proposal. They have a sound view of the situation, a good understanding of the benefits and risks, and are sensitive to the national and sub-basin heterogeneity that is inevitable in such a large undertaking. It is well known that a number of la Plata countries have not been able to deal effectively with institutional and legal issues within their own jurisdiction and may have difficulty in doing so under this GEF project. Nevertheless, there is abundant "will" to make this happen and it needs a major initiative such as this to catalyze change within a basin-wide

framework. While this project will promote change, it is unlikely to produce significant institutional and legal change over the life of Phase 1. Such change in most countries is measured in at least 5 years or more, depending on the nature and complexity of the change.

For the most part, the outputs of this Phase 1 are realistic and achievable and are technically sound. Component 1 (Legal and Institutional) could be strengthened by inclusion of key issues that appear to be missing from this text; detailed comments are provided below.

The role and scheduling of the TDA relative to the SAP are not adequately explained and, indeed, may not be necessary under the particular circumstances of this project. This should be clarified and the TDA eliminated if not essential, especially in view of the enormous amount that is already known on TDA components of this basin. Any additional work on TDA issues should be strictly focused on those aspects that are key elements of a successful basin-level management plan.

Global Benefits or Drawbacks: The global benefits are clear and I see no drawbacks to the proposal. In such a large undertaking, there is a danger in expecting the impossible; in this regard the authors are cautious, proposing a three phase implementation process.

Goals of GEF etc.: There is no doubt that, if successful, this project will demonstrate exactly what the GEF IW envelope was established to accomplish.

Regional Context: The regional context is abundantly clear and well described.

Replicability: On the one hand, there are many lessons on IWRM in large basin management that this project could adapt from other similar experiences. On the other hand, the project will provide well documented examples of regional cooperation and key technical, legal and institutional processes that will be of value in other situations world-wide. Many of the impediments that will be faced in this project are very similar to those of other shared basins elsewhere and will provide examples of how to overcome these barriers.

Sustainability: The project has been very well defined in terms of a phased implementation, with funding sources identified. It is very probable that sustainability will not be an issue due to the political and economic resurgence of this region and abundant political will on the part of the participating countries.

Secondary Issues

Linkage to Other Focal Areas: the linkages to climate change and biodiversity focal areas are well established, both technically and institutionally, and are important components within the proposal.

Linkage to Other Programmes, Action Plans etc at Regional/Sub-Regional Level: The proposal flows directly from a series of political and technical interactions amongst the five countries that have occurred over many years. In particular the proposal is directly linked to the objectives of the la Plata Agreement and builds upon the institutional arrangements and activities already in place as a consequence of that Agreement.

Beneficial or Damaging Environmental Effects: there are no damaging environmental effects. The benefits are major and self-evident.

Stakeholder Involvement: The development of the proposal has involved extensive stakeholder interaction and direct participation. This will be continued as an essential component of project implementation. Public participation is fully developed in the proposal.

Capacity Building: There is a major element of capacity building in the project. In the development of the project there has been clear direction provided by the stakeholders of the areas in which capacity development is required.

Innovation: The project is not innovative insofar as the principles of basin-level IWRM are well-known. More importantly, the project will demonstrate how these principles can be elaborated in practice, and implemented successfully.

OTHER COMMENTS:

The project text is well documented, the implementation structure is rational and easily defended, and the parties to all components of the project clearly identified. Budgets seem reasonable relative to the actions proposed. Counterpart and co-financing funds, both available and proposed, are clear and the risks defined. The document indicates a thorough analysis of the issues, and extensive interaction with the parties in developing the proposals.

The **causal chain analysis** is well developed, especially the segregation of causation for the various components of the project.

The **incremental cost analysis** is, as in most GEF projects, difficult to define relative to domestic and global costs and benefits. The analysis is, however, realistic and consistent with my experience in other successful GEF projects and adequately reflects the principles of incremental costs.

Recommendation:

The proponents should consider the comments below, especially for Component 1. Otherwise, the document is ready for submission to the GEF for consideration.

DETAILED COMMENTS

In the following discussion, only those components or issues that need attention are noted. Absence of comment indicates concurrence by the reviewer with the text of the proposal.

P iif Summary: A brief statement about the la Plata Treaty, and how this links to this project, would add to the Summary.

p.5 Sect. 1.3 last para: Statement is made that changes in hydrology in last 20 years is a "certainly" the result of climate change – what is the evidence for this statement. In most river systems of the world, changes in hydrology are tied closely to human activities such as deforestation and diversions. It is more likely that this is due to a combination of climate change and human impacts. However, if there is scientific evidence of this linkage to climate change, then the source of this view should be cited.

p.6 First para. Sect. 1.4: what is the meaning of "environmental disequilibrium" this is a non-specific term that could mean almost anything?

Component 1

p.15: The institutional and legal components could be better developed. Institutional weakness is a main contributing factor to poor water resources and environmental management and has been identified in the la Plata countries for more than 15 years (to my knowledge). Yet it seems that little has been done in some countries at the national level to rectify this situation. This project does not indicate any measure of institutional change other than more capacity building. The fact is, there is abundant capacity but it is poorly institutionalized in most of these countries. It is more of a management and political issue than a technical problem. Nevertheless, this is central to the success of the project. Specifically:

- Institutional analysis leading to institutional modernization would be usefully incorporated into the proposed institutional harmonization activity. The activity focuses mainly on capacity building. There appears to be no obligation on participating governments to consider institutional or legal change, or to modernize institutional management.
- To be successful, there must be a requirement for top-down implementation and not just bottom-up capacity building, to ensure that the project succeeds and the benefits are sustained. In other countries (e.g. in Asia) capacity building often has little benefit in that there is no top-down obligation or incentive to implement a "culture change" within institutions.
- What is the probability of success of this project in persuading national governments to correct this situation?
- In some countries, provinces/states have strong powers relative to the central government (e.g. Argentina, Brazil). What steps will be taken to incorporate

these entities into decision-making when their interests are involved, or their cooperation is essential?

- How does the project envisage a solution to resolving and coordinating sectoral interests represented by non-water agencies (but involving some aspect of the water cycle – e.g. Agricultural departments promoting irrigation) be accommodated within an IWRM planning framework? This is an institutional issue and needs to be included in Component 1.
- What kinds of accountabilities can be developed to ensure that the basin SAP is implemented (this is major problem in many countries).
- Do the powers and role of the CIC need to be re-examined in light of their larger IWRM role?

Legal harmonization is useful. While I fully agree with initially developing shared water quality standards and indices, the component does not appear to deal with at least three essential legal components for shared water management.

- The setting of transboundary water quality standards, and how these will be given enforceable legal status within national legislation and enforceable within the context of an international basin. What will be the routes for redress by one country against another for failure to comply with the agreed standard?
- Minimum flows that will be guaranteed by law (or within the la Plata Agreement or its successor instruments) within the various parts of the basin. This is based on technical analysis but will have major implications for the legal component.
- What measures will or can be taken to resolve water-related (including pollution) disputes between agencies and entities within countries, and between countries? Will these measures apply to disputes between administrative units or also to disputes involving individuals or corporations.

In other IWRM projects these have proven to be the key legal issues. Therefore, the project should at least state these as key legal objectives; if not, there is no possibility of effective integrated management of water quality or quantity in the la Plate system. While these are not likely to be resolved in this Phase 1, the outputs should include analysis of these issues with the objective of including them in the SAP as issues that will require resolution as part of the SAP process.

Outputs

Component 1 outputs should refer to the details of the DSS system that is further explore in Section 11.2 for hydrology and water quality. The current text, without this reference appears to be mainly a technical exercise in building an information system. However, the purpose and principal components of the proposed DSS system need to be identified so that this does not become an open-ended activity. It should be clear that Need drives the development of a DSS system, and not the reverse (which is often the case).

Component 2 – Climate Change

The title of this component should be changed to better reflect the range of issues to be addressed under component 2. In fact, only 2.1 is climate change.

This component is much better developed than Component 1. For the climate change component (2.1) My main concern is that there is no indication of the ability of the countries to actually do this work. These are complex issues requiring major resources to achieve the resolution that is anticipated. One wonders if or how much of this Component is, in fact, achievable. Annex 10 notes "abundant" expertise; however the difficulties in harmonizing these many players in delivering a systematic set of outputs will be substantial. An initial output of the SAP should be a realistic evaluation of what is possible, and which of the many proposed outputs can be achieved, and what the priorities should be. The text of this proposal should at least acknowledge the difficulty in coordinating and prioritizing the outputs of this component.

Component II.2 (IWRM, Water Quality etc.) : As noted above this is an uncomfortable fit in Component II and might be better to have been included in Component 1 as these topics much more closely link to the enabling conditions required for implementation of IWRM. Changing the title of Component 2 would rectify this. One possibility is to create a new component 3 so that climate change is self-contained in one component and all the other technical issues that are required for sustainable IWRM in another component.

The IWRM component could usefully contain provision for examining other IWRM programs at the basin level in order to learn from others' experience. This would include lessons regarding institutional and legal issues for IWRM at the basin scale. This is probably most cost-effectively done by bringing experienced persons into the la Plata rather than transporting many la Plata participants to various countries that have experience in IWRM.

II.2 Biodiversity -- This could be more closely linked to the management of water resources – perhaps through some consideration of environmental flows in the basin as a basis for ecological protection.

Component 3: Demonstration Projects
This is well designed and reflects a real set of problems and issues.

Component IV.1: TDA and SAP.

It is not clear how the **TDA** fits into this project. Normally, the TDA provides the foundation for actions leading to the SAP. The Summary identifies a Macro Transboundary Diagnostic Analysis, yet it is unclear in the text how it will be done, what the purpose of the TDA is, how it will further the project, and how it links to the SAP. Indeed, it is possible that, in this circumstance, a TDA is not needed in that the problems of the basin are well known and have been fully explored over many years by the

participating countries. It can be further argued that an IWRM project such as this, is implemented at a level at which the main issues are already known and need no further, separate, TDA. This reviewer would support such an approach.

Risks

The first paragraph under "Risks" is incomplete (some text missing at the end of the paragraph). Some additional risks common in such programs include:

- While all countries, politically, are in favour, what is the realistic risk of the upstream countries (e.g. Brazil) of pre-empting the decisions of the FSAP for national interests especially in cases of serious drought.
- Risk of strong provincial governments frustrating the larger objectives of their national government through self-interest?
- Risk of gap between national regulations (e.g. pollution control) and actual implementation at the local level. This is of particular concern in some countries and results in pollution control failure.

Annex 5 – title – should be "causal", not "casual" (also in TofC) !!!

RESPONSE TO STAP REVIEW

The positive reaction of the STAP reviewer to the proposed project is noted and acknowledged. Many of the issues raised by the reviewer in his detailed comments are expected to be outcomes of the project, including the actions of the five Basin countries in adopting and implementing the legislative refinements likely to be identified as an output of the SAP. Consequently, these issues cannot be addressed at this time, except to reinforce the fact that the Basin countries have indicated their willingness to manage the la Plata River system collectively and for mutual benefit. The prime indication of this commitment is the la Plata Basin Treaty, within which the technical and legislative mechanism of the Intergovernmental Coordinating Committee (CIC) has been established and tasked with this role. This is further supported by the financial commitments of the five Basin governments to the operation of the CIC and its technical arm.

Notwithstanding, to the extent that the issues raised by the STAP reviewer can be addressed prior to legislative action by the basin countries to adopt and implement the SAP, the project document has been modified to include:

- specific reference to institutional analysis to identify the relationships among and between stakeholders (which represents the application of an institutional mapping tool developed initially under the auspices of the GEF San Juan River Basin project),

- creation of national project units (NPUs) that will serve as inter-ministerial committees for the purposes of the project and serve as mechanisms to integrate stakeholder participation in the process of SAP formulation,

- clarification of the relationship between the Decision Support System (DSS) to be applied pursuant to Component I with the DSS development actions set forth under Component II, and of the relationship of the Transboundary Diagnostic Analysis (TDA) to the Strategic Action Program under Component IV, and

- mention of the risk that any agreement pursuant to the management of the la Plata basin as a whole may be suborned by individual countries, especially those in an upstream and downstream orientation.

The suggestion that the water resources and climate change elements of Component II be separated is noted, but no action has been taken as these elements were agreed and identified by the Basin countries as an appropriate means of integrating the project into their national institutions and legal frameworks.

GEF Sec Review Sheet and response to comments

GEF SECRETARIAT CONCEPT AGREEMENT REVIEW

Country/Region :	Regional (Argentina, Bolivia, Brazil, Paraguay, Uruguay)
Project Title :	Framework Program for the Sustainable Management of the Water Resources of the la Plata Basin with Respect to the Effects of Climate Variability and Change
GEFSEC Project ID :	2095
Operational Program :	9,SPA
Implementing Agenc(ies) :	UNEP
Anticipated project financing ($ million) :	PDF $ 0.73 GEF Project Allocation $ 17.00 Total Project Cost : 67.14
Scheduled Project Review Dt :	06/04/2003
Target Work Program Date :	May 2006
Program Manager :	Andrea Merla
IA Contact Person :	Olivier Deleuze

Summary

The general objective of the project is to strengthen the efforts of the governments of Argentina, Bolivia, Brasil, Paraguay and Uruguay to implement their shared vision for the environmentally and socially sustainable economic development of the la Plata Basin, specifically in the areas of the protection and integrated management of its water resources and adaptation to climatic change and variability. Co-ordinated and locally executed by the CIC, the project, which represents the first phase of a possibly multi-phase effort, will harmonise and prepare, in co-operation with the Basin countries, a programme of strategic actions for the sustainable management of the la Plata Basin.
The project will also represent a mechanism to coordinate and integrate the ongoing GEF supported efforts in portions of the absin (Bermejo, Pantanal, Plata Estuary, Guarani), enhancing replicability and sustainability of single succesful outcomes.

Expected Outputs

PIPELINE ENTRY

1. COUNTRY OWNERSHIP

Country Eligibility: All countries are eligible under para.9(b) of the GEF Instrument

Country Drivnness:

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
Countries contribute with substantial co-financing, and are providing through the CIC the necessary political and technical backing.		

Endorsement :

	Expected at Work Program inclusion:	*Expected at CEO endorsement:*
Yes		

2. PROGRAM AND POLICY CONFORMITY

Program Designation and Conformity

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
IW - The projects is fully consistent with OP9 criteria, and with Strategic Priority #2 CC -		

Project Design

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
This foundational project utilizes a blend of basin-wide TA activities and of pilot demonstration projects, which has proven effective in other GEF projects. Its design builds on the results		The project document will contain annexes with full developed design of the pilot projects (groundwater SAYTT, etc.)

being achieved through a number of GEF IW and LD projects nested within the Basin. For the first time, groundwater is being integrated into basin-wide water resources management in the region.

Sustainability (including financial sustainability)

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

Replicability:

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

Stakeholder Involvement:

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

Monitoring and Evaluation:

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

3. FINANCING

Financing Plan

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

Implementing Agency Fees

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

4. INSTITUTIONAL COORDINATION AND SUPPORT

Core Commitments and Linkages

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

Consultation, Coordination, Collaboration between IAs, and IAs and EAs, if appropriate

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

5. RESPONSE TO REVIEWS

Council

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

Convention Secretariat

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

GEF Secretariat

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

Other IAs and RDBs

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

STAP

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

Review by expert from STAP Roster

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

PDF B

6. **Terms of Reference** (relate to translating the pipeline entry criterion (met) to the WP inclusion criterion):

Conforming to Gef criteria

7. **Budget line items related to the TOR** (including schedule):

as above

GENERAL COMMENTS		
(for records purpose only, not pre-conditions)		
At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
The concept addresses one of the major freshwater basins worldwide. The riparian countries have agreed on engaging in an sustained effort to jointly manage the basin's water and environmental resources, with a view particularly on mitigation of the devastating transboundary effects of climatic fluctuations. This agreement is in part the result of GEF supported projects in sub-basins of the Plata (Bermejo, Upper Paraguay) or the underlying aquifers (Guarani), which have progressively built the expertise and confidence of the countries. The joint management of the Plata basin will have substantial global environmental benefits given the wealth in biodiversity, unique fresh-water ecosystems (Pantanal), and rich coastal-marine living resources (Rio de la Plata estuary). Based on a TDA-SAP process, the countries will in fact identify and agree upon the strategic	It is expected that a bilateral will be held with UNEP and CC Team representatives to agree on the adaptation component.	

actions needed to mitigate the effects of floods/drought cycles, reduce sediment and contaminants transport, and optimize water use while preserving biodiversity and ecosystems of global relevance (Pantanal, Plata Estuary). The concept, while fully in line with OP9 criteria and IW Strategic Priorities (2), lacks clarity on objectives/activities/outcomes, and presents a three phased approach, the second and third phases of which maybe premature at this time.

SUMMARY RECOMMENDATIONS BY PROGRAM MANAGER

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
The program manager would recommend CEO approval of pipeline entry, subject to review of a revised document. June 03 - A revised proposal was received and reviewed. All recommendations made during the bilateral have been satisfactorily addressed. The program manager recommends CEO approval of pipeline entry and PDF-B.	March 2006 - Submission for Work Program inclusion. A bilateral was held during which several minor revisions were discussed and agreed upon. The program manager would recommend WP inclusion upon received of revised proposal. April 2006 - A revised proposal was submitted and reviewed. All issues raised during the bilateral were addressed. The program manager would recommend CEO approval of Work Program inclusion.	The project document will contain annexes with full developed design of the pilot projects (groundwater SAYTT, etc.) A GEF website will be developed and maintained in accordance with IW-LEARN guidelines. The project will also earmark funds to finance country official's) participation at two GEF International Waters conferences, as well as for an exhibit that can be taken to different meetings to describe the project.

FURTHER PROCESSING

At pipeline entry:	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
A teleconference will be held ASAP to		

define in detail the needed revisions. UNEP organized a teleconference with GEFSEC and OAS on 6/3/03. Clarity in outcomes, revisions in rationale, and a more crisp text were suggested and agreed with the agencies--simply a presentational problem seems to exist

A bilateral was held on 6/4/03 to brief UNEP and GEFSEC management on the telecom and progress in producing more clarity focused on outcomes. A resubmission is intended as revisions are being undertaken by the project team.

Response to GEF Sec's review sheet

The Executive Summary, the Core Document and respective annexes were reviewed according to the Bilateral discussion held between the IA and GEF Sec. The revised version was subsequently cleared.

UNDP review and response

Framework Program for the Sustainable Management of the Water Resources of the la Plata Basin with respect to the Effects of Climate Variability and Change
UNDP Comments on Full Size Proposal

UNDP considers that the implementing and executing agencies of this project have valuable experience to share given the several GEF projects they have under development in the Plata Basin. The proposal states, with reference to GEF projects in the Basin that these "stand to benefit from the broader vision and more comprehensive actions proposed within this project on the Plata Basin". While this objective is supported, it is not clear that the project design will effectively deliver this desired result.

1. Although the project proposal defines it as a bi-focal area initiative (IW-CC), it has a MFA focus, as it has components that address Biodiversity, Land Degradation, International Waters and Climate Change objectives. It a $17 million initiative it is not specified what sums are requested from each of the two stated focal areas. However, consideration could be given to assigning allocations for the project to reflect this MFA approach.

2. Component 1 aims to "develop a harmonized legal framework for the Basin for the integrated water resources management, based upon plausible climate change scenarios". However, it is not clear that the project will build upon, coordinate and articulate the many other GEF projects in the region. This is particularly noteworthy in connection to Component 4, which calls for undertaking a TDA and SAP but does not take as a starting point the TDAs already carried out in other GEF projects. In fact, 4.1 states that "The preparation of the TDA and SAP integrates the results of all the Project activities, and is supported by public participation workshops, meetings of the Thematic Groups, the National Project Units, Inter-ministerial meetings, and other consultations and studies". No mention is made of existing TDAs, although the proposal does note that "other GEF-IW projects under execution in the Basin will be evaluated". The STAP reviewer questioned the need for a TDA exercise, a concern that is echoed here. For example, Component 1.2. calls for the "identification, systematization and dissemination of concepts, legislation, and institutional structures related to national, regional and international water-related environmental issues", activities which have already been undertaken in the framework of other GEF projects' TDA-SAP processes even if not at the basin scale.

3. Components 2 and 3 encompass a great diversity of projects, whose relation to the stated overall project objective is not always clear, and whose overall range is quite ambitious. Component 2 provides for two outcomes, the second of which has 7 outputs, each of which might constitute a project in a given focal area, and the last of which (Output 2.7) actually consists of two separate projects, while component 3 covers another four demonstration projects. It is not clear how the effective linkages

and coordination between many initiatives will be achieved, nor how these build upon existing achievements and ongoing work of GEF and non-GEF projects in the region. It is proposed to integrate “the results of all the Project activities” into the TDA and SAP, but as noted above, the added value of a basin-wide TDA and SAP exercise is not evident. The project proposal states that these will be captured in "replicable management measures to implement practices to promote sustainable resource utilization in the Basin" but the diversity and range of initiatives within the project make this a challenging proposition. The former has a GEF contribution of $11,439,500, the latter of $1,000,000.

4. The outputs detailed in Component 2, titled *Managing the effects of climate change and variability on sustainable development* effectively correspond to broad initiatives in the focal areas of BD, LD, CC, and IW. It consists of two outcomes, the first of which is the only one that addresses climate change issues, as none of the other outputs address aspects related to climate change. A second component is titled *Integrated Water Resource Management*, but in fact encompasses a range of activities reminiscent of an OP12 approach. With regards to Output 2.5 on *Biodiversity Management* and Output 2.6 on *Control of land degradation*", these seem to fall outside of the purview of an IW-CC project because of their very broad scope. The objective of Output 2.6 “is to compile available soils information integrated at a coherent scale"; activities include completion of the UNCCD NAPs. The BD component seeks to, *inter alia*, to “harmonize the national BD strategies of the Basin”, yet no mention is made of the existing Regional Biodiversity Strategy for the Mercosur countries (Argentina, Paraguay, Uruguay and Brazil) recently presented at the CBD CoP. The biodiversity component also seeks to develop an “environmental management plan of a demonstrative ecological corridor implemented following the regional strategy”. Again we are concerned over potential overlaps with existing projects and initiatives. Although the proposal indicates that coordination will be sought with GEF projects it is of concern that at this advanced stage of development none of these projects have been identified or detailed to ensure overlaps will not occur. For example, at least two of the existing UNDP biodiversity projects in the region could provide important contributions to this component: the *Esteros de Ibera* wetlands project in Argentina and the component of the Paraguay wildlands project that is consolidating a protected area in the Pantanal on the frontier with Brazil. Equally so the proposed “preparation of a monitoring system for controlling the introduction of exotic ichthyic species” will need to be well coordinated with national proposals under development in the biodiversity area, as well as with work undertaken in the GloBallast project for which Brazil was one of the pilot countries. With regards to the pilot BD project under component 3, again care should be taken to avoid overlap with biodiversity projects under implementation such as another component of the UNDP GEF Paraguay project and one under development in Paraguay through the World Bank.

5. In addition to the biodiversity linkages detailed above, the activities under Components 2 and 3 provide for ample opportunities to build upon the considerable work already undertaken in other areas. For example, “Water quality and

contamination evaluation and monitoring", should build upon the considerable work carried out by FREPLATA*, around which there are already ongoing discussions with the CIC Secretary. Similarly, during its TDA exercise, FREPLATA developed several hydrodynamic models, and there is ongoing dialogue with FFEM to support continued work in this field. With regards to BD, FREPLATA finalized a proposal for a bi-national BD strategy for its project area which is currently under consideration by relevant national authorities. Overall, FREPLATA maintains close contact with the CIC, with which technical cooperation agreements were defined in 2005. A jointly organized workshop on harmonization of environmental policy frameworks is planned for this year.

6. The stated aim to strengthen the CIC is welcome and encouraged. However, the mandate of the CIC vis-à-vis other bilateral organizations in the region needs to be considered, such as the commissions for Rio Uruguay, Rio de la Plata, etc, which have their own mandates and jurisdictions. The project proposal does not detail how this issue will be addressed. As noted above with regards to the project proposal, insofar as the institutional framework is concerned, it is important to build upon what already exists, provide for enhanced coordination and cooperation, and address critical gaps. It is not evident, however, how the proposed project aims to do this given the concerns expressed in point 2 above.

7. Participation of other GEF IAs in the SC in an ex-officio capacity as detailed in the Management Arrangements is welcome to ensure full coordination between ongoing GEF projects in the Basin.

* *Environmental Protection of the Rio de la Plata and its Maritime Front (FREPLATA)*

Response to Comments

Overall, it should be noted that the Plata documents (Executive Summary, Prodoc and respective annexes) have been amended as per the Bilateral discussions between UNEP and GEF Sec. Some of the concerns raised by UNDP and the World Bank have thus been addressed in the lasted version of the Brief.

The following attempts to respond to UNDP's comments one by one in the same sequence.

1. For funding reasons, the GEF placed the Plata project into a bi-focal area "pot". The funding from cc as presented in component II.1 is worth USD 5.448M. However, by definition of Integrated Water resources Management, such projects automatically touch upon water, biodiversity, land degradation, climate change impact,… issues.
2. Any existing TDAs and SAPs for that matter would inform this overall project with such documents retaining their applicability in specific subbasins. As mentioned in the background – rationale section of both the Executive Summary and Prodoc, the subbasin projects although successful in terms of dealing with specific concerns, do represent uncoordinated opportunities in terms of the broader Basin. The proposed project provides the linkages and context for those ongoing and previous activities developing the coordination framework. We also identified the elements from each of the other GEF-IW projects that interacted with the la Plata Basin initiative under the "other GEF projects" header. In addition, throughout the PDF-B implementation, there was ample opportunity for this project to interact with the project managers of the ongoing GEF projects in the basin. Such interaction is meant to continue during the FP. Likewise, while each individual GEF-IW project has examined the legal and institutional frameworks relating to their subject areas, these do not provide the comprehensive overview of the relative strengths and weaknesses of all five countries. There is still a need to conduct the analysis identified in this project document. Granted, the analyses (bi- or tri-national in scope) conducted to date will form a starting point for this project; however, further analysis is required if all five countries are to be incorporated into the same framework. Finally component 4 has been amended to clarify the above.
3. The activities indicated in Components 2 and 3 fill gaps left within the geographic extent of the la Plata Basin by existing GEF and other interventions. They are meant to complement, not duplicate, these interventions. The Pilot Demonstration interventions (US $ 1,000,000) are intended to be financed in large part through associated and co-financing avenues, while the priority projects intended to fill gaps in our current knowledge base (US $ 11,439,500; located primarily in areas outside the scope of existing GEF projects). The pilot demonstration interventions are intended to demonstrate cost and feasibility as enabling activities within the IW portfolio, rather than to address known problems in the manner intended by the priority projects, which focus on implementation of proven intervention

strategies. Proven approaches developed under the pilot demonstration project component will form the basis for replicable practices to be implemented during the operational phase of the project (which may or may not involve further GEF interventions; these implementation projects will be similar in financial nature as the priority projects to which limited GEF funding is allocated). In each case, the linkages between elements will be coordinated at the regional level by the CIC and at the national levels by the National Project Units (UPNs); the thematic teams may provide further interchange between component elements at the Basin level. Annex 8 discusses the rational for the selection of the priority and pilot demonstration projects.

4. The reviewer has correctly understood the framework of the proposed project. However, the linkages between water and biodiversity and land degradation are to be fully understood by adopting a watershed-based approach to water resources management. Any and all activities on the land surface ultimately impact the volume and quality of runoff that ultimately forms the la Plata River system. The project recognizes that there are existing GEF and other initiatives in each of these focal areas ongoing or previously completed in the Basin. Incorporation of the applicable findings and recommendations of these initiatives is explicitly noted. Again, the focus is on integrating the numerous national, bi-national, and tri-national initiatives that have been completed in the Basin under the umbrella of the entire hydrologic system spanning five countries. The CIC and National Project Units are tasked with identifying and liaising with these other more localised interventions and their task teams; where necessary, thematic groups could be formed to enhance this type of coordination in specific subject areas.
5. As noted above, these efforts are specifically identified and will be integrated into the larger framework of the la Plata Basin. This project would allow wider dissemination of the outputs of the FREPLATA project throughout the Basin.
6. The project will build upon the existing institutional framework and specifically includes activities that will complement and strengthen the roles played by the various bi- and tri-national entities that exist in the Basin. The role of the CIC would become one of ensuring coordination between these entities as well as linking their endeavours within the framework of the Basin. This coordination may best be accomplished through the national representation on each of the various commissions and multinational entities, and is generally encompassed within the roles of the national ministries of foreign affairs, as noted in the project document. It is these ministries that form the common links between all of the multinational agencies identified in the Basin. This interagency coordination will be best elaborated through the application of the institutional analysis tool that will include the interactions between not only governmental organizations but also the numerous nongovernmental organizations that exist within the Basin. From this analysis, that identifies how the various institutions within the Basin interact, it will be possible to develop a meaningful strategy to create or enhance the linkages that may or may not exist between governments, civil society, and economic stakeholders in the Basin.
7. Inclusion of all IAs in an ex officio capacity is a hallmark of UNEP GEF projects in the region. It is to be hoped that the IAs will make some level of funding or

other appropriate authorizations available to their country/regional staff to give meaningful effect to this inclusive strategy.

World Bank Review and Response

Thanks for allowing us to offer comments on this GEF Executive Summary and Project Document for the La Plata Basin Project. We note that the Guarani Aquifer project is listed as a parallel project with opportunity for coordination; we welcome this opportunity to work together in the region.

The private-public partnership with ITAIPU, including the revolving funds to be established through the use of revenues from water charges, is an exciting possibility, and we look forward to hearing about its successful implementation.
Similarly, the Public Participation Fund is innovative, and we look forward to hearing of its initial results.

Regarding a few points where this proposal could be a bit stronger, please find the following specific comments:

1. Financing for M&E: The M&E program at $256,000 seems underfunded relative to the number of indicators (in Annex E, Section 3) and number of institutional actors defined within the M&E responsibility assignment table in Annex E.
It would be prudent to have a more detailed cost breakdown to understand both what the $256,000 is supporting (i.e. working from the available budget to fund the task) as well as what the budgetary needs are to complete all of the M&E work (i.e. working from the current tasks to see what the total budget needed is).

2. Public Participation Plan: It is not clear why the Public Participation Plan necessitates a separate logframe. Why is this not incorporated at the component level into the overall project logframe? I also have looked at the M&E Plan for Public Participation as compared to the overall logframe, and the PP logframe should at least feed into the overall project logframe. I don't see this. I assume that they have been prepared in two separate parts of the project design, but they now should be integrated for one common logframe, for which the project can pull out and evaluate the PP component as part of the whole.

3. Replication Strategies: The Replicability section as written in the Executive Summary is very vague. There should be more specifically outlined strategies for replication of the pilot demonstration projects of Component 3, as well as the pilot activities defined in the Climate Change Component 2. With regards to the latter, there is made mention of "replicable management measures to implement practices" but this is not sufficiently elaborated for you to say that you have a replication strategy for these Components.

4. Managing the Effects of Climate Change on Economic Development: This component as designed seems a bit compartmentalized (within IWRM subcomponent, there are activities on water quality, GW, biodiversity, land degradation, etc.). There needs to be evidence of more cohesion across these subcomponents in terms of how the

project, or the institutions in place, will work across these elements of IWRM. Similarly, there needs to be more explanation for how the IWRM subcomponent will interface with the climate change adaptation subcomponent, which seems to be focusing on science-based knowledge generation.

Lastly, there isn't much explanation for how this component overall will add to and inform the other components of the project. Precisely because you are adding this climate change / adaptation aspect to an otherwise basin-level IW foundational project, there needs to be great clarity on how it will all work together.

Response

As mentioned above, it should be noted that the Plata documents (Executive Summary, Prodoc and respective annexes) have been amended as per the Bilateral discussions between UNEP and GEF Sec. Some of the concerns raised by the World Bank have thus been addressed in the lasted version of the Brief.

The following represents an attempt to respond one by one to the World Bank specific concerns.

1. Although World Bank's point is well taken, the funding level might seem low as it is anticipated that Young Professionals will be supporting the project operations in each of the National Technical Units as mentioned in the prodoc on page 34. Such assistance is coming in, as extra counterpart contribution. Nevertheless, during the appraisal phase, the project task team will endeavor to further develop the baseline and indicators as well as the matching detailed budget for further discussion and endorsement by the riparian countries. Further, it should be noted that as part of the component I, OAS is also contributing USD 225K of co-financing for supervision and monitoring activities (see table II on page 16 of the Executive Summary).
2. The PPP actually forms part of the main log-frame. However, a more detailed M&E plan was included as the PP component is essentially a plan and as such deserves an M&E component. The project log-frame and its M&E plan provide a broader approach integrating the PP plan, as a component, into the whole project. No one-to-one correspondence is observed, as to avoid repetitions.
3. The introduction in Annex 8 explains the selection process for the demonstration and priority projects. Use of demonstration projects on this scale highlights issues affecting the sustainable implementation of practices, and allows refinements or modifications to be made prior to large-scale applications. Indeed, although tested on a small scale, all of the issues addressed by the pilot demonstration projects are issues inherent in the whole basin or key subbasins, hence could be easily up scaled to those areas in the basin sharing similar conditions. Further, the replicability strategy per se will be an activity of the planning phase hence will form an integral part of the SAP.

   For funding reasons, the GEF placed the Plata project into a bi-focal area "pot". The funding from cc as presented in component II.1 is worth USD 5.448M. However, by definition of Integrated Water resources Management, such projects automatically touch upon water, biodiversity, land degradation, climate change impact,… issues. The linkages between water, biodiversity, land degradation and climate change are to be fully understood by adopting a watershed-based approach to water resources management. Any and all activities on the land surface ultimately impact the volume and quality of runoff that ultimately forms the la Plata River system. Further all components of the projects together with existing information *inter alia* emanating for the other GEF led projects in the basin will inform the formulation of a basin-wide

TDA and SAP including all sectors involved in Integrated Water Resources Management.

Latest Review Sheet from GEF Sec dated 06 April 2007 and response

Review Sheet

GEF

GEF SECRETARIAT PROJECT REVIEW

Country/Region :	Regional (Argentina, Bolivia, Brazil, Paraguay, Uruguay)
Project Title :	Sustainable Management of the Water Resources of the la Plata Basin with Respect to the Effects of Climate Variability and Change
GEFSEC Project ID :	2095
Operational Program :	9,SPA
Implementing Agenc(ies) :	UNEP
Anticipated project financing ($ million) :	PPG $ 0.73 GEF Project Allocation $ 12.00 Total Project Cost : 66.78
PIF Approval Date :	
Target Work Program Date :	June 2007
Program Manager :	Andrea Merla
IA Contact Person :	Isabelle Vanderbeck

Summary

Background - The proposed project responds to a decision taken by the Plata Treaty countries in 2001 during the IV Inter-American Water Management Dialogue. In that occasion the countries agreed on the need to develop, with the assistance of the GEF, a Framework Program for the la Plata Basin in order to: "i) coordinate projects of common interest for the la Plata Basin countries; ii) carry out projects in water resources management and select concrete prioritized actions; iii) highlight the importance of flood and drought phenomena in the Basin, among others; iv) define sustainable hydrology; and v) promote regional initiatives identified as priorities by two or more countries within the framework of the la Plata Treaty....". The present proposal builds upon the experience gained through several GEF projects addressing specific sub-basins an groundwater systems part of the larger Plata Basin, and is the result of extensive preparation work (PDF-A, PDF-B) carried out by the CIC (Intergovernmental Coordinating Committee for the Plata Basin) with the assistance of UNEP and the OAS.

The principal objectives of the proposed project are:
(i) To facilitate joint multi-country integrated management of the Basin's surface and groundwater resources taking into consideration the need to reach a sustainable balance among water uses, and to adapt and mitigate the impacts of climatic fluctuations and change. This will be achieved through the formulation and adoption by the countries of a Strategic Action Program, addressing the transboundary aspects of the joint integrated management of the Plata Basin, and including agreement on key institutional, legal, policy reforms and investments. The SAP will build upon a science based transboundary diagnostic analysis (TDA), and will be strengthened and informed by several demonstration sub-projects testing innovative approaches and including

climate change adaptation aspects.
(ii) To strengthen and harmonize the multi-country institutional and legal frameworks and technical capacity (enabling conditions) necessary for the long-term implementation of the SAP, taking into account the implementation plans and financing strategies agreed by the Basin countries. This will include, amongst others, the development of predictive and decision support tools for climate induced alterations, such as an Integrated Hydro-meteorological-climatic Forecasting System at the Basin level to generate meteorological, hydrological and climatic forecasts and scenarios to enhance the capacity within the Basin to anticipate floods, droughts, and extreme events (related to El Nino and La Nina periodicities), inform regional land use and economic development programs, and permit the Basin countries to anticipate and adapt to climate change and variability related impacts.

Summary Recommendation - The IW program manager, having reviewed the documentation provided, including the numerous relevant annexes, observes the following:
(i) The project conforms with OP9 criteria, fits GEF4 SO2, and is fully in line with GEF4 Strategic Program 3 (conflicting water uses).
(ii) The proposal adequately addresses previously raised issues of concern, in particular regarding the component to be funded by the climate change adaptation SPA, which, as agreed in bilateral discussions, is now reduced in scope, and focuses on the creation of capacity and of an enabling environment.
(iii) During preparation the project has leveraged a very high co-financing (1:4), including substantial cash contributions, and was very successful in engaging the private sector (Hydropower companies) which will actively participate to key and innovative components the project (testing of revolving funds using revenues from water charges) and provide substantial co-financing.
(iv) The projects will promote several innovative approaches; in particular the full integration of groundwater into basin-wide water resources management, which will promoted by the project for the first time in the region.
(v) Even in its preparation stage, the project has shown its impact in helping to defuse the recent tensions between Uruguay and Argentina on transboundary pollution in the basin. Once fully operational, the project will provide the forum and mechanisms for multi-country dialogue and water use conflict resolution in this highly sensitive transboundary water context.
(vi) The budget reflects recent guidance on management costs, travels and other items.

Based on the above, the program manager would recommend CEO approval of Work Program entry upon submission of a reveised proposal addressing the following:
(i) The management budget (at page 22 Exec. Summary) includes office facilities: these costs should be reduced, and /or covered through co-financing, and fully justified in the text. Justification for travels should also be provided.
(ii) SAYTT: Since co-financing from Italy and the EU is still highly uncertain, it would be advisable to scale down this important pilot to fit the GEF resources + counterpart funding and confirmed co-financing, which appear sufficient. If by the time of endorsement more resources will be available, the ProDoc will contain an expanded scope for this activity.
(iii) Proposal will ensure that a project website will be developed and maintained in accordance with IW-LEARN guidelines. The project will also earmark funds to finance country official's participation at two GEF International Waters conferences, as well as for an exhibit that can be taken to different meetings to describe the project.

Expected Outputs

The project is expected to produce:
(i) Harmonized legal and institutional frameworks for the basin management, and improved capacity
(ii) Reduction of risk associated with regional scale hydrologic events, and improved monitoring and forecasting capability, and integrated water resources management
(iii) Pilot demonstrations to test on the ground new approaches to integrated management
(iv) A Strategic Action Program agreed upon by all riparian countries addressing key transboundary concenrs, and climate change issues
(v) Enhanced awareness and stakeholder participation

1. COUNTRY OWNERSHIP

Country Eligibility: All countries are eligible under para.9(b) of the GEF Instrument

Country Drivnness:

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
Countries contribute with substantial co-financing, and are providing through the CIC the necessary political and technical backing.		

Endorsement :

	Expected at Work Program inclusion:	*Expected at CEO endorsement:*
Yes		

2. PROGRAM AND POLICY CONFORMITY

Program Designation and Conformity

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
IW - The projects is fully consistent with OP9 criteria, and with Strategic Priority #2		

Project Design

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
This foundational project utilizes a blend of basin-wide TA activities and of pilot demonstration projects, which has proven effective in other GEF projects. Its design builds on the results being achieved through a number of GEF IW and LD projects nested within the Basin. For the first time,	Clarity of project brief could be improved by including the objective of each component, outcomes, and indicators of achievement in summary form in the Exec Summary so reviewers would not have to scan the annexes and logframe.	The project document will contain annexes with full developed design of the pilot projects (groundwater SAYTT, etc.)

groundwater is being integrated into basin-wide water resources management in the region.	SPA adaptation component not really evident in the summary. It is included in the annexes, but this needs to be brought to the Exec Summary so reviewers can see that the vulnerability analysis is included in the TDA and the options for coping with adaptation are identieid in the SAP developoment process and the policy reforms in sectors to live with clanged climatic fluctuations are clearly in the SAP. The guidance document from the Nov 2005 GEF Council meeting should be used.	

Sustainability (including financial sustainability)

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
	sustainability included by strengthening the CIC---the transboundary institutional organization under the treaty.	

Replicability:

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
	demos for replicability should focus on the flood and drought management key transboundary concerns. The demos should have the baseline situation described by the end of the first year of the project and funding be allocated for this and the M & E work.	

Stakeholder Involvement:

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
	stakeholder involvement inlcuded in	

	component 5 and detailed in logframe on p 31 of the exec summary.	

Monitoring and Evaluation:

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
	GEF M & E indicators should be more prominent. There are good indicators in the logframe---they should be viewed as GEF IW indictaors so they may be rolled up during the annual project performance review.	

3. FINANCING

Financing Plan

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

Implementing Agency Fees

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

4. INSTITUTIONAL COORDINATION AND SUPPORT

Core Commitments and Linkages

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

Consultation, Coordination, Collaboration between IAs, and IAs and EAs, if appropriate

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

5. RESPONSE TO REVIEWS

Council

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

Convention Secretariat

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

GEF Secretariat

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

Other IAs and RDBs

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

STAP

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
	STAP review included and agency responded to the issues identified.	

Review by expert from STAP Roster

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*

GENERAL COMMENTS

(for records purpose only, not pre-conditions)

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
The concept addresses one of the major freshwater basins worldwide. The riparian countries have agreed on engaging in an sustained effort to jointly manage the basin's water and	It is expected that a bilateral will be held with UNEP and CC Team representatives to agree on the adaptation component.	

environmental resources, with a view particularly on mitigation of the devastating transboundary effects of climatic fluctuations. This agreement is in part the result of GEF supported projects in sub-basins of the Plata (Bermejo, Upper Paraguay) or the underlying aquifers (Guarani), which have progressively built the expertise and confidence of the countries. The joint management of the Plata basin will have substantial global environmental benefits given the wealth in biodiversity, unique fresh-water ecosystems (Pantanal), and rich coastal-marine living resources (Rio de la Plata estuary). Based on a TDA-SAP process, the countries will in fact identify and agree upon the strategic actions needed to mitigate the effects of floods/drought cycles, reduce sediment and contaminants transport, and optimize water use while preserving biodiversity and ecosystems of global relevance (Pantanal, Plata Estuary). The concept, while fully in line with OP9 criteria and IW Strategic Priorities (2), lacks clarity on objectives/activities/outcomes, and presents a three phased approach, the second and third phases of which maybe premature at this time.

SUMMARY RECOMMENDATIONS BY PROGRAM MANAGER

At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
The program manager would recommend CEO approval of pipeline entry, subject to review of a revised document. June 03 - A revised proposal was received and reviewed. All recommendations made during the bilateral have been satisfactorily addressed. The program manager recommends CEO approval of pipeline entry and PDF-B. November 2, 2006 – Submission for re-pipelining Having reviewed the concept and the re-pipelining annex, the program manager (AM) observes the following: (i) The project complies with OP9 criteria, and fits within GEF4 IW Strategic Objective 2 for an intitial enabling acitivity for this very large river basin: . To expand foundational capacity building to a limited number of new transboundary systems through integrated approaches - GEF-4 will support projects addressing the balancing of conflicting/competing water uses in surface or groundwater basins, as well as projects that support integrated natural resources management across focal areas; where	March 2006 - Submission for Work Program inclusion. A bilateral was held during which several minor revisions were discussed and agreed upon. The program manager would recommend WP inclusion upon receipt of revised proposal that addressed the IW issues and the SPA adaptation elements would need to be addressed in a bilateral as well. April 2006 - A revised proposal was submitted and reviewed. A few presentational issues in IW remain. A bilateral was held with UNEP on this proposal April 20, 2006. The SPA PM was invited, but did not participate, instead sending a note that the project was not in compliance with SPA criteria. At the bilateral, 2 recommendations were discussde: (1) UNEP work with the UNEP climate change/ SPA staff to ensure consistency with guidance provided to Council in Nov 2005 on SPA; and (2) revise the project to address presentational issues on objectives of components outcomes/indicators/baseline situation and integration of adaptation tasks with	

needed, these projects would also incorporate provisions for meeting water demands of ecosystems and developing resilience to fluctuating/changing climatic regimes.

(ii) Financing. The requested GEF allocation is of $17million ($12 from IW, $5 from SPA) so it is an integrated, multi-focal project (fluctuating climate –floods during El Nino years is key transboundary concern). The documentation provides detailed costing of each activity. Percentage distribution of costs per major activity clusters with respect to total project cost (GEF + co-financing) shows: 13% (25% of GEF allocation) for SAP development; 50% for activities related to CC adaptation (vulnerability assessments, monitoring and forecasting, adaptation options), integration of groundwater, biodiversity and land degradation into basin management (including demo projects); 14% for piloting of new approaches/solutions.

(iii) Total co-financing amounts to $54 million, out of which $48 million have been confirmed.

(iv) Management budget – A detailed costing has been provided. Total cost corresponds to 8% of the total GEF allocation.

the TDA/SAP process per the Nov 2005 guidance.

While the PM does not recommend WP inclusion at this time, the proposal is a critical one for adaptation and IW and should be revised under UNEP leadership and resubmitted when consistency with guidance is clearly demonstrated in the Exec Summary and Prodoc, not just in the annexes.

March 2007 - Submission for Work Program entry.
The IW program manager, having reviewed the documentation provided, including the numerous relevant annexes, observes the following:
(i) The project conforms with OP9 criteria, fits GEF4 SO2, and is fully in line with GEF4 Strategic Program 3 (conflicting water uses).
(ii) The proposal adequately addresses previously raised issues of concern, in particular regarding the component to be funded by the climate change adaptation SPA, which, as agreed in bilateral discussions, is now reduced in scope, and focuses on the creation of capacity and of an enabling environment.
(iii) During preparation the project has leveraged a very high co-financing (1:4), including substantial cash contributions, and was very successful in engaging the private sector

(v) Consultants – All consultants will be from the riparian countries, for a total budget corresponding to 19% of the total GEF allocation.

(vi) Timeframe – PDF-B works have been completed and project is ready for Work Program inclusion. Anticipated starting date of the full project: 2007 (end of project in 2012)

(vii) Impacts - Even in its preparation stage, the project showed its impact in helping to defuse the recent tensions between Uruguay and Argentina on transboundary pollution in the basin. Once fully operational, the project will provide the forum and mechanisms for multi-country dialogue and conflict resolution on highly sensitive transboundary water issues. The project is expected to establish the foundation for joint decisions on reducing soil loss in the upstream reaches of the basin, reduction of transboundary pollution, balancing water uses in the semi arid portion of the basin, mitigating the impacts of climatic fluctuations and increased frequency of floods.

(viii) Risks are identified in the huge surface of the basin, in the different water/land administrative regimes of the riparian countries, some of which are federal states, and in the timely

(Hydropower companies) which will actively participate to key and innovative components the project (testing of revolving funds using revenues from water charges) and provide substantial co-financing.
(iv) The projects will promote several innovative approaches; in particular the full integration of groundwater into basin-wide water resources management, which will promoted by the project for the first time in the region.
(v) Even in its preparation stage, the project has shown its impact in helping to defuse the recent tensions between Uruguay and Argentina on transboundary pollution in the basin. Once fully operational, the project will provide the forum and mechanisms for multi-country dialogue and water use conflict resolution in this highly sensitive transboundary water context.

Based on the above, the program manager would recommend CEO approval of Work Program entry upon submission of a reveised proposal addressing the following:
(i) The management budget (at page 22 Exec. Summary) includes office facilities: these costs should be reduced, and /or covered through co-financing, and fully justified in the text. Justification for travels should also be provided.

availability of co-financing. The argumentations and coping strategies seem convincing.

(ix) Innovation – The project contains a number of innovative aspects in its design, and specifically intends to support new and innovative approaches to IWRM. Worth of particular mention is the major effort that the project intends to develop in integrating surface and groundwater, and in addressing at a basin-wide level the issue of El Nino related extreme flood events that are affecting the downstream countries (Argentina). In this respect the project complements the similar effort proposed for the Amazon Basin, where the climate related issue is instead increased frequency of exceptional droughts.

The program manager also notes that the project fits with the comparative advantages of the implementing agency, UNEP, as it strengthens implementation of a regional environmental agreement, ensures integration of updated science, and does so in partnership with a strong regional executing institution (the OAS) with its national offices to provide support.

Based on the above, the program manager would recommend CEO

(ii) SAYTT: Since co-financing from Italy and the EU is still highly uncertain, it would be advisable to scale down this important pilot to fit the GEF resources + counterpart funding and confirmed co-financing, which appear sufficient. If by the time of endorsement more resources will be available, the ProDoc will contain an expanded scope for this activity.
(iii) Proposal will ensure that a project website will be developed and maintained in accordance with IW-LEARN guidelines. The project will also earmark funds to finance country official's participation at two GEF International Waters conferences, as well as for an exhibit that can be taken to different meetings to describe the project.

approval of re-pipelining.

FURTHER PROCESSING		
At PPG, if any	*Expected at Work Program inclusion:*	*Expected at CEO endorsement:*
A teleconference will be held ASAP to define in detail the needed revisions. UNEP organized a teleconference with GEFSEC and OAS on 6/3/03. Clarity in outcomes, revisions in rationale, and a more crisp text were suggested and agreed with the agencies--simply a presentational problem seems to exist A bilateral was held on 6/4/03 to brief UNEP and GEFSEC management on the telecom and progress in producing more clarity focused on outcomes. A resubmission is intended as revisions are being undertaken by the project team.		

Response

The project Task Team took note of GEF Sec positive review and amended the project document accordingly and as follows.

The Italian and associated EU co-financing has been removed from all budget tables and budget components adjusted accordingly. Discussions with the donors are on-going and it is hoped that by CEO endorsement such co-financing will have materialized.

It should be noted that the management cost did not actually include office supply but rather communication costs as highlighted in grey. Communication between the Project Coordination Unit (PCU) in Buenos Aires at the Plata Commission (CIC) with riparian countries involved in this huge basin is paramount for its success.
Likewise, travel from the PCU to the 5 riparian countries is also crucial for project success. Indeed coordinating project activities essentially from Buenos Aires is impossible considering the size of this mega basin (3.1 million Km2). Footnotes on page 22 are stressing the above.

It should be noted that a website was developed during the PDF-B and is hosted at the CIC. This site is in full harmony with the UNEP/GEF DELTAmerica network of network for LAC with standards and protocols compatible with IW:LEARN although such IW:LEARN standards postdate the ones of DELTA. Finally, USD 5,000 has been added to the budget in annex 9 for covering in part costs associated to the participation into the IW Biennial Conference of the GEF.

GEF PROJECT EXECUTIVE SUMMARY PREPARATION REFERENCE

1) **GEF FOCAL AREA STRATEGEY.** Select as appropriate, from the following strategic objectives in the context of the GEF 4 replenishment strategy:

	Biodiversity
BD-1	Catalyze sustainability of protected areas systems at national levels
BD-2	Mainstream biodiversity in production landscapes/seascapes and sectors
BD-3	Build capacity for the implementation of the Cartagena Protocol on Biosafety
BD-4	Generate, Disseminate and uptake of good practices for addressing current and emerging biodiversity issues
	Climate Change
CC-1	Promote energy-efficient buildings and appliances
CC-2	Promote industrial energy efficiency
CC-3	Promote rehabilitation of power plants
CC-4	Promote on-grid electricity from renewable sources
CC-5	Promote renewable energy for rural energy services
CC-6	Support deployment of new, low-GHG-emitting energy technologies
CC-7	Facilitate market transformation for sustainable mobility
CC-8	Support piloting an operational approach to adaptation
	International Waters
IW-1	Catalyze implementation of agreed reforms and on-the-ground stress reduction investments to address transboundary water concerns.
IW-2	Expand foundational capacity-building to a limited number of new transboundary systems through integrated approaches and foster replication through targeted learning for the international waters portfolio.
IW-3	Undertake innovative demonstrations addressing key program gaps with a focus on SIDS water supply/coastal protection and IWRM ISSD targets.
	Ozone Depletion
OZ-1	Address HCFCs, residual use of MeBr, and strengthen institutions and other non-investment activities
	Persistent Organic Pollutants
POP-1	Assist in the development of NIP program and disseminate information on best practices
POP-2	Strengthen capacity for NIP implementation
POP-3	Encourage partnering in investments for NIP implementation
POP-4	Promote partnering in demonstration of innovative technologies and practices for POPs reduction
	Sustainable Land Management
SLM-1	Foster system-wide change through the removal of policy, institutional, technical, capacity and financial barriers to SLM at the country level
SLM-2	Demonstration and up-scaling successful SLM practices for the control and prevention of desertification and deforestation

SLM-3	Generating and disseminating knowledge addressing current and emergent issues in SLM
SLM-4	Cross focal area synergies and integrated ecosystem approaches to sustainable land management
	Capacity Building
CB-1	Enabling Activities (climate change and biodiversity)
CB-2	Cross-cutting Capacity Building
	Integrated Approach to Ecosystem Management
EM-1	Integrated Approach to Ecosystem Management
	Small Grants Program
SGP-1	Small Grants Program

2) **GEF OPERATIONAL PROGRAM.** Select the operational program(s) as appropriate:

OP 1	Arid and Semi-arid Zones Ecosystems
OP 2	Coastal, Marine and Freshwater Ecosystems
OP 3	Forest Ecosystems
OP 4	Mountain Ecosystems
OP 5	Removal of Barriers to Energy Efficiency and Energy Conservation
OP 6	Promoting the Adoption of Renewable Energy by Removing Barriers and Reducing Implementation Costs
OP 7	Reducing the Long-term Costs of Low Greenhouse Gas-emitting Energy Technologies
OP 8	Waterbody-based Operational Program
OP 9	Integrated Land and Water Multiple Focal Area Program
OP 10	Contaminant-based Program
OP 11	Sustainable Transport
OP 12	Integrated Approach to Ecosystem Management
OP 13	Conservation and Sustainable Use of Biological Diversity Important to Agriculture
OP 14	Program for Reducing and Eliminating Releases of Persistent Organic Pollutants
OP 15	Sustainable Land Management
STRM	Short Term Response Measure
EA	Enabling Activity

3) **CONTRIBUTION TO KEY INDICATORS IDENTIFIED IN THE FOCAL AREA STRATEGIES.** Each project proposal should indicate its contribution to the key indicators of the focal area strategies in its respective focal area as follows:

Biodiversity:

The coverage targets and impact indicators for the Biodiversity Focal Area as set out in the Biodiversity Strategy Paper for GEF-4. All approved GEF-4 biodiversity projects are required to report project contributions to these targets.

In addition, for projects that are submitted under Strategic Priority One and/or Strategic Priority Two, project proponents are required to complete and submit "tracking tools". The tracking tools will record progress in achieving the coverage targets and impact indicators at the project level. Data that is collected by the tracking tools will also be aggregated for analysis of directional trends and patterns at a portfolio wide level.

The tracking tool formats, including guidance and instructions in completing the forms, can be found at:
http://gefweb.org/projects/Focal_Areas/bio/bio_tracking_tools.html

Climate Change: Please refer to indicators in the Climate Change Strategy for GEF-4.

- Tons of CO_2 emissions directly avoided
- Market(s) targeted for intervention/transformation

International Waters:
Please refer to the indicators in the International Waters Strategy for GEF-4.

- Number of transboundary water bodies with measurable results in implementing action programs
- Number of Strategic Partnerships funded to produce measurable pollution reduction.
- Number of new transboundary basins with agreed joint management programs adopted
- Number of SIDS with adopted water reforms and demonstration actions with results
- Number of LMEs shared by developing countries with action programs ready to implement towards WSSD.
- Number of countries with successful demonstrations of innovative measures

Persistent Organic Pollutants:

I.1 Number of countries submitting their initial NIP to the COP
I.2 Number of countries receiving support to update their NIP
II.1 Number of countries with strengthened regulatory framework
II.2 Number of countries with strengthened capacity for enforcement
II.3 Number of countries with increased awareness of POPs
III.1 POPs phased-out from use (per compound): tons and cost per ton
III.2 POPs phased out from production (per compound): tons and cost per ton
III.3 Tons of POPs destroyed (per compound) and mode of destruction: tons and cost per ton
III.4 Reduction in releases of by-products: g Toxic equivalents and cost per g TEQs
III.5 Avoided releases of by-products: g Toxic equivalents and cost per g TEQs
IV.1 Number of sets of practices or technologies demonstrated
IV.2 Number of countries where new practices or technologies are introduced

Ozone Depletion:

- ODP adjusted tons of HCFC phased-out
- ODP adjusted tons of MeBr phased out
- Number of countries with strengthened institutions for compliance and reporting

Land Degradation:
(Note: The LD FA TF is currently working on a global core set of indicators for SLM that will be applicable to the GEF system as well. Therefore, the indicators listed here, are of preliminary nature and will be revised based on the results of the indicator initiative.)

SO-1:

- List involved production sectors
- # of policies and planning frameworks in or across three main production sectors harmonized reflecting SLM principles
- # of legal and regulatory frameworks revised/developed promoting SLM (please specify)
- # of institutions (specify government, non-government) with improved/sustainable capacities for SLM
- # of private sector entities involved
- Hectares of land directly impacted by the country program partnerships and/or sector-wide approaches (specify ha for agriculture, grazing and/or forest land)
- # of direct beneficiaries and # of indirect beneficiaries

SO-2:

- # of innovative and best practices for sustainable land management in demonstration/upscaling areas applied
- # of institutions (specify government, non-government) with improved/sustainable capacities for SLM
- # of private sector entities involved
- Hectares of land directly impacted by demonstrations/upscaling (specify ha for agriculture, grazing and/or forest land)
- # of direct beneficiaries and # of indirect beneficiaries

SO-3

- # of innovative knowledge products that have filled # of knowledge gaps in the LD FA
- # of best practices and knowledge on SLM disseminated in # of countries/regions
- List addressed emerging issue in SLM (e.g. Targeted Research theme)

SO-4:

- List Focal Areas involved

- Hectares of land directly impacted by intervention (specify ha for agriculture, grazing land, forest land and/or protected areas or other land uses)
- Land use plan developed harmonizing # of land use types in the target area
- Specify global environmental benefits using individual FA indicators (if possible)
- # of direct beneficiaries and # of indirect beneficiaries

OTHER ESSENTIAL DOCUMENTS FOR SUBMISSION AS PART OF A PROJECT REVIEW:

1) Full Project document
2) Endorsement letter from the Operational Focal Point(s)