

## Acuerdos Bilaterales

Clasificación: 09-2006

Fecha de Ingreso: 14 de marzo de 2006

Nombre de Acuerdo: Agreement between UNEP/GEF/OAS for the Project entitled "UNEP's Implementation of Global Environment Facility (GEF) Project Development Facility Block A Grants ( PDF As)"

Partes: GS/OAS & United Nations Environment Programme

Referencia: UNEP

Fecha de Firma: 4 de Octubre de 2005

Fecha de Inicio:

Fecha de Terminación:

Lugar de Firma:

Unidad Encargada:

Persona Encargada:

Original:

Claves:

Cierre del proceso:



Organización de los Estados Americanos  
Organização dos Estados Americanos  
Organisation des États américains  
Organization of American States



Date: 11/8/2005  
Code: USDE-D

**To:** Mr. Dante Negro, Subsecretariat of Legal Affairs

**From:** Thomas Scott Vaughan, Director, Office for Sustainable Development and Environment

**Subject:** Original – Agreement between UNEP/GEF/OAS for the Project entitled “UNEP’s Implementation of Global Environment Facility (GEF) Project Development Facility Block A Grants (PDF As)”

SV

Attached for your information and files is the original of the above-mentioned Agreement.

cc: Div. II

**UNITED NATIONS ENVIRONMENT PROGRAMME  
GLOBAL ENVIRONMENT FACILITY  
SUB PROJECT DOCUMENT**

**SECTION 1 – SUB PROJECT IDENTIFICATION**

- 1.1 Sub-Programme Title:** International Waters – 10: Contaminant based
- 1.2 Project Title:** UNEP's Implementation of Global Environment Facility (GEF) Project Development Facility Block A Grants (PDF As)
- 1.3 Sub-Project Title:** A Regional Framework for the Development, Management and Sustainable Use of the Water Resources of the Rio Bravo Drainage Basin.
- 1.4 Project Number:** IMIS:GFL /2328-2780-4482  
PMS: GF/8000-02-03
- 1.5 Sub-project Number:** IMIS: GFL/ 2328-2732- 4874  
PMS: GF/1040 -02-76
- 1.6 Geographical Scope:** Regional: Latin America and the Caribbean
- 1.7 Implementation:** General Secretariat of the Organization of American States (GS/ OAS)  
1889 F Street, N. W.  
Washington, DC 20006, USA  
Tel: +1-202-4583556  
Fax: +1-202-4583560
- 1.8 Duration of the Project:** 6 months  
Commencing: October, 2005  
Completion. April 2006

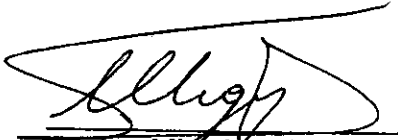
**1.9 Cost of the Project:**

[REDACTED]		
<b>Cost to the GEF Trust Fund:</b>	<b>25,000</b>	<b>38.4</b>
<b>Co-financing (in-kind):</b>		
Mexico	5,000	7.7
U.S.A	5,000	7.7
UNAM	10,000	15.4
Texas State University	10,000	15.4
GS/OAS	5,000	7.7
UNEP	5,000	7.7
<b>Sub-total:</b>	<b>40,000</b>	
[REDACTED]		

**1.10 Project Summary:**

This PDF- A is viewed as the necessary initial step for the joint development, elements and implementation of a long-term binational plan to meet future human and ecosystem water demands on both sides of the border in the Rio Bravo drainage basin in a sustainable manner, as well as for development of possible short-term, interim measures and actions to meet current and near-future water shortages.

For GS/OAS

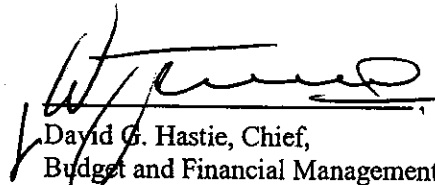


Mr. Jose Miguel Insulza  
Secretary General

Date: 4th October, 2005

Signatures

For UNEP



David G. Hastie, Chief,  
Budget and Financial Management  
Service, UNON.

Date: 4th October, 2005

**Box 1: Identifiers of PDF-A Document as approved by GEF Secretariat**



**GEF**

**PROJECT DEVELOPMENT FACILITY  
REQUEST FOR PDF BLOCK A FOR  
FULL-SIZED PROJECT**

AGENCY'S PROJECT ID: GF/1040-xxxx  
 GEFSEC PROJECT ID:  
 COUNTRY: México and the United States of America  
 COUNTRY ELIGIBILITY: Mexico is eligible for seeking GEF funds as Paragraph 9(b) of the instrument  
 PROJECT TITLE: A Regional Framework for the Development, Management and Sustainable Use of the Water Resources of the Rio Bravo Drainage Basin  
 GEF AGENCY: United Nations Environment Programme (UNEP)  
 OTHER EXECUTING AGENCY(IES): Organisation of American States (OAS)  
 DURATION:  
 GEF FOCAL AREA(S): International Waters  
 GEF OPERATIONAL PROGRAM(S): GEF Operational Programme OP # 10 Contaminant-Based Operational Program  
 GEF STRATEGIC PRIORITY(IES): IW SP3  
 ESTIMATED STARTING DATE: August 2005

FINANCING PLAN (US\$)	
<b>GEF PROJECT</b>	
PDF A	25,000
<b>Sub-Total GEF</b>	<b>25,000</b>
<b>CO-FINANCING</b>	
UNEP (In-kind)	5,000
OAS (in-kind)	5,000
Mexico (In-kind)	5,000
U.S.A (In-kind)	5,000
UNAM	10,000
Texas State University	10,000
<b>Sub-Total Co-financing:</b>	<b>40,000</b>
<b>Total PDF Financing:</b>	<b>65,000</b>

**RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT:**

Ricardo Sanchez Baker  
 El Director General Adjunto de Deuda Publica

Date: August 6<sup>th</sup> 2004

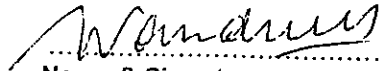
This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for PDF Block A approval.

.....  
**Name & Signature**

**IA/ExA Coordinator**

Ahmed Djoghlaif, Executive Director,  
UNEP GEF Co-ordination Office,  
Nairobi, Kenya

Date:



.....  
**Name & Signature**

**Project Contact Person**

Isabelle Vanderbeck, Task Manager

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SECTION 2 - BACKGROUND AND PROJECT CONTRIBUTION TO OVERALL SUB-PROGRAMME  
IMPLEMENTATION – PROJECT OBJECTIVE AND ACTIVITIES

PART I: PROJECT INFORMATION

1. PROJECT LINKAGE TO NATIONAL PRIORITIES, ACTION PLANS AND PROGRAMS  
(Note: The Rio Bravo is known by this name on the Mexican side of the border and as the Rio Grande on the U.S. side of the border. For the purposes of this proposal, the name Rio Bravo has been adopted for the sake of convenience)

I. International Programmes:

(A) Comisión de Cooperación Ecológica Fronteriza Border (Border Environment Cooperation Commission):

With the signing in November 1963 of the agreement between the Government of the United States of America and the Government of the United Mexican States concerning the Establishment of a border Environment Cooperation Commission and a North American Development Bank, Mexico and the United States agreed to assist communities on both sides of the border to coordinate and carry out environmental infrastructure projects along the common border. This agreement established the Comisión de Cooperación Ecológica Fronteriza Border (COCEF; Border Environment Cooperation Commission) and El Banco de Desarrollo de América del Norte (BDAN; North American Development Bank, see below). The COCEF mission is to identify, support, evaluate and certify affordable environmental infrastructure project to improve the quality of life for people living within the so-called border region, 100 kilometers on either side of the Mexico-U.S. border, now and in the future, through an open public process. It assists local communities and other sponsors to develop and implement environmental infrastructure projects, and to certify project for BDAN financing, with preference being giving to projects involving potable water supply, wastewater treatment, municipal solid waste management and other related projects.

(B) El Banco de Desarrollo de América del Norte (North American Development Bank):

Created under the same agreement establishing the COCEF (see above). BDAN is bilaterally funded international financial institution established and capitalized in equal parts by the two countries for the purpose of financing environmental infrastructure projects. Its primary mission is to function as a binational partner and catalyst in communities along the Mexico-U.S. border in order to enhance the affordability, financing, long-term development and effective operation infrastructure that promotes a clean, healthy environment for the citizens of the region. All BDAN-financed environmental projects must: (1) be certified by COCEF (see above); (2) be related to potable water supply, wastewater treatment or municipal solid waste management; and (3) be located within the Mexico-U.S. Border Region. The BDAN and COCEF work closely to develop integrated sustainable and fiscally responsible projects with broad community support in a framework of close cooperation and coordination between Mexico and the United States.

II. National, Regional and States Programmes:

México:

(A) Programa Nacional Hidráulico (National Hydrologic Program):

The National Hydrologic Program (PNH), is the regulatory agent for hydrologic resources in Mexico which adheres to the following principles:

- 1) Water should be managed for sustainability;
- 2) Water is a strategic resource and of national security;
- 3) The hydrologic watershed should be the basic unit to administer water resources;
- 4) Management of natural resources should be done in an integrated manner; and
- 5) Decisions made about resources should be done with the participation of local users.

The national objectives of the PHN are:

- 1) Encourage the efficient use of water, especially as it relates to agricultural irrigation;
- 2) Encourage the extension of coverage and quality of the services of potable water, sewage, and water treatment;

- 3) Accomplish the integrated and sustainable management of water in the watershed and in aquifers;
- 4) Promote the technical, administrative and financial development of the hydrologic sector;
- 5) Consolidate the participation of the users and society or organize the management of water and promote a culture of good use; and
- 6) Diminish the risks of and attend to the effects of floods and drought.

**(B) Programa Hidráulico Estatal de Chihuahua, Chih:**

The National Commission of Water and the government of the state of Chihuahua established the need to create the Grand Vision Hydrologic Program between 1996-2020 that would serve as a general guide to federal and state actions related to hydrologic resources. The problems of hydrologic development are addressed by three general goals: economic efficiency, social development and environmental sustainability. The overarching objective of the Plan is to establish the methods, programs and strategy to achieve balanced use to ensure the sustainability of hydrologic resources; contributing to basic population needs and economic development while ensuring the preservation of the quantity and quality. Some of the more specific objectives that include:

- 1) Identification of quantity, quality and spatial distribution of water available to the government entity, as well as use to ensure that the socioeconomic development of the entity take into account the possibilities and restrictions of the use of hydrologic resources;
- 2) Analyze actual use patterns of water and propose more efficient and rational uses of water to preserve future availability and quality;
- 3) Evaluate the financial and institutional situation of the hydrologic sector and provide proposals to auto-finance; and
- 4) Establish a strategy to improve participation of all forms of society, promote private investments; encourage the water market, and regulate the use of groundwater.

**United States:**

**(A) National Environmental Policy Act:**

Recognizing the profound impacts of human activities on the interrelation of all components of the natural environment, particularly population growth, high density, urbanization, industrial expansion, resource exploitation, and new and expanding technological advances, as well as the critical importance of restoring and maintaining environmental quality to the overall welfare and development of its citizens, the U.S. Congress established the National Environmental Policy Act (NEPA) in 1969 as the national policy for the environment. Its purpose is to

- 1) Declare a national policy encouraging productive and enjoyable harmony between humans and the environment;
- 2) Promote efforts to prevent or eliminate damage to the environment and biosphere and simulate the health and welfare of humans;
- 3) Enrich the understanding of ecological system and natural resources important to the nation; and
- 4) Establish a Council of Environmental Quality.

**(B) Clean Water Act:**

Growing public awareness and concern for controlling water pollution led to enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became known as the Clean Water Act (CWA), and is the cornerstone of surface water quality protection in the U.S. with the broad goal of restoring and maintaining the chemical, physical and biological integrity of the nation's waters, and particularly to provide "fishable, swimmable" waters to its citizens. The CWA established the basic structure for regulating pollutant discharges into U.S. waters, and gave the Environmental Protection Agency the authority to implement pollution control programs, and to set water quality standards for all surface water contaminants. Subsequently modified several times, the CWA uses a variety of regulatory and no-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff.



**(C) Texas State Water Plan:**

With passage of Senate Bill in 1997, the Legislature of the State of Texas directed the Texas Water Development Board to formulate and adopt comprehensive State Water Plan providing for the orderly development, management and conservation of water resources, including preparation for a response to drought conditions. Its goals are to:

- 1) Ensure sufficient water would be available at reasonable cost to ensure public health, safety, and welfare;
- 2) Further economic development; and
- 3) Protect the agricultural and natural resources of Texas. Of the 16 regional groups convened to develop the State Water Plan based on consideration of a range of hydrologic, environmental, economic, institutional and social factors across the state, four groups focused on specific sub-drainage basins of the Rio Bravo.

**(D) Interstate River Compacts:**

Several river compacts involving U.S. states in the Rio Bravo drainage basin have functions regarding water availability and use in some Rio Bravo tributaries. The Rio Grande Compact, ratified in 1939, prescribes the minimum Rio Bravo water flows that the state of Colorado must annually release into the state of New Mexico, as well as assigning the water quantities to which Texas and New Mexico are entitled. The Pecos River originating in New Mexico, flows through West Texas into the Rio Bravo upstream of Amistad Reservoir. The Pecos River Compact between Texas and New Mexico became effective in 1948 and allocates the unappropriated waters of this Rio Bravo tributary between the two states.

**2. PROJECT RATIONALE AND OBJECTIVES**

The Rio Bravo is central to the cultural heritage and history of the Mexico – USA border region, with its 467,000 km<sup>2</sup> drainage basin stretching across 8 States (Chihuahua, Coahuila, Nuevo Leon, Tamaulipas, Durango, Texas, New Mexico and Colorado) in 2 countries (Mexico and the United States). The Rio Bravo has a length of 3,033 km, making it the 5<sup>th</sup> largest river in North America and 24<sup>th</sup> largest in the world. Its headwaters are in the southeastern Colorado, with the historical average annual flow at the Colorado – New Mexico border being approximately 400 million m<sup>3</sup>. After flowing through the State of New Mexico, the river subsequently flows between Texas and Mexico, ultimately draining into the Gulf of Mexico. The 2,000 km stretch of the river between Ciudad Juarez, Chihuahua and El Paso, Texas constitutes the international boundary between Mexico and the United States. The international stretch also contains two reservoirs jointly operated by the two countries, Lake Amistad (3.9 billion m<sup>3</sup> volume) and Falcon Lake (3.1 billion m<sup>3</sup> volume).

The largest Mexican tributaries draining to the river are the Rio Conchos, Rio Salado and Rio San Juan. The principal Texas tributaries draining to the Rio Bravo are the Pecos and Devils Rivers, which flow into Amistad Reservoir. Most of the Rio Bravo drainage basin is comprised of rural, undeveloped land used principally for farming and ranching. The major Mexico – United States paired urban areas on the river are Ciudad Juarez – El Paso; Ciudad Acuna – Del Rio; Piedras Negras – Eagle Pass; Nuevo Laredo – Laredo; Reynosa – McAllen; and Matamoros – Brownsville. Substantial quantities of surface water are diverted from the Rio Bravo to meet municipal and agricultural demands in Mexico and Texas, much of it in the lower Rio Bravo Valley. The Valley is characterized by extensive irrigated agriculture of significant economic importance for the region.

Two major international reservoirs have been constructed on the main stem of the international portion of the Rio Bravo. Falcon Reservoir, constructed in 1953, and Amistad Reservoir, constructed in 1968, collectively provide controlled water storage for over 9.87 billion m<sup>3</sup> (8 million acre-feet) of water owned by the two countries. About 2.47 billion m<sup>3</sup> (2 million acre-feet) of this total are allocated for flood control, with 7.4 billion m<sup>3</sup> (6 million acre-feet) reserved for silt and conservation storage (water supply). Mexico owns about 41% of Falcon Reservoir's silt and conservation storage, with the United States owning the remaining portion. Mexico owns about 44% of the conservation storage capacity of Amistad Reservoir, with the United States owning the balance.

Mexico has constructed reservoirs on the tributary streams of the Rio Bravo within its jurisdiction for municipal, industrial and irrigation purposes. Much of the Mexican reservoir development has been in the Rio Conchos drainage basin in the State of Chihuahua, which flows into the Rio Bravo upstream of Amistad Reservoir. The combined conservation storage capacity of all the major Mexican tributary reservoirs is about 7.65 billion m<sup>3</sup> (6.2 million acre-feet), equivalent to about 2.5 times Mexico's total available conservation storage capacity in Amistad and Falcon reservoirs.

The lower portion of the Rio Bravo drainage basin lies within the Tamaulipan biotic province, a semiarid, subtropical biogeographical zone. The impacts of clearing vegetation on native brush lands, and of hydrologic modifications to the lower basin, have been dramatic over the decades. More than 95% of the lower basin's native brush land has been converted to agricultural or urban use since the 1920s, and there are very few undisturbed, natural communities remaining in the lower basin. Water development projects along this part of the Rio Bravo have seriously disrupted natural flow regimes, affected wetlands and their aquatic fauna, and degraded native riparian plant communities. The scarcity and significance of these riparian and in-stream ecosystems in the lower portion of the drainage basin are only now being recognized and appreciated. Further, habitat preservation plans identified this region as a target for the acquisition of sensitive, natural lands.

The hydrologic reality in this water-stressed region is that the waters of the Rio Bravo are not being used by Mexico and the United States in an equitable and sustainable manner. One reason is the occurrence of periodic droughts and floods, associated with extremes of climatic variability. Further, extensive agricultural activities have been undertaken by both countries in the lower Rio Bravo Valley. In addition, the basin contains a continually-increasing population along both sides of the Mexico - U.S. border, including that in the informal "colonias," along the border that depend on the Rio Bravo for drinking water. Aquatic ecosystems along this transboundary river system are being stressed in many places from its headwaters to its mouth at the Gulf of Mexico. In fact, the river has ceased flowing to the Gulf of Mexico several times in recent years because of diminished flows, resulting in the formation of a sand bar across its mouth. A fuller understanding of the actual quantity of readily-available water, both surface and underground, is essential to developing a long-term, mutually-satisfactory resolution to the current and possible future water shortages in the Rio Bravo drainage basin, and to sustaining the coastal zone and riverine ecosystems adversely affected by variable river flows.

The rainfall - evaporation patterns in the Rio Bravo drainage basin highlight its arid character. The annual precipitation in the portion of the Rio Bravo between Ciudad Juarez, Chihuahua/El Paso, Texas and Lake Amistad ranges between 20-50 cm, compared to its annual net evaporation ranging between 132-173 cm. The annual precipitation in the region between Lakes Amistad and Falcon is only slightly higher at approximately 41-81 cm, compared to its annual net evaporation between 102-142 cm. The situation is relatively best in the lower Rio Bravo Valley, with the annual precipitation ranging between 51-71 cm, compared to its annual net evaporation between 102-162 cm. This latter region, however, also experiences the greatest water abstractions for the irrigation-dependent citrus-fruit and truck-farm region in the lower Rio Bravo Valley that is of major economic importance on both sides of the border.

The natural heritage of the Rio Bravo basin is believed to be unmatched by any desert river system in the world, with its streams and springs being home to an amazing diversity of fish (pupfish, shiners, gambusia, minnows, darters, ciclids), many found nowhere else in the world. The river also has a mosaic of habitats along its length, including riparian forests, mudflats, salt marshes, and freshwater ciénegas. Millions of migratory birds stop to feed and rest along the river, and reptiles and amphibians thrive in its wetlands. The lower Rio Bravo Valley also is one of the top bird-watching destinations in the Americas, with over 465 bird species and a wide range of habitats.

Being virtually the only source of readily-available freshwater in this arid region of North America, the Rio Bravo is a vitally-important water source for both countries, particularly to meet drinking water and agricultural needs, and for other environmental and economic development needs on both sides of the border. The river is already over-allocated, however, with diversions for irrigation and municipal use claiming 98% of its average annual flow. The water abstractions in some areas are so large that little or no water is available. The river stretch below Ciudad Juarez, Chihuahua/El Paso, Texas, for example, is typically dry throughout the year because of its complete diversion for human uses, and does not resume significant flows until its confluence 400 km downstream with the Rio Conchos, near Ojinaga, Chihuahua/Presidio, Texas, earning this stretch the title of the "Forgotten River." The absence of flood flows has drastically changed the appearance of this stretch of the river and its

ability to transport water and sediments, causing the river channel to narrow, while the growth of exotic salt cedar (tamarisk) has proliferated and native riverine habitats have disappeared. The Rio Conchos from Mexico supplies the Rio Bravo with about 2/3 of its flow below the confluence of the two rivers.

The Mexico - Texas border is one of the most rapidly-growing regions in both countries, spurred in part by the 1,400 *maquiladora* (product assembly) plants and related economic activities associated with the North American Free Trade Agreement (NAFTA). There are 7 major Mexico - Texas city pairs with substantial populations along the international Rio Bravo border, including Ciudad Juarez - El Paso (1,771,388), Ciudad Acuna - Del Rio (143,295), Piedras Negras - Eagle Pass (150,848), Nuevo Laredo - Laredo (506,316), Reynosa - McAllen (520,219), Matamoros - Brownsville (532,457), with those cities in the lower Rio Bravo Valley almost entirely dependent on the river for their drinking water supply. The Rio Bravo drainage basin population was approximately 13 million inhabitants in 1990, with the portion of the population in the international stretch of the Rio Bravo doubling to more than 6 million people over the last 15 years. The population along the Mexican border increased 26% between 1980-1990, with the corresponding number on the Texas side being 27%. The annual growth rate in most of the basin's largest cities has topped 3% (the projected growth rate for Ciudad Juarez is 4.7%), and there is no doubt the currently-serious water shortages along the Rio Bravo will continue into the future unless significant efforts are undertaken for its sustainable use and management throughout its drainage basin. The important agricultural and populations centers that draw on the river are located downstream of Falcon Lake, with the population in the lower Rio Bravo Valley expected to reach 4 million by 2030. The total water use in 2002 on the Texas side of the border in the lower Rio Bravo Valley, for example, was approximately 2.22 billion m<sup>3</sup>, with the area facing a predicted population increase of 175% between 2000 and 2050.

The numerous informal settlements (*colonias*) along both sides of the border also affect the quantity and quality of water in the international stretch of the river. Within 160 km of the Mexico - Texas border, for example, an estimated 380,000 inhabitants live in 1,500 unincorporated subdivisions in Texas, lacking either proper potable water or wastewater services. Most use improperly-operated septic tanks, cesspools, outhouses, privies, or no treatment at all before discharging their wastewater directly into surface water or into the ground. These *colonias* are most concentrated in the lower Rio Bravo Valley, or the Ciudad Juarez, Chihuahua/El Paso, Texas area. Further, the Mexican border cities of Ciudad Juarez, Ojinaga, Acuna, Piedras Negras, Reynosa and Matamoros discharged an estimated 571,000 m<sup>3</sup> of wastewater into the Rio Bravo and Gulf of Mexico each day in the mid-1990s, with about 333,000 m<sup>3</sup> being untreated.

Regarding its water quality, an initial study of the international stretch of the Rio Bravo in 1992-1993 by federal and state authorities in both countries identified a disturbing trend of high toxics levels in water, sediment, and fish in several of the 19 main-stem monitoring sites and almost all the 26 tributary monitoring sites, with at least one toxic substance exceeding the screening criteria being found in water, sediment, or fish tissue at each of the sites. The 30 chemicals exceeding the screening levels included PCBs, cyanide, mercury, lead and residual chlorine. A second phase study in 1995 on 27 main-stem and 19 tributary monitoring sites confirmed the findings of the first study, indicating a "high potential for toxic contamination" in significant reaches of the Rio Bravo, including that downstream of Ciudad Juarez/El Paso, Nuevo Laredo/Laredo and Ojinaga/Presidio, as well as in Lake Amistad. Additional further studies confirmed that salinity, nutrients and fecal coliform bacteria remain concerns throughout the Rio Bravo drainage basin.

The water scarcity situation in the lower Rio Bravo valley is particularly critical, since this stretch of the river is the primary source of irrigation water for the previously-noted economically-important agricultural activities on both sides of the border. The persistent water scarcity has resulted in substantial economic damage to farmers and agricultural operations on both sides of the border in the lower Rio Bravo Valley. The water scarcity also has seriously impacted aquatic ecosystems along the length of the river and in the coastal zone. Because of prolonged drought, for example, the average annual measured water flows from the Rio Conchos to the Rio Bravo decreased steadily from over 66.5 m<sup>3</sup>/second to 2.3 m<sup>3</sup>/second between 1990-1995.

Water losses in transport through systems along the river also negatively impact the river's water availability. These include inefficient irrigation practices resulting from a lack of incentives for implementing conservation techniques on a broad scale. Some municipal systems also are highly inefficient due to leaks and out-dated conveyance systems. The city of Nuevo Laredo, for example, reported that of its total annual demand for water in 1996, 66% constituted leaks and water losses.

Further, most of the river's meanders and oxbows are gone and, for the most part, seasonal floods are a thing of the past.

The lower Rio Bravo Valley lies within the Tamaulipan biotic province, a semi-arid, sub-tropical biogeographical zone. The impacts of clearing vegetation on native brushlands, and of hydrologic modifications to the lower basin, to meet water needs on both sides of the border, have been dramatic over the decades. More than 95% of the lower basin's native brushland has been converted to agricultural or urban use, with very few undisturbed, natural riparian communities remaining in the lower basin. Water development projects along this part of the river have seriously disrupted natural flow regimes, affected wetlands and their aquatic fauna, and degraded native riparian plant communities. Much of this region's upland areas of this region are critical habitat for endangered species.

Exotic water plants, notably water hyacinth and hydrilla, have recently become major problems in the Rio Bravo. These plants draw water up into their roots and transpire it into the atmosphere. They also clog the free flow of the river. With some of the highest growth rates in the world, the plants can double their population in just 12 days. Water hyacinth, for example, can reach biomass densities as staggeringly high as 450,000 kg/ha in less than 2 weeks. Remote images from the Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) instrument on NASA's Terra satellite, for example, illustrated that hundreds of meters of river changed from being open water to being completely clogged in a matter of just a few weeks. In one stretch, a single blockage grew by over 2.4 km in just 6 weeks, equivalent to about 60 m of river per day. As one example of the impacts of this explosive growth, water managers previously had to release up to 30% more water from Falcon Lake to get sufficient water to push the thick weed mats down the lower Rio Bravo. Unfortunately, other feasible methods of attempting to treat this infestation (e.g., aquatic herbicides, weed harvesting, sterile grass carp, weevils) also have their physical and economic drawbacks.

The Rio Bravo estuary is biologically productive in its own right, being renowned for some characteristic estuarine species, including an indigenous species of hypersaline-tolerant oysters (*Crassostrea equestris*). The ecological health and integrity of this fragile estuary is extremely dependent on quantifiable freshwater inflow targets, including regular, minimum seasonal freshwater quantities from the Rio Bravo to maintain estuarine in-channel, open-water habitats, and periodic flood events to flush the system and cause overbanking to the riparian wetlands. The precarious state of the estuary at the mouth of the Rio Bravo because dramatically evident in February 2001, when the river mouth was blocked by a sandbar because of the low-flow conditions caused by the severe drought the lower river basin had been experiencing since 1995. The average annual flow rate at the mouth of the Rio Bravo in 1962 was nearly 3 million m<sup>3</sup>, compared to the 1990-1995 average of zero. The river mouth remained closed until temporarily dredged open by the International Boundary and Water Commission in September 2001. Subsequent tidal water changes again closed the mouth until September 2002, when higher tides and slightly-increased rainfall-derived inflows partially opened it. Analysis of the biological impacts of the rivermouth closing indicated the most important functions of the Rio Bravo freshwater inflows were to provide reduced salinity habitat for post-larval and juvenile marine species to complete their life cycles, as well as a means of ingress and egress to the estuarine habitat for some sensitive aquatic species.

Against this background, this proposed project is designed to further catalyze cooperation among the two countries, through furthering a process designed to identify common water resources policy issues, and to formulate a new cooperative framework within which to address shared, transboundary water resources issues. Within the framework of the Transboundary Diagnostic Analysis – Strategic Action Program (TDA-SAP) of the GEF, the ultimate goal of this project is to develop and apply an integrated, interdisciplinary management approach for sustainable water use within the Rio Bravo basin, including a dynamic geospatial picture, depicting the present and predicting hydrologic, environmental and other conditions of the river throughout its basin. This approach also will be useful in (1) determining critical water needs, flows and uses, (2) locating significant economic, environmental, and cultural resources, (3) evaluating the environmental and social impacts of predicted conditions and trends upon these resources, (4) developing a natural resource management plan, focusing on freshwater ecosystems and related environmental and social resources, and (5) monitoring the results of these efforts over the long term.

This PDF- A is viewed as the necessary initial step for the joint development, elements and implementation of a long-term binational plan to meet future human and ecosystem water demands on both sides of the border in the Rio Bravo drainage basin in a sustainable manner, as well as for

development of possible short-term, interim measures and actions to meet current and near-future water shortages.

**3. EXPECTED OUTCOMES**

Funding requested through this proposal will support the initiation of a process designed to develop agreement between the two riparian countries, as a prerequisite to preparation of a request for future GEF International Waters funding to support, in part, the creation of necessary agreement and institutional framework. The expected outcome of this activity is a document outlining the state of knowledge, gaps in knowledge, and priority transboundary issues affecting the Rio Bravo drainage basin. Following a process of extensive co-ordination and discussion, it is envisaged that a funding request for a GEF International Waters Project Development Facility, Block B (PDF-B), will be presented by Mexico on behalf of the two riparian countries of the Rio Bravo drainage basin.

**4. PLANNED ACTIVITIES TO ACHIEVE OUTCOMES**

The activities to be completed under this PDF-A funded project will be completed within a 6-month period after its initiation. UNAM will be the executor of the project, in close cooperation with Texas State University, and in cooperation with UNEP, OAS, IBWC and the relevant governmental and other stakeholder organizations of the two riparian countries.

The OAS will manage the funds on behalf of UNEP.

The project will consist of six principal activities, all of which are considered to be enabling activities:

**ACTIVITY 1.**

Building on existing information, preparation of a technical review paper identifying common, transboundary issues of concern within the Rio Bravo drainage basin, the current state of knowledge with respect to these issues and concerns, gaps in this knowledge, and proposed means of addressing the gaps in the knowledge base, as a means to developing the technical basis for developing a framework for the co-ordinated management of the water resources of the drainage basin for their sustainable use in meeting human and ecosystem needs.

**ACTIVITY 2.**

Conduct of an inter-governmental meeting to review the technical background paper and determine a frame of reference within which to conduct subsequent discussions with stakeholders within the Rio Bravo drainage basin. The initial consultative meeting will be formulated as a meeting of governmental and other relevant organizations with responsibility for, or which influence, the formulation of water resource management policy in each of the riparian countries. It is anticipated that at least two delegates from each country are anticipated to participate in these initial discussions, which will be aimed at formulating the "ground rules" within which the proposed management framework would be developed. This framework will be encapsulated in the proposals set forth within the technical review paper.

**ACTIVITY 3.**

Dissemination of the technical review paper, using both electronic and written fora as appropriate, including directed distribution to specific stakeholders identified by the countries, UNAM and Texas State University, for comment and input to ensure completeness and agreement.

**ACTIVITY 4.**

Refinement of the technical review paper, via electronic fora and written communication as appropriate.

**ACTIVITY 5.**

Conduct of a meeting hosted by UNAM and Texas State University to review the technical review paper. The meeting would take the form of a workshop-type regional technical meeting of stakeholders to review the technical review paper and to determine priority transboundary issues, concerns and actions. The proposed meeting will further refine the technical document and formulate a recommended program of action to develop a framework for the preparation of an integrated, transboundary framework for the management of the waters of the Rio Bravo drainage

basin in a co-ordinated and sustainable manner. This meeting will take the form of a workshop, wherein the basic findings of the technical review paper would form the primary basis for discussions. The workshop participations are expected to break into topic-specific work groups to further refine their respective issues and develop priority actions to address the agreed issues. These refined issue and approach statements will then be shared and further refined through a plenary discussion process, leading to the workshop output; namely, a documented and recommended work program leading to the development of a management framework for the sustainable use of the water resources of the Rio Bravo drainage basin. Participation in this workshop will be open to basin stakeholders, with invited representation nominated by the two riparian countries. The agreed work program will form the basis for the development of future GEF grant applications and other, related funding requests. It is envisaged that the GEF grant application will be a PDF-B application leading to the conduct of a full-sized GEF International Waters project, under OP 10 of the GEF Operational Program.

#### **ACTIVITY 6.**

Preparation of the GEF grant application agreed under Activity 5. This draft document will be refined in consultation of the two riparian countries, endorsed, and submitted by Mexico on behalf of the riparian countries. The proposed funding will be utilized to develop the framework necessary to manage the priority transboundary issues and concerns in a co-ordinated and sustainable manner, consistent with the mandate of the GEF.

#### **5. STAKEHOLDERS INVOLVED IN PROJECT**

The participation of key local stakeholders will be an important element in the preparation of the final document that will form the basis of discussion by decision-makers regarding the means and methods of proceeding with development of a shared management framework. Local and regional NGOs and regional initiatives and networks will be invited to be active participants in an electronic forum to refine the draft documents submitted for discussion at the proposed technical review meeting, in addition to relevant national authorities and institutions of the riparian countries.

In the preparation of the document to be drafted by consultants from within the Rio Bravo drainage basin, the project will support an electronic discussion based, in part, on the already established Inter-American Resources Network (IWRN). It is anticipated that a wide range of relevant international, national, regional, state and local institutions will participate in the process for technical co-operation in the development of a framework to prepare a strategic, integrated management program for the management and sustainable use of the waters of the Rio Bravo drainage basins. Anticipated international cooperation will include the International Boundary and Water Commission (IBWC), Comisión de Cooperación Ecológica Fronteriza Border (COCEF; Boundary Environment Cooperation Commission), and El Banco de Desarrollo de América del Norte (BDAN; North American Development Bank). Participating national institutions in Mexico will include La Comisión Nacional del Agua (CNA; National Commission on Water), Secretaría de Medio Ambiente y Recursos Naturales (SEMERNAT; Environmental and Natural Resources Secretariat), and Programa Nacional Hidráulico (PNH; National Hydrologic Program). Participation in the United States is anticipated from the Environmental Protection Agency (EPA), U.S. Fish & Wildlife Service, U.S. Department of Agriculture, and U.S. Army Corps of Engineers. Anticipated participation from state institutions in Mexico will include Programa Hidráulico Estatal de Chihuahua (Grand Vision Hydrologic Program), while those in Texas will likely include the Texas Department of Agriculture, Parks & Wildlife Department, Water Development Board and Commission on Environmental Quality. Relevant academic institutions will be lead by La Universidad Nacional Autónoma de México (UNAM), while those in Texas will include Texas State University, Texas A&M University, University of Texas at El Paso and Sul Ross State University. Other relevant organizations whose participation is anticipated in various degrees include the Rio Grande and Pecos River Compacts, the Texas Center for Policy Studies, the Pecos River Compact, the Texas Policy Institute and the National Heritage Institute, as well as major municipalities and irrigation authorities in the Rio Bravo drainage basin.

6. EXPECTED COSTS AND COMPLETION DATES OF THE PDF A

A) ESTIMATED BUDGET IN US \$

Participating Organizations	Tasks and activities to be undertaken		
	<u>Personnel</u> Consultants -- To prepare background paper(s), and refine technical review paper prior to workshop, and finalize future efforts in creation of integrated management framework	<u>Meetings</u> Intergovernmental Workshop -- To agree on technical review report and develop framework for preparing PDF-B proposal	<u>Travel</u> Two persons per each Mexican federal and state agency, and academic institutions from both countries @ US \$500/ea, incl. per diem and travel costs
GEF*	2,500	10,000	12,500
OAS		5,000	
UNEP		5,000 (in-kind)	
Mexico	5,000 (in-kind)		
U.S.A.		5,000 (in-kind)	
UNAM	5,000	5,000	
Texas State	5,000	5,000	
<b>Project total (PDF-A)</b>	<b>17,500</b>	<b>35,000</b>	<b>12,500</b>

\*Costs are for enabling activities and are considered to be wholly incremental in nature.

**Incremental Cost Analysis**

This project is wholly incremental in nature. Without the GEF intervention, it is not likely the riparian countries of the Rio Bravo drainage basin will undertake the co-ordinated management of this transboundary water system, focusing on its sustainable use for meeting human and ecosystem water needs now and in the future. Rather, the basin countries would continue to manage the system based entirely on unsustainable water allocation formulation and criteria. Further, the convening of an international workshop can be considered preparatory to the development of GEF International Water initiatives as a PDF-B Full-Sized Project, the precise nature of the consequent project to be determined as an output to this project development activity.

**B) PROJECT IMPLEMENTATION PLAN**

Activities	2005 Months*					
	1	2	3	4	5	6
Completion of project activities						
Activity 1 – Preparation of background document.	X					
Activity 2 – Conduct of inter-governmental meeting to determine the frame of reference for future co-operation		X				
Activity 3 – Dissemination and discussion of agreed technical background document using electronic for a and directed distribution			X			
Activity 4 – Refinement of the background document				X		
Activity 5 - Conduct of a workshop to further refine, agree, and adopt a recommended work program to formulate a management framework					X	
Activity 6 – Development, endorsement and submission to GEF of a PDF – B by Mexico on behalf of the riparian countries						X

\* After initiation of project

**C) MONITORING AND EVALUATION**

OAS will provide UNEP at the end of the project duration both administrative, technical, and financial reports. The administrative, technical, and financial reporting framework will be provided by the Implementing Agency through the Executing Agency and the local Executing agencies, using standard UNEP and OAS reporting protocols.

## **PART II: INFORMATION ON THE APPLICANT INSTITUTION**

### **Information on project proposers:**

#### **1. La Comisión Nacional del Agua (CNA) is:**

- a. A decentralized organization of the Secretaría de Medio Ambiente y Recursos Naturales (Environmental and Natural Resources Secretary), in accordance with the Interior Regulations and the Agreements, published in the Official Daily of the Federation on the 21 of January of 2003 and 17 of October of 1996, respectively, in accordance with the National Water Law, its Rules, and its Internal Rules of the Secretary.
- b. In accordance with the Organic Law of Federal Public Administration, the Environmental and Natural Resources Secretary, is a dependence of the Federal Executive Branch, charged with protecting, restoring and conserving ecosystems and natural resources and environmental services, with the goal of sustainable development; administer, control and regulate the use of hydrologic watersheds, lakes, and springs and national waters, and other federal zones, excluding those that are under another jurisdiction; implement and enforce specific conditions for discharging residual waters, when under federal jurisdiction, regulate and enforce the conservation of currents, lakes and lagoons under federal jurisdiction, protection of river basins; manage the hydrologic system of the Valley of Mexico.
- c. Its legal address is Avenida de los Insurgentes Sur # 2140, segundo piso, Col. Ermita, código postal 01070, delegación Álvaro Obregón de la Ciudad de México, Distrito Federal

#### **2. La Universidad Nacional Autónoma de México (UNAM) is:**

UNAM declares that in accordance with article 1° of its Organic Law, it is a public corporation, Decentralized Organization of the State, equipped with the authority to provide higher education to create professionals, researchers, university professors, and technicians that will contribute to society, manage and conduct research, principally related to national conditions and problems, and to promote the benefits of culture.

### **Information on proposed executing agency:**

#### **International Executing Agency:**

General Secretariat of the Organization of American States (OAS). The OAS is the premier forum for multilateral dialogue and decision-making in the Americas. It aims at strengthening democracy and at promoting peace, understanding and collaboration amongst its 34 member states. As a result of global and hemispheric summits, the OAS has demonstrated strong leadership in promoting participatory sustainable development, with the close collaboration of its member states and civil society representatives. The Unit for Sustainable Development and Environment (USDE) of the OAS, which will be responsible for the overall management of the project, is widely acknowledged as a successful environmental management agency at the hemispheric level. Its connection on the political level with various specialized bodies of the OAS, both at OAS headquarters, and in terms of technical co-operation in environmental management within the member states, facilitates its role as a bridge between the public and private sectors, civil society, and water resources professionals. Within the OAS, the USDE serves as a mechanism for the exchange of information and experiences in development and the environment. It has been involved for a number of years in waters resource management activities at the drainage basin level. The USDE executes several GEF-IW projects on behalf of the World Bank and UNEP, as well as numerous projects for U.S. AID and other agencies. Currently, there is an approximately US\$ 42 million portfolio of projects under execution, a US\$ 13 million portfolio in the final stage of negotiation, and as US\$ 8.6 million portfolio of projects in early stages of development and preparation. Given its historical involvement with the GEF-IW focal area within the Latin America and Caribbean region, and added experience in water resources projects on behalf of other agencies, the OAS is well placed to executive the day-to-day activities of the project.

#### **Local Executing Agency:**

La Universidad Nacional Autónoma de México (UNAM) will be the executor, in close cooperation with Texas State University.



**PART III: INFORMATION TO BE COMPLETED BY THE IMPLEMENTING AGENCY**

**Project Linkage to Implementing Agency program(s)**

Within Latin America and the Caribbean, UNEP is the GEF Implementing Agency for four International Waters projects, including those in the Sao Francisco and Upper Paraguay River basins in Brazil, the Bermejo River Basin in Bolivia and Argentina, and the San Juan River Basin in Costa Rica and Nicaragua. In addition, UNEP has a long-term partnership with the OAS in catalyzing holistic approaches to watershed management for sustainable water use in Latin America and the Caribbean. This project is consistent with the river basin planning and management process set forth in UNEP's EMINWA ("Environmental-Sound Management of Inland Waters") approach and related regional seas programmers, and is consistent with elements in the UNEP programme of Work, that facilitate and catalyze the collaborative assessment of key environmental issues related to sustainable development, so as to improve international policy formulation and planning, raise public awareness, and strength human and institutional capacities for environmental management. UNEP also is an active participant in the development and dissemination of the water resources best management practices identified and proven during GEF-IW projects through the complementary GEF-funded IW-LEARN project.

This project is consistent with the actions set forth in the Plan of Implementation adopted at the World Summit on Sustainable Development (WSSD), and with the FY 2003-FY 2006 priorities established by the GEF in support of this Plan of Implementation of stress reduction measures within the Rio Bravo Basin through regional and national policy/legal/institutional reforms through an agreed TDA-SAP process. Because of the significant hydrological impacts and consequent environmental impacts arising from the periodic droughts experienced in the Rio Bravo Basin, the proposed project has clear linkages with climate change, biological diversity and land degradation cross-cutting-areas, with the former being a significant concern articulated in the Plan of Implementation (PoI) adopted by the World Summit on Sustainable Development (WSSD).

## SECTION 3 - WORKPLAN AND TIMETABLE, BUDGET, FOLLOW-UP

### 3.1 Workplan and Timetable:

For the overall workplan and timetable, refer to section 2. At the inaugural steering group the project, GS/OAS will submit for approval an overall detailed work programme for the duration of the PDF – A.

### 3.2 Budget:

A detailed budget in UNEP format is presented in Annex 5. This budget is based upon the GEF approved budget provided in GEF format in the PDF-A

### 3.3 Follow-up:

The PDF-B formulated under the present PDF –A will be submitted to the GEF for approval upon approval by UNEP, the preparation to the planning phase (TDA-SAP) should then start thereby allowing the riparian countries to advance further in the strengthening of environmentally friendly management and development of the Rio Bravo Drainage Basin.

## SECTION 4 - INSTITUTIONAL FRAMEWORK AND EVALUATION

### 4.1 Institutional Framework

GS/OAS will be responsible for the coordination of the implementation of the project in accordance with the objectives and activities outlined in Section 2 of this document. 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 Co-ordination 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.

All correspondence regarding **substantive and technical matters** should be addressed to:

#### At GS/OAS:

#### **Mr. Thomas Scott Vaughan**

Director - Office of Sustainable Development and Environment  
1889 F Street, NW, Room 340

Washington, D.C. 20006 United States of America

Tel: + 1-202-458-3779

FAX: + 1-202-458-3560

Email: [svaughan@aos.org](mailto:svaughan@aos.org)

With copy to:

#### **Mr. Jorge Rucks**

Chief, Division II

Office of Sustainable Development and Environment & Organization of American States

Buenos Aires Office

Tel: +54-11-4803-7606/8

Email: [oea@oea.com.ar](mailto:oea@oea.com.ar)

And a copy to:

#### **Mr. Enrique Bello**

Programme Manager - Office of Sustainable Development and Environment

1889 F Street, NW, Room 340

Washington, D.C. 20006 United States of America

Tel: + 1-202-458-3779

FAX: + 1-202-458-3560

Email: [ebello@oas.org](mailto:ebello@oas.org)

**At UNEP**

**Mr. Ahmed Djoghlaif**

Director,  
UNEP/DGEF Coordination  
P. O. Box 30552  
Nairobi - Kenya  
Fax: + 254-20-624041  
Phone: +254-20-624166  
Email: [Ahmed.Djoghlaif@unep.org](mailto:Ahmed.Djoghlaif@unep.org)

With a copy to:

**Ms. Isabelle Vanderbeck**

Task Manager  
1889 F Street, N.W.  
Washington, D.C. 20006 United States of America  
Tel: + 1-202-458-3556  
FAX: + 1-202-458-3560  
Email: [isabelle.vanderbeck@unep.org](mailto:isabelle.vanderbeck@unep.org)

All correspondence regarding **administrative and financial matters** should be addressed to:

**At UNEP**

**Mr. David Hastie**

Chief, Budget and Financial Management Service (BFMS)  
UNON  
P.O. Box 30552  
Nairobi, Kenya  
Tel: +254-20-623637  
Fax: +254-20-623755  
Email: [David.Hastie@unep.org](mailto:David.Hastie@unep.org)

With a copy to:

**Sandeep Bhambra**

Fund Management Officer,  
UNEP /DGEF Co-ordination,  
P O Box 30552  
Nairobi, Kenya  
Tel: +254-20-623347  
Fax: +254-20-623162  
Email: [Sandeep.Bhambra@unep.org](mailto:Sandeep.Bhambra@unep.org)

**At GS/OAS:**

**Mr. Thomas Scott Vaughan**

Director - Office of Sustainable Development and Environment

With copy to

**Ms. Beatriz Santos**

Administrative Officer - Office of Sustainable Development and Environment  
1889 F Street, N.W. Room 340  
Washington, D.C. 20006 - United States of America  
Tel: + 1-202-458-3595  
FAX: + 1-202-458-3560  
Email: [svaughan@oas.org](mailto:svaughan@oas.org)  
Email: [BSantos@oas.org](mailto:BSantos@oas.org)

## 4.2 Eligibility

The countries are eligible for GEF funding under the rules and requirements specified in the *Instrument for the Restructured Global Environment Facility*. Given that the project has potential for replication of lessons learned at a global level, country and regional ownership will be ensured from the onset of implementation of the PDF-A by fully involving key national and regional developing country agencies and governments in the implementation process. In addition, activities will include the development of an information dissemination and public awareness raising strategy that will help ensure that results from the project are integrated into national and regional planning processes.

## SECTION 5: MONITORING AND REPORTING

### 5.1 Management Reports

#### 5.1.1 Terminal Report

Within 60 days of the completion of the project, GS/OAS will submit to UNEP/DGEF Coordination a Terminal Report in both electronic and paper copies detailing the activities taken under the project, lessons learned and any recommendations to improve the efficiency of similar activities in the future, using the format provided in Annex 6.

#### 5.1.2 Substantive Reports

At the appropriate time, GS/OAS will submit to UNEP/DGEF three copies in draft of any substantive project report(s) and, at the same time, inform UNEP/DGEF of its plans for publication of that text. Within 30 days of receipt, UNEP/DGEF will give GS/OAS substantive clearance of the manuscript, indicating any suggestions for change and such wording (recognition, disclaimer, etc.) as it would wish to see figure in the preliminary pages or in the introductory texts.

It will equally consider the publishing proposal of GS/OAS and will make comments thereon as advisable.

It may request GS/OAS to consider a joint imprint basis. Should GS/OAS be solely responsible for publishing arrangements, UNEP/DGEF will nevertheless receive 10 free copies of the published work in each of the agreed languages, for its own purposes.

### 5.2 Financial Reports

Within 30 days of the completion of the sub-project, GS/OAS will submit to UNEP/DGEF a Final Statement of Accounts and Expenditures duly signed by authorized official of GS/OAS using the format provided in Annex 7.

GS/OAS shall retain, for a period of three years, all supporting documents relating to financial transactions under the sub-project. If requested, GS/OAS shall facilitate an audit by the United Nations Board of Auditors and/or the Audit Service of the accounts of the project.

### 5.3 Terms and Conditions

#### 5.3.1 Responsibility for Cost Overruns

Any cost overruns (expenditures in excess of the amount in each budget sub-line) shall be met by the organization responsible for authorizing the expenditure, unless written agreement has been received in advance from UNEP. In cases where UNEP has indicated its agreement to a cost overrun in a budget sub-line to another, or to increase the total cost to UNEP, a revision to the project document amending the budget will be issued by UNEP.

#### 5.3.2 Cash Advance Requirements

Initial cash advance of US\$ 40,000 will be made upon signature of the project document by both parties. Final disbursement to be made subject to the presentation of:

- Final financial report showing expenditures incurred under each project activity.
- Submission of Terminal Report
- Satisfactory MSP brief

#### 5.3.3 Claims by Third Parties against UNEP

GS/OAS shall indemnify, hold and save harmless, and defend at its own expense, UNEP, its officials and persons performing services for UNEP, from and against all suits, claims, demands and liability of any nature and kind, including cost and expenses, arising out of the acts or omissions of GS/OAS, or its employees or persons hired for the management of the present Agreement and Project or other project partners, except where such claims or liabilities arise from the negligence or willful misconduct of the staff of UNEP.

#### **5.3.4 Amendments**

The Parties to this project document shall approve any modification or change to this project document in writing.

#### **5.3.5 Terrorism Finance Provisions**

The United Nations Security Council Resolution 1373 of 28 September 2001 on the fight against terrorism shall be adhered to by the Executing Agency, failure to which shall, without prejudice to other legal actions, lead to the immediate cancellation of the project.

5.3.6 Notwithstanding the provisions in 5.3.5, it is understood that the Executing Agency in this project is a public international organization.

#### **5.3.7 Arbitration**

The Parties shall first seek to resolve through conversations with each other any disputes between them over the interpretation and implementation of this Agreement and the Project. If those conversations prove unsuccessful, then either Party may initiate arbitration which shall be binding and conducted in accordance with the UNICITRAL Arbitration Rules or such other procedures as they may agree.

#### **5.3.8 Termination**

The Parties may terminate this Agreement by mutual consent. Either Party may terminate this Agreement unilaterally with thirty days' advanced written notice to the other. In case of such termination, the contributions of the Parties required hereunder shall be available to pay the cost of any irrevocable obligations made by GS/OAS to third parties in good faith pursuant to this Agreement, as well as the reasonable cost of terminating the Project.

#### **5.3.9 Privileges and Immunities**

Nothing in or relating to the present Agreement shall be deemed a waiver, express or implied of any privileges or immunities of the OAS General Secretariat, United Nations and UNEP.

## **PART IV: ANNEXES**

- Annex 1. Endorsement letter (Original and English translation)
- Annex 2. Acronyms used
- Annex 3. Mini Log frame matrix
- Annex 4. Comments and Responses from GEF SEC, UNDP and World Bank
- Annex 5. Budget in UNEP Format
- Annex 6. Format for Terminal Report
- Annex 7. Format for Expenditure Statement

## Annex 1. Endorsement Letter

R60-E-2004 10:54 DE:

R: 956243582

P: 1



SECRETARÍA  
DE  
HACIENDA Y CRÉDITO PÚBLICO

UNIDAD DE CRÉDITO PÚBLICO  
DIRECCIÓN GENERAL ADJUNTA DE DEUDA  
PÚBLICA  
DIRECCIÓN DE ORGANISMOS FINANCIEROS  
INTERNACIONALES

Oficio 305.15 - 0942

México, D.F. a 6 de agosto de 2004

SR. AHMED DJOHLAF

Jefe de la Oficina de Coordinación GEF/PNUMA  
P. O. BOX 30552  
Nairobi, Kenya

Hago referencia a la propuesta de proyecto "Regional Framework for the Integrated Management and Sustainable Use of Transboundary Water Resources in the Rio Bravo Drainage Basin" que será sometida a consideración del Fondo para el Medio Ambiente Mundial (GEF) para su financiamiento bajo la modalidad PDF A, a través de la Organización de Estados Americanos (OEA), como agencia ejecutora regional, la Comisión Nacional del Agua (CNA) y la Universidad Autónoma de México (UNAM) como agencias ejecutoras locales y del Programa de las Naciones Unidas para el Medio Ambiente (PNUMA) como agencia instrumentadora del GEF.

Sobre el particular, a través del presente me permito comunicar a usted que en virtud de que el proyecto de referencia cuenta con el aval técnico de la Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT), esta Secretaría de Hacienda y Crédito Público está de acuerdo en que dicha propuesta se someta a consideración del Secretariado del GEF en Washington, a través del PNUMA como Agencia Instrumentadora del GEF en México; lo anterior, en virtud de que su financiamiento contribuirá al cumplimiento de metas sectoriales de desarrollo.

Mucho le agradeceré nos mantenga informados del trámite que guarden estas gestiones, y sin otro particular por el momento, aprovecho la ocasión para reiterar a usted las seguridades de mi más atenta y distinguida consideración.

Atentamente,

El Director General Adjunto de Deuda Pública

Ricardo Sánchez Baker

**RIO BRAVO PDF-A ENDORSEMENT LETTER**  
**ENGLISH TRANSLATION**

Mr. Ahmed Djohglaf  
Chief of the Coordinating Office GEF/UNEP  
PO Box 30552  
Nairobi, Kenya

I am writing in reference to the proposed project "Regional Framework for the Integrated Management and Sustainable Use of Transboundary Water Resources in the Rio Bravo Drainage Basin", which is submitted for consideration to the Global Environmental Fund (GEF) for funding under the PDF A, through the Organization of American States (OAS), as regional executing agency, the Comision Nacional Del Agua (CNA) and the Universidad Autonoma de Mexico (UNAM), as local executing agencies, and the United Nations Environmental Program (UNEP), as implementing agency for GEF.

Specifically, by way of this letter I communicate to you that because the mentioned project has the technical assurance from the Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT), this Secretary of Hacienda and Public Credit is in agreement that the mentioned proposal be submitted for consideration by the GEF Secretariat in Washington, through the UNEP as Implementing Agency of the GEF in Mexico; and that its financing will contribute to accomplishing the goals of development.

I would be most thankful if you keep us informed of the progress of this project proposal, and without any other information at this moment, I would like to take this opportunity to reiterate to you my assurances of my most attentive and distinguished consideration.

Sincerely,

The General Director of Public Debt  
Ricardo Sanchez Baker



## Annex 2 Acronyms

- BDAN - El Banco de Desarrollo de América del Norte (North American Development Bank)
- CNA - La Comisión Nacional del Agua (National Commission on Water)
- CWA - Clean Water Action
- COCEF - Comisión de Cooperación Ecológica Fronteriza Border (Boundary Environment Cooperation Commission)
- EMINWA - UNEP Environmentally-Sound Management of Inland Waters (UNEP)
- EPA - U.S. Environmental Protection Agency
- GEF - Global Environment Facility
- GEF-IW - GEF International Waters
- GIS - Geographic Information System
- GOMLME - Gulf of Mexico Large Marine Ecosystem
- GS/OAS - General Secretary/Organization of American States
- IBWC - International Boundary and Water Commission
- IW - International Waters
- IW-Learn - UNDP International Waters Learning Exchange and Research Program
- IWRN - OAS Inter-American Resources Network
- NAFTA - North American Free Trade Agreement
- NEPA - National Environmental Policy Act
- NGO - Nongovernmental Organization
- OAS - Organization of American States
- OP#10 - GEF International Waters, Operational Program 10
- PDF-A - GEF Project Development Facility, Block A
- PDF-B - GEF Project Development Facility, Block B
- PNH - Programa Nacional Hidráulico (National Hydrologic Program)
- Pol - WSSD Plan of Implementation
- SAP - GEF Strategic Action Programme
- SEMERNAT - Secretaría de Medio Ambiente y Recursos Naturales (Environmental and Natural Resources Secretariat)
- TCEQ - Texas Commission on Environmental Quality
- TDA - GEF Transboundary Diagnostic Analysis
- UNAM - La Universidad Nacional Autónoma de México (National Autonomous University of Mexico)
- UNDP - United Nations Development Programme
- UNEP - United Nations Environment Programme
- U.S. AID - United States Agency for International Development
- USDE - OAS Unit for Sustainable Development and Environment
- WSSD - World Summit on Sustainable Development

### Annex 3. Mini Log frame Matrix

#### ❖ PROJECT RATIONALE AND OBJECTIVES

The Rio Bravo is central to the cultural heritage and history of the Mexico – USA border region, with its 467,000 km<sup>2</sup> drainage basin stretching across 8 States (Chihuahua, Coahuila, Nuevo Leon, Tamaulipas, Durango, Texas, New Mexico and Colorado) in 2 countries (Mexico and the United States). The Rio Bravo has a length of 3,033 km, making it the 5<sup>th</sup> largest river in North America and 24<sup>th</sup> largest in the world. Its headwaters are in the southeastern Colorado, with the historical average annual flow at the Colorado – New Mexico border being approximately 400 million m<sup>3</sup>. After flowing through the State of New Mexico, the river subsequently flows between Texas and Mexico, ultimately draining into the Gulf of Mexico. The 2,000 km stretch of the river between Ciudad Juarez, Chihuahua and El Paso, Texas constitutes the international boundary between Mexico and the United States. The international stretch also contains two reservoirs jointly operated by the two countries, Lake Amistad (3.9 billion m<sup>3</sup> volume) and Falcon Lake (3.1 billion m<sup>3</sup> volume).

The rainfall – evaporation patterns in the Río Bravo drainage basin highlight its arid character. The annual precipitation in the portion of the Rio Bravo between Ciudad Juarez, Chihuahua/El Paso, Texas and Lake Amistad ranges between 20-50 cm, compared to its annual net evaporation ranging between 132-173 cm. The annual precipitation in the region between Lakes Amistad and Falcon is only slightly higher at approximately 41-81 cm, compared to its annual net evaporation between 102-142 cm. The situation is relatively best in the lower Rio Bravo Valley, with the annual precipitation ranging between 51-71 cm, compared to its annual net evaporation between 102-162 cm. This latter region, however, also experiences the greatest water abstractions for the irrigation-dependent citrus-fruit and truck-farm region in the lower Rio Bravo Valley that is of major economic importance on both sides of the border.

The natural heritage of the Rio Bravo basin is believed to be unmatched by any desert river system in the world, with its streams and springs being home to an amazing diversity of fish (pupfish, shiners, gambusia, minnows, darters, ciclids), many found nowhere else in the world. The river also has a mosaic of habitats along its length, including riparian forests, mudflats, salt marshes, and freshwater ciénegas. Millions of migratory birds stop to feed and rest along the river, and reptiles and amphibians thrive in its wetlands. The lower Rio Bravo Valley also is one of the top bird-watching destinations in the Americas, with over 465 bird species and a wide range of habitats.

Being virtually the only source of readily-available freshwater in this arid region of North America, the Rio Bravo is a vitally-important water source for both countries, particularly to meet drinking water and agricultural needs, and for other environmental and economic development needs on both sides of the border. The river is already over-allocated, however, with diversions for irrigation and municipal use claiming 98% of its average annual flow. The water abstractions in some areas are so large that little or no water is available. The river stretch below Ciudad Juarez, Chihuahua/El Paso, Texas, for example, is typically dry throughout the year because of its complete diversion for human uses, and does not resume significant flows until its confluence 400 km downstream with the Rio Conchos, near Ojinaga, Chihuahua/Presidio, Texas, earning this stretch the title of the "Forgotten River." The absence of flood flows has drastically changed the appearance of this stretch of the river and its ability to transport water and sediments, causing the river channel to narrow, while the growth of exotic salt cedar (tamarisk) has proliferated and native

riverine habitats have disappeared. The Rio Conchos from Mexico supplies the Rio Bravo with about 2/3 of its flow below the confluence of the two rivers.

The Mexico - Texas border is one of the most rapidly-growing regions in both countries, spurred in part by the 1,400 *maquiladora* (product assembly) plants and related economic activities associated with the North American Free Trade Agreement (NAFTA). There are 7 major Mexico - Texas city pairs with substantial populations along the international Rio Bravo border, including Ciudad Juarez - El Paso (1,771,388), Ciudad Acuna - Del Rio (143,295), Piedras Negras - Eagle Pass (150,848), Nuevo Laredo - Laredo (506,316), Reynosa - McAllen (520,219), Matamoros - Brownsville (532,457), with those cities in the lower Rio Bravo Valley almost entirely dependent on the river for their drinking water supply. The Rio Bravo drainage basin population was approximately 13 million inhabitants in 1990, with the portion of the population in the international stretch of the Rio Bravo doubling to more than 6 million people over the last 15 years. The population along the Mexican border increased 26% between 1980-1990, with the corresponding number on the Texas side being 27%. The annual growth rate in most of the basin's largest cities has topped 3% (the projected growth rate for Ciudad Juarez is 4.7%), and there is no doubt the currently-serious water shortages along the Rio Bravo will continue into the future unless significant efforts are undertaken for its sustainable use and management throughout its drainage basin. The important agricultural and populations centers that draw on the river are located downstream of Falcon Lake, with the population in the lower Rio Bravo Valley expected to reach 4 million by 2030. The total water use in 2002 on the Texas side of the border in the lower Rio Bravo Valley, for example, was approximately 2.22 billion m<sup>3</sup>, with the area facing a predicted population increase of 175% between 2000 and 2050.

The numerous informal settlements (*colonias*) along both sides of the border also affect the quantity and quality of water in the international stretch of the river. Within 160 km of the Mexico - Texas border, for example, an estimated 380,000 inhabitants live in 1,500 unincorporated subdivisions in Texas, lacking either proper potable water or wastewater services. Most use improperly-operated septic tanks, cesspools, outhouses, privies, or no treatment at all before discharging their wastewater directly into surface water or into the ground. These *colonias* are most concentrated in the lower Rio Bravo Valley, or the Ciudad Juarez, Chihuahua/El Paso, Texas area. Further, the Mexican border cities of Ciudad Juarez, Ojinaga, Acuna, Piedras Negras, Reynosa and Matamoros discharged an estimated 571,000 m<sup>3</sup> of wastewater into the Rio Bravo and Gulf of Mexico each day in the mid-1990s, with about 333,000 m<sup>3</sup> being untreated.

Regarding its water quality, an initial study of the international stretch of the Rio Bravo in 1992-1993 by federal and state authorities in both countries identified a disturbing trend of high toxics levels in water, sediment, and fish in several of the 19 main-stem monitoring sites and almost all the 26 tributary monitoring sites, with at least one toxic substance exceeding the screening criteria being found in water, sediment, or fish tissue at each of the sites. The 30 chemicals exceeding the screening levels included PCBs, cyanide, mercury, lead and residual chlorine. A second phase study in 1995 on 27 main-stem and 19 tributary monitoring sites confirmed the findings of the first study, indicating a "high potential for toxic contamination" in significant reaches of the Rio Bravo, including that downstream of Ciudad Juarez/El Paso, Nuevo Laredo/Laredo and Ojinaga/Presidio, as well as in Lake Amistad. Additional further studies confirmed that salinity, nutrients and fecal coliform bacteria remain concerns throughout the Rio Bravo drainage basin.

The water scarcity situation in the lower Rio Bravo valley is particularly critical, since this stretch of the river is the primary source of irrigation water for the previously-noted economically-important agricultural activities on both sides of the border. The

persistent water scarcity has resulted in substantial economic damage to farmers and agricultural operations on both sides of the border in the lower Rio Bravo Valley. The water scarcity also has seriously impacted aquatic ecosystems along the length of the river and in the coastal zone. Because of prolonged drought, for example, the average annual measured water flows from the Rio Conchos to the Rio Bravo decreased steadily from over 66.5 m<sup>3</sup>/second to 2.3 m<sup>3</sup>/second between 1990-1995.

Water losses in transport through systems along the river also negatively impact the river's water availability. These include inefficient irrigation practices resulting from a lack of incentives for implementing conservation techniques on a broad scale. Some municipal systems also are highly inefficient due to leaks and out-dated conveyance systems. The city of Nuevo Laredo, for example, reported that of its total annual demand for water in 1996, 66% constituted leaks and water losses. Further, most of the river's meanders and oxbows are gone and, for the most part, seasonal floods are a thing of the past.

The lower Rio Bravo Valley lies within the Tamaulipan biotic province, a semi-arid, sub-tropical biogeographical zone. The impacts of clearing vegetation on native brushlands, and of hydrologic modifications to the lower basin, to meet water needs on both sides of the border, have been dramatic over the decades. More than 95% of the lower basin's native brushland has been converted to agricultural or urban use, with very few undisturbed, natural riparian communities remaining in the lower basin. Water development projects along this part of the river have seriously disrupted natural flow regimes, affected wetlands and their aquatic fauna, and degraded native riparian plant communities. Much of this region's upland areas of this region are critical habitat for endangered species.

Exotic water plants, notably water hyacinth and hydrilla, have recently become major problems in the Rio Bravo. These plants draw water up into their roots and transpire it into the atmosphere. They also clog the free flow of the river. With some of the highest growth rates in the world, the plants can double their population in just 12 days. Water hyacinth, for example, can reach biomass densities as staggeringly high as 450,000 kg/ha in less than 2 weeks. Remote images from the Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) instrument on NASA's Terra satellite, for example, illustrated that hundreds of meters of river changed from being open water to being completely clogged in a matter of just a few weeks. In one stretch, a single blockage grew by over 2.4 km in just 6 weeks, equivalent to about 60 m of river per day. As one example of the impacts of this explosive growth, water managers previously had to release up to 30% more water from Falcon Lake to get sufficient water to push the thick weed mats down the lower Rio Bravo. Unfortunately, other feasible methods of attempting to treat this infestation (e.g., aquatic herbicides, weed harvesting, sterile grass carp, weevils) also have their physical and economic drawbacks.

The Rio Bravo estuary is biologically productive in its own right, being renowned for some characteristic estuarine species, including an indigenous species of hypersaline-tolerant oysters (*Crassostrea equestris*). The ecological health and integrity of this fragile estuary is extremely dependent on quantifiable freshwater inflow targets, including regular, minimum seasonal freshwater quantities from the Rio Bravo to maintain estuarine in-channel, open-water habitats, and periodic flood events to flush the system and cause overbanking to the riparian wetlands. The precarious state of the estuary at the mouth of the Rio Bravo became dramatically evident in February 2001, when the river mouth was blocked by a sandbar because of the low-flow conditions caused by the severe drought the lower river basin had been experiencing since 1995. The average annual flow rate at the mouth of the Rio Bravo in 1962 was nearly 3 million m<sup>3</sup>, compared to the 1990-1995 average of zero.

The river mouth remained closed until temporarily dredged open by the International Boundary and Water Commission in September 2001. Subsequent tidal water changes again closed the mouth until September 2002, when higher tides and slightly-increased rainfall-derived inflows partially opened it. Analysis of the biological impacts of the rivermouth closing indicated the most important functions of the Rio Bravo freshwater inflows were to provide reduced salinity habitat for post-larval and juvenile marine species to complete their life cycles, as well as a means of ingress and egress to the estuarine habitat for some sensitive aquatic species.

Against this background, this proposed project is designed to further catalyze cooperation among the two countries, through furthering a process designed to identify common water resources policy issues, and to formulate a new cooperative framework within which to address shared, transboundary water resources issues. Within the framework of the Transboundary Diagnostic Analysis – Strategic Action Program (TDA-SAP) of the GEF, the ultimate goal of this project is to develop and apply an integrated, interdisciplinary management approach for sustainable water use within the Rio Bravo basin, including a dynamic geospatial picture, depicting the present and predicting hydrologic, environmental and other conditions of the river throughout its basin. This approach also will be useful in (1) determining critical water needs, flows and uses, (2) locating significant economic, environmental, and cultural resources, (3) evaluating the environmental and social impacts of predicted conditions and trends upon these resources, (4) developing a natural resource management plan, focusing on freshwater ecosystems and related environmental and social resources, and (5) monitoring the results of these efforts over the long term.

#### **INDICATORS:**

Consultation meeting held, and an agreed document for developing a cooperative framework of action is prepared.

#### **❖ PROJECT OUTCOMES**

- Enhanced co-operation between the two riparian countries in the management and sustainable use of the shared transboundary waters of the Rio Bravo drainage basin.
- A Geographic Information System (GIS) capable of supporting data collection, updating, revision, and analysis related to integrated aquatic resource management within the Rio Bravo Basin.
- A report on spatial and temporal variation of water quality in the Rio Bravo basin over the past 5 – 10 years, including to the extent possible an assessment of the environmental and social implications, and predictions of such variations for the coming decade.
- Identification of current and future environmental and economic water demands on a drainage basin scale.
- Identification of opportunities for enhancing the use of existing water resources, including increased agricultural irrigation efficiency and improve watershed hydrologic function through management of vegetation in the basin and other appropriate means.
- An interdisciplinary management plan for ensuring sustainable water resources for beneficial uses throughout the Rio Bravo basin, including agricultural and urban water demands, and maintenance of aquatic ecosystems.

## INDICATORS

- Consensus on the need to co-operate among the two riparian countries is achieved.
- A technical review identifying common transboundary issues of concern, the current state of knowledge with respect to the key issues of concern, gaps in the current knowledge base, and proposed means for the countries to move forward through joint technical co-operation in the management and sustainable use of the Rio Bravo system, is published.
- Work program, based upon the agreed and published technical review forming the basis of a GEF International Waters proposal to be submitted by Mexico, on behalf of the two riparian countries, is developed.
- International consultative meetings are held.
- A GEF International Water project document. Consistent with the objectives of OP10 for a Full-Size Project appropriate to the agreed work program, prepared by the two countries, is endorsed and submitted to the GEF through UNEP.

## ❖ PLANNED ACTIVITIES TO ACHIEVE OUTCOMES

- Building on the preparatory work already undertaken by the National Autonomous University of Mexico (UNAM) and Texas State University (Texas State), and in consultation with other relevant Mexico-U.S. border institutions (IBWC, COCEF, BDAN), prepare and disseminate a draft technical review on the status and needs of the Rio Bravo drainage basin to key technical staff and stakeholders in the two riparian countries and the relevant states for comment and refinement, using appropriate electronic and written for a and discussion meetings.
- Based on the results of the above-noted initial consultation and discussions, update and refine the technical review to include new additional or augmented information, as necessary, and develop a presentation through which to introduce discussions leading to the development of recommended work elements necessary for creating a framework for the joint management and sustainable use of the water resources of the Rio Bravo drainage basin.
- Convene a strategic planning session, with representation from the two riparian countries, and relevant individuals, agencies and organizations in the relevant states in both countries, to develop the recommended work elements and timetable necessary for creating a framework for the joint management and sustainable use of water resources of the Rio Bravo drainage basin.
- Share the recommended work program and timetable with relevant decision-makers and stakeholders from within the two basin countries, through the auspices of UNAM, Texas State, IBWC, COCEF and other relevant institutions, and obtain agreement on the preparation of a PDF-B proposal; prepare and agree on the relevant proposal elements through virtual consultation with key technical agencies; and complete formal endorsement of the relevant proposal by the respective GEF Focal Points in the riparian countries.

## INDICATORS

- Documents are prepared and disseminated through electronic and written fora, and by direct distribution to specific individuals and institutions for comment and input, as necessary.
- Refined documents are developed for presentation to a regional workshop to discuss and refine recommended work elements for the creation of a management framework for the sustainable use of the waters of the Rio Bravo drainage basin.

- Riparian countries agree on the process for technical co-operation in the development of a framework to prepare a strategic, integrated management program for the management and sustainable use of the water resources of the Rio Bravo drainage basin.
- Recommended work elements for the creation of a management framework for the Rio Bravo drainage basin are developed and distributed.
- Refined documents are presented to a regional workshop.
- Recommended work elements are agreed to by the riparian countries at regional workshop convened by UNAM and Texas State.
- A PDF-B proposal, based upon the agreed recommended work elements and timetable, is prepared and agreed to as a result of virtual and other relevant consultation.
- A PDF-B proposal is prepared, endorsed and submitted by Mexico on behalf of the two riparian countries.

## Annex 4: IAs comments and Response to Project Review Sheet

### (I) Comments

#### 1) GEF SEC Comments



#### GEF SECRETARIAT PROJECT AGREEMENT REVIEW

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Country/Region : Mexico

Project Title : A Regional Framework for the Development, Management and Sustainable Use of the Water Resources in the Rio Bravo Drainage Basin

GEFSEC Project ID : 2860

Operational Program : 9

Implementing Agency(ies) : UNEP

Anticipated project financing (\$ million) : PDF \$ 0.03      GEF Project Allocation \$ 0.00      Total Project Cost : 0.00

Target Work Program Date :

Program Manager : Andrea Merla

IA Contact Person : Isabelle Vanderbeck

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#### Summary

Undertake the enabling activity equivalents of a TDA and SAP to meet future human and ecosystem water demands in the Rio Bravo basin, including meeting near-future water shortages.

#### Expected Outputs

not well defined yet



**Comments :**

Probably should be a GPA demo in OP 10, not an OP 9 project due to the fact that the river has dried up and did not reach the sea in a recent year. Not strategic priority IW-1. That is only when a TDA and SAP are ready for implementation. This would be IW-3 like, a demo on IWRM to balance competing water uses in the basin.

Did notice that the 1040's treaty was not highlighted--just environment agreements. The water flow agreement is critical to include as the Block B is executed.

**Recommendations :**

Please revise to make the minor changes: GEFSEC would then no have an objection to executing the Block A.

## 2) UNDP Comments

UNDP is supportive of this initiative as it will provide important inputs to the TDA-SAP activities that will be carried out through the PDF-B, *A Transboundary Diagnostic Analysis and Strategic Action Programme for the Gulf of Mexico Large Marine Ecosystem*. The main objective of UNDP's project will be to address top priority multiple focal area issues of the GOM/LME, its coastal area, and any tributary basins of concern, in an integrated fashion and building upon ongoing or planned activities. The incorporation of research and outputs from the Rio Grande basin project will therefore strengthen the LME approach.

Various activities planned within the GOM/LME initiative indicate there is scope for significant linkages with the Rio Grand project, including strengthening of a mechanism for regional co-operation, establishment of an ecosystem-wide mechanism for developing indicators for forecasting the health of the GOM/LME, and review of the existing knowledge of the status and threats to the GOM/LME. Given that the UNDP project is at the PDF-B stage, there is an opportunity to establish linkages between the projects to enhance exchange of information and to identify potential for strengthening capacity for ecosystem-based resource management. The two projects can therefore contribute to the development of a more encompassing GEF contribution to this waterbody.

### 3) World Bank Comments

The proposal is well thought and presented. However, we feel that it would benefit from taking the following points into consideration:

The proposed GEF project might more clearly address the important missing links to improve integrated river basin management in the Rio Bravo/Grande basin. There are other initiatives addressing similar and related aspects so there needs to be a well coordinated approach to make it an integrative and collaborative effort. These include work being carried out by the University of Texas, The National Heritage Institute and the World Bank.

Reference might be made as to how this project will leverage other, larger ones and advance best practices of integrated water resources management in the Rio Bravo/Grande basin.

The proposal would benefit from better definition of the issues to be addressed as well as their global significance. The objective statement needs to be clarified as the value added of GEF involvement is not evident.

It seems that the technical review and information collection as well as the inter-governmental meeting are covering ground that has already been done. We suggest that the proposers liaise with University of Texas to refine the proposal so as to focus on the gaps.

OP 9 is the Integrated Land and Water Multiple Focal Area, which focuses on integrating better land use practices with sound waters resources management policies and practices, recognizing the inherent linkages between adjacent land and water ecosystems such as watersheds and their receiving waters, and piloting the Large Marine Ecosystem approach to transboundary water resources management. Since this is the intended OP to which a subsequent application will be made, this PDF-A should more clearly focus on these aspects, in particular integration of the land and WRM issues in the Basin.

## (II) Responses

### 1) GEF/SEC

#### (A) Operational Program:

The PDF-A and later on the MSP will certainly be developed from an OP10 perspective. The project will involve multiple stakeholders on both sides of the border and but also through multiple focal areas, including aspects of integrated water resource management, biodiversity protection and land management. We do acknowledge that the project involves elements of the GPA, in that the river does normally flow to the Gulf of Mexico. On rare occasions, due to over-abstraction and/or extreme drought conditions, this flow can be interrupted, as happened in 2001.

#### (B) Strategic Priority:

We agree that IW-3 is the most appropriate strategic priority for this project.

#### (C) 1944 Treaty:

We recognize the central role of this binational treaty in allocating the waters of the Rio Bravo between the two countries. However, this is a sensitive subject on the part of the two governments, to such an extent that they have specifically chosen not to address treaty and legal obligations under this portion of the project. Nevertheless, the implementation of strategic actions under the Rio Bravo SAP will doubtless require consideration of the legal obligations of the basin countries under this treaty. Such consideration should be predicated upon the outcome of an agreed and scientifically-based, integrated TDA. Indeed, development of the scientific and socioeconomic program as part of the TDA will contribute to building capacity and confidence in persons and institutions on both sides of the border, which will clearly support future discussions of transboundary treaty obligations. Further, discussions held during formulation of the PDF-A included consideration of creating common data platforms between the basin countries for both water quantity and quality monitoring. Such information and data are critical to any future consideration of water allocations and management of the river's waters for sustainable use, including both human and ecosystem uses. Please note that there are other agreements governing water use in the Rio Bravo basin, including inter-state compacts, whose obligations also must be considered as part of the SAP formulation.

### 2) UNDP

We are pleased that UNDP appreciates the clear linkage between the Rio Bravo project and its GOM/LME. We also previously noted this linkage, identifying it in the Concept Paper as well.

### 3) World Bank

First, we are aware of the National Heritage Institute/University of Texas proposal, and will definitely be cooperating with the appropriate individuals in these organizations during the PDF-A and subsequent phases. In fact, we met and spoke with Greg Thomas, president of the National Heritage Institute earlier this year at the World Water Week conference at the World Bank. We discussed our mutual interest in the Rio Bravo, and agreed that we definitely should join forces in regard to pursuit of the goal of sustainable use of this important transboundary water system. In fact, we specifically mentioned our intention to invite the Heritage Institute to the PDF-A meeting, and to enlist its assistance in the meeting preparations.

We note also that the Bank message says "the proposed GEF project might more clearly address the important missing links to improve integrated water management in the Rio Bravo." We certainly agree that essentially NO form of integrated water management is currently taking place in this drainage basin. That's why it is in such a mess, and the very reason that we're pursuing a TDA/SAP in the first place. The Bank certainly is familiar with the TDA/SAP process, and presumably is aware that identification of ongoing activities, as well as information and data sources, is a major component of this process. The reality is that a large number of organizations on both sides of the border are engaged in various projects on the Rio Bravo. Unfortunately, we have determined that few of them are familiar with what others are doing, or what organizations have what kind of data. As a result, the Rio Bravo suffers from a very uncoordinated approach, with the various ongoing activities actually doing very little to facilitate the ultimate goal of sustainable use of this transboundary river system. In fact, identification of missing links is a major purpose of a PDF-A, so it is difficult to provide much detailed information on this topic at this early stage in the process.

Further, we will definitely include work being carried out by other organizations as we move forward in the TDA/SAP process. The National Heritage Institute and its partners would definitely be among those we will invite to the PDF-A meeting, as well as their participation in subsequent activities. Their proposed physical model of the basin would be a valuable input to the process. By itself, however, it is inadequate to address the overall goal of sustainable use of the Rio Bravo. This is a strength of our proposal, which is meant to be comprehensive within the framework ultimately of a TDA/SAP for the Rio Bravo.

Reference also is made to "work carried out" by the World Bank. We were not aware the Bank was doing anything specifically in the Rio Bravo basin, and would certainly appreciate any additional information on this issue.

Given that we're only at the PDF-A stage, it also seems premature to us to make reference as to how this project will leverage other larger ones. Although we could provide further information on larger funding possibilities in the PDF-A proposal, it seems this issue is one that we should discuss at the PDF-A consultation, which will include donors and funders, rather than in the PDF-A proposal.

It was unclear to us why a better definition of the issues to be addressed should be included in the PDF-A proposal. Again, being at the PDF-A stage, the major stakeholders haven't yet had a forum to even discuss the issues of interest to them. Thus, it's unclear to us how we can better define them at this stage, other than in the most general sense. We can certainly do more in this area in the PDF-B stage, but it isn't clear that we can discuss the matter much more at this stage, other than describing the serious water shortage situation throughout the basin. In fact, the latter is highlighted in both the PDF-A proposal and Concept Paper. Further, it seems that the TDA/SAP approach speaks for itself as a framework for coordinating needed activities on both sides of the border, certainly one of the value added elements of the GEF process in any TDA/SAP. Recall also that we have already connected the project to the goals of the larger GOM/LME, so one value-added is already defined in the proposal and concept paper.

We completely disagree with the comment that the technical review and information collection, or the inter-governmental meetings are covering ground that has already been done. As noted above, there are many activities that have been conducted in different regions of the basin, the vast majority being done in isolation of the others. A result of this uncoordinated approach is that it is, in fact, very difficult to get a clear picture of who is doing what in what areas, and what the results of such previous activities and studies have been, on either side of the border. As an example, many models have been developed for different water-related elements or geographic area of the basin. However, no attempt has yet been made to bring all the models together to determine whether or not, and how, they're provided us with information and data relevant to the sustainable use of the Rio Bravo. Rather, individuals and organizations continue to develop and apply models to different portions of the Rio Bravo basin, with little thought given to how they could be better integrated in order to provide reliable and scientifically-defensible management information. In fact, a sobering reality of this transboundary river system is that, in spite of all the technical review and information collection activities the Bank suggests has been done, the Rio Bravo remains a mess, with negative hydrologic, socioeconomic and ecosystem impacts throughout its drainage basin. Thus, whatever the state of the previous activities and programs in the basin, it is clear they are NOT working!

We certainly agree that the PDF-A should focus on the land and WRM issues in the basin, and thought this was clearly expressed in the PDA-A proposal and concept paper. In developing this project, we're operating under the assumption that this is the ultimate purpose of a TDA/SAP for this basin. We've also considered the freshwater - marine linkages (Rio Bravo - GOM/LME). So, we're aware of the many linkages that ultimately must be addressed in the TDA/SAP exercise, which brings me full circle to my earlier comment that, because of such linkages to be considered, we know that many people and organizations will eventually be involved in this project (including the National Heritage Institute and the University of Texas). In fact, one of the University of Texas researchers working with the National Heritage Institute has already received funds from my university for some Rio Bravo-related work (further information is provided below). Nevertheless, anything less than a comprehensive TDA/SAP will be sufficient to address the sustainable use of this heavily over-allocated and seriously-degraded transboundary river system.

As a matter of clarity, we also want to point out that we work at Texas State University, while the National Heritage Institute is working with the University of Texas. There are two different

universities (although located within 50 km of each other!). So, please don't be confused about this matter.

In closing, we are about to telephone Greg Thomas of the National Heritage Institute, to discuss how we might collaborate in this effort. We will fill him in on the status of our PDF-A proposal, and also invite him and his partners to participate with us in the PDF-A consultation. At the same time, as we have been planning all along, we want to ensure that the PDF-A and subsequent PDF funds go to OAS and UNAM, as the overall and local executing agencies. We will let you know the results of our conversation with him.

As one more item worth mentioning, we already have \$1.7 million in matching funds (in cash, not in-kind) from the U.S. Department of Agriculture for ongoing projects in the Rio Bravo basin. We're about to receive a 2<sup>nd</sup> tranche of another \$1.7 million in the new USA federal fiscal year (a total of \$3.4 million in matching funds from one source). We also have the possibility of a 3<sup>rd</sup> tranche of another \$1.7 million in the 3<sup>rd</sup> year. So, we already have substantial matching funds for this project, and we hope this level of funding already in place highlights our serious interest in working with colleagues and organizations on both sides of the border to develop a TDA/SAP for the sustainable use of this transboundary river system.

# Annex 5: Budget in UNEP Format

Annex 5

## Budget in UNEP Format

			2005 GEF	TOTAL
10	<b>PROJECT PERSONNEL COMPONENT</b>			
	1200 Consultants			
	1201 Consultants re preparation of TPR	w/m 2500/m	2,500.00	2,500.00
	1299 Sub-Total		2,500.00	2,500.00
	1999 Component Total		2,500.00	2,500.00
30	<b>TRAINING COMPONENT</b>			
	3300 Meetings/conferences			
	3301 Technical Workshop including travel costs		10,000.00	10,000.00
	3302 Validation/Intergovernmental Workshop including travel costs		12,500.00	12,500.00
	3399 Sub-Total		22,500.00	22,500.00
	3999 Component Total		22,500.00	22,500.00
	<b>Grand Total</b>		<b>25,000.00</b>	<b>25,000.00</b>

**Annex 6. Terminal Report**

(For External Projects Only)

Implementing Organization \_\_\_\_\_

Project No.: \_\_\_\_\_

Project Title: \_\_\_\_\_

1. **Project Needs and Results**

Re-state the needs and results of the project.

2. **Project activities**

Describe the activities actually undertaken under the project, giving reasons **why some activities were not undertaken, if any.**

3. **Project outputs**

Compare the outputs generated with the ones listed in the project document.

List the actual outputs **produced but not included in previous Progress Reports** under the following headings

(Please tick appropriate box)

(a) **MEETINGS** (UNEP-convened meetings only)

Inter-governmental (IG) Mtg.    Expert Group Mtg.    Training Seminar/Workshop    Others

Title: \_\_\_\_\_

Venue and dates \_\_\_\_\_

Convened by \_\_\_\_\_ Organized by \_\_\_\_\_

Report issued as doc. No/Symbol \_\_\_\_\_ Languages \_\_\_\_\_ Dated \_\_\_\_\_

For Training Seminar/Workshop, please indicate: No. of participants \_\_\_\_\_ and attach **annex** giving names and nationalities of participants.

(b) **PRINTED MATERIALS**

Report to IG Mtg.    Technical Publication    Technical Report    Others

Title: \_\_\_\_\_

Author(s)/Editor(s) \_\_\_\_\_

Publisher \_\_\_\_\_

Symbol(UN/UNEP/ISBN/ISSN) \_\_\_\_\_

Date of publication \_\_\_\_\_

(When technical reports/publications have been distributed, attach **distribution list**)

(c) **TECHNICAL INFORMATION**

**PUBLIC INFORMATION**

Description \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Dates \_\_\_\_\_



**(d) TECHNICAL COOPERATION**

Grants and Fellowships

Advisory Services

Staff Missions

Others (describe)

Purpose \_\_\_\_\_

Place and duration \_\_\_\_\_

For Grants/Fellowships, please indicate:

Beneficiaries

Countries/Nationalities

Cost(in US\$)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**(f) OTHER OUTPUTS/SERVICES**

For example, Networking, Query-response, Participation in meetings etc.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**4. Use of outputs**

State the use made of the outputs.

**5. Degree of achievement of the objectives/results**

On the basis of facts obtained during the follow-up phase, describe how the project document outputs and their use were or were not instrumental in realizing the objectives/results of the project.

**6. Conclusions**

Enumerate the lessons learned during the project execution. Concentrate on the management of the project, indicating the principal factors which determined success or failure in meeting the objectives set down in the project document.

**7. Recommendations**

Make recommendations to:

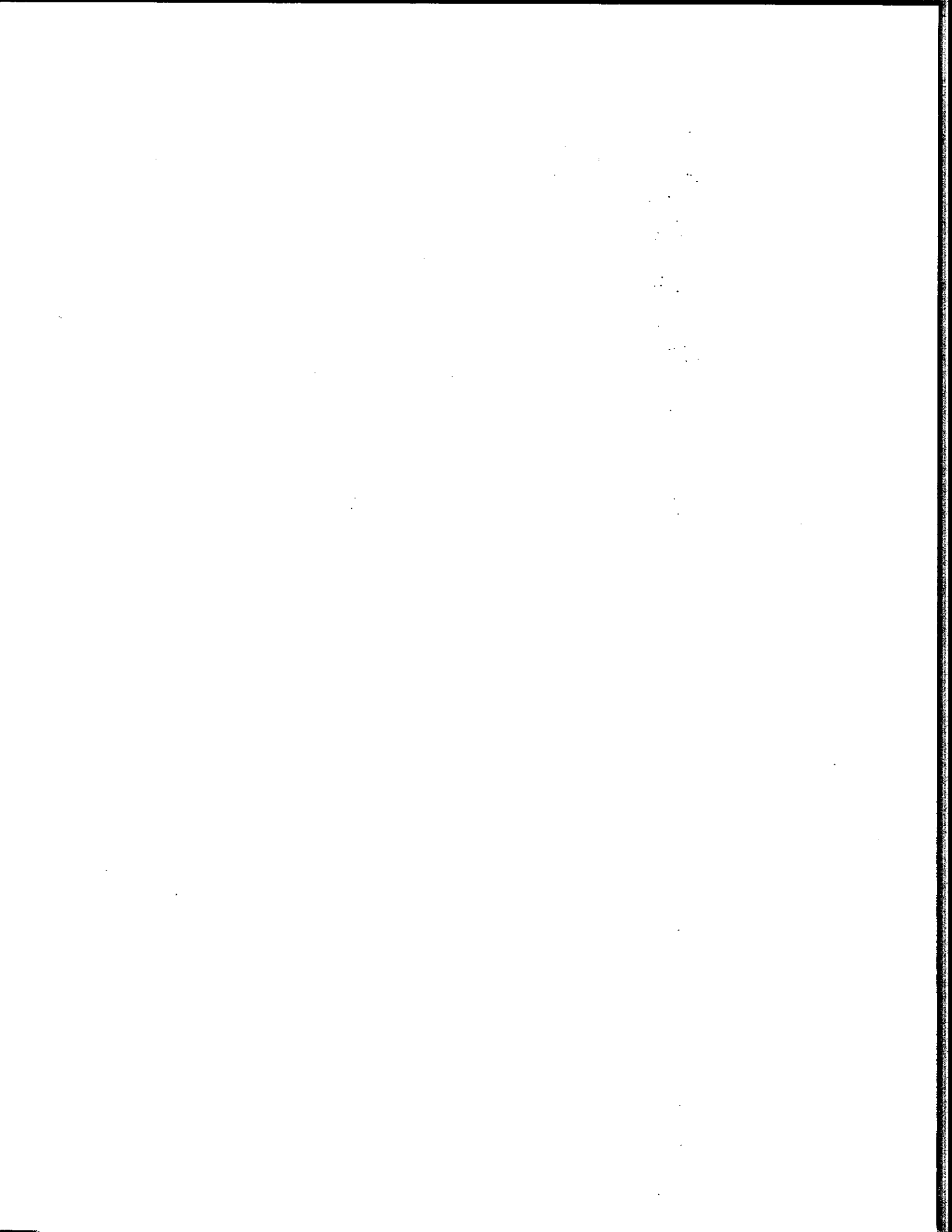
(a) Improve effect and impact of similar projects in the future;

(b) Indicate what further action might be needed to meet the project objectives/results.

**8. Non-expendable equipment (value over US\$1,500)**

Please attach to the terminal report a **final** inventory of all non-expendable equipment (if any) purchased under this project, indicating the following:

Date of purchase, description, serial number, quantity, cost, location and present condition, together with your proposal for the disposal of the said equipment.



**Annex 7. Format of Quarterly Project Expenditure Accounts for Supporting Organizations**

Quarterly project statement of allocation (budget), expenditure and balance (Expressed in US\$) covering the period  
 Project No. .... to .....  
 Project title: ..... Supporting Organization .....  
 Project commencing: ..... Project ending: .....  
 (date) (date)

Object of expenditure by UNEP budget code	Project budget allocation for year.....		Expenditure incurred for the quarter .....			Cumulative expenditures this year .....		Unspent balance of budget allocation for year .....	
	m/m (1)	Amount (2)	m/m (3)	Amount (4)	m/m (5)	Amount (6)	m/m (7)	Amount (2)-(6)	
1201 Consultants re preparation of TPR									
2201 Contract re field reconnaissance									
3301 Technical Workshop									
3302 Validation Workshop									
<b>99 GRAND TOTAL</b>									

Signed: \_\_\_\_\_  
 Duly authorized official of supporting organization

**NB: The expenditure should be reported in line with the specific object of expenditures as per project budget**