

## PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project

THE GEF TRUST FUND

**Submission Date**: 11 September 2008 **Re-submission Date**: September 26, 2008

Milestones

CEO Endorsement/Approval

Mid-term Review (if planned)

Implementation Completion

Work Program (for FSP)

GEF Agency Approval

Implementation Start

INDICATIVE CALENDAR

**Expected Dates** 

November

Jan 2010

Jan 2010

October 2009

December 2011

December 2013

2008

## **PART I: PROJECT IDENTIFICATION**

**GEFSEC PROJECT ID**<sup>1</sup>:

GEF AGENCY PROJECT ID: GF/1010-

**COUNTRY(S):** Mexico

**PROJECT TITLE:** Regional Framework for Sustainable Use of the

Rio Bravo

**GEF AGENCY(IES):** UNEP, (select), (select)

OTHER EXECUTING PARTNERS: REGIONAL LEVEL: GS/OAS; NATIONAL LEVEL: National Commission on Water (La Comisión Nacional del Agua, CNA); Environmental and Natural Resources Secretariat (Secretaría de Medio Ambiente y Recursos Naturales,

(SEMARNAT); U.S. Environmental Protection Agency (USEPA);

LOCAL LEVEL: National Autonomous University of Mexico (Universidad Nacional Autónoma de México, UNAM);

Texas State University - San Marcos, USA

**GEF FOCAL AREA (S):** International Waters, (select), (select)

GEF-4 STRATEGIC PROGRAM(S): IW-SO1 – SP3 NAME OF PARENT PROGRAM/UMBRELLA PROJECT: N/A

#### A. PROJECT FRAMEWORK

**Project Objective:** To formulate a comprehensive, binational, ecosystem-based action programme(SAP) based on the principles of integrated water resources management, for the sustainable management and use of the Rio Bravo throughout its basin, and to create the necessary enabling social-economic and policy mechanisms for implementing the agreed action programme and engendering the necessary reforms.

<b>D</b> 1 1 G	Invest ment,	Expected	Expected	Indicative Financi		Indicativ financi		Total (\$)
Project Components	TA, or STA**	Outcomes	Outputs	(\$)	%	(\$)	%	Ισιαι (ψ)
1. Identification and understanding of socioeconomic and policy characteristics of the Rio Bravo and its basin, and constraints to its sustainable use.	STA	1) Basin-level assessment and policy, agreed by governments and stakeholders as basis for solid, feasible framework for integrated water resources management (IWRM) in the Rio Bravo Basin  2) Enhanced integration between laws, regulations and institutional capacities of Mexico and USA, supported by	1) Documented results of basin-scale analyses, scenarios, and reports articulating shared vision of the future of the Rio Bravo Basin  2) Inventory of basin socioeconomic characteristics, including water quantities, sources, uses and abstraction points within the Basin, and constraints to its sustainable	700,000	24	2,150,000	76	2,850,000

Project ID number will be assigned initially by GEFSEC.

2. Understanding the natural resource base in the Rio Bravo Basin	STA	international, national and State institutions and local governments adequately staffed and funded to implement policies and programs for implementing IWRM in Rio Bravo Basin  1) Improved knowledge on targeted issues identified during PDF-A including hydrology and hydraulics of basin; ecological, environmental, and administrative aspects of basin; integrated use of water,	use  3) Inventory of legislative instruments, policies and institutional capacities within the Rio Grande Basin related to the practice of IWRM, and identification of binational activities to standardize these elements, in order to facilitate an agreed approach to implementing IWRM throughout the Basin.  4) Documented inputs to the TDA and its root causes analysis on socioeconomic, legal, institutional and policy issues which in turn will serve as the basis for the SAP and relevant policy reforms.  1) Comprehensive reports on specific scientific, technical and socioeconomic topics necessary to formulate TDA, and published scientific papers and presentations at relevant conferences, workshops and technical seminars	1,000,000	22	3,529,491	7	4,529,491
			2)					
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			T 1	<del>                                     </del>				T
			Transboundary Diagnostic					
			Analysis					
			(TDA)					
			including a					
			root causes					
			analysis					
3. Development of	TA	1) Strategic	1) Documented	1,900,000	39	2,925,000	61	4,825,000
Response strategies		responses to	costs and	F ::1 10/				
		major	feasibility experiences	[with 1% of overall				
		transboundary	from <b>pilot-</b>	project				
		issues of concern,	scale	budget in				
		including	interventions	support				
		developing	(demonstration	of				
		experience in	projects) in	IW:LER				
		integrated water	IWRM on	AN]				
		resources	more efficient					
		management	irrigation water					
		(IWRM)	use practices; urban water					
			conservation					
		2) Strengthened	methods;					
		basis for	conjunctive use					
		information,	of surface					
		effective	water and					
		dissemination	groundwater;					
		system and	shifts to crops					
		increased	more suited to arid					
		stakeholder	environments;					
		awareness;	innovative					
		incorporation of	water supply					
		environmental	measures; etc.,					
		issues and	as input for the					
		management	SAP					
		measures in	formulation					
		educational	2) I 4					
		programs and	2) Inter- ministerial					
		decision making;	committees					
		enhanced	setablished and					
		effectiveness of	operational					
		actions through	1					
		adequate and	3) Effective					
		broadly-based	and operational					
		societal	integrated					
		acceptance and	information and project					
		understanding of	management					
		SAP process; and	system and					
		transparent	databases;					
		project						
		management	3)					
		process	Environmental					
		1) Agraad	Education and					
		4) Agreed,	Community Outreach					
		prioritized agenda (SAP) for	Program; and a					
		sustainable	multi-					
		utilization of	stakeholder					
			participation					
		water resources of	plan					
		Rio Bravo Basin, based on sound						
		science,	4) Financial					
		science,	strategy,					

appropriate	including		
technologies,	comprehensive		
sustainable	budget for		
finances, and	implementing		
comprehensive	SAP, and an		
	inventory of		
communications	potential		
program	revenue		
supporting the	sources		
needs of various	focussed on		
Basin	both		
stakeholders	traditional and		
	innovative		
	means and		
	approaches.		
	4)		
	Comprehensive		
	SAP including		
	structural and		
	non structural		
	measures,		
	policy reforms		
	etcfor		
	integrated		
	management of the Rio Bravo		
	basin. The SAP		
	also will		
	provide a		
	communication		
	startegy, and		
	include robust		
	financial		
	strategy and		
	modus		
	operandi for		
	attracting		
	private sector		
	interests, as		
	appropriate.		
	The SAP will		
	be agreed and		
	adopted by the		
	key basin		
	stakeholders		
	including the		
	SEMARNAT,		
	CAN, EPA,		
	IBWC, BECC,		
	RGWFCC -see		
	section B		
	below for		
	further info on		
	those		
	institutions.		
5) Knowledge	5) Website		
	compliant with		
management in	the		
support of	IW:LEARN		
IW:LEARN and	toolkit,		
GEF Sec IW	participation at		
indicator	the		
	International		
tracking tool	Waters		

		conferences; three to four experiences notes; tracked project progress reported using the GEF-IV IW tracking tool.					
4. Project management			400,000	23	1,350,000	77	1,750,000
Total project costs			4,000,000	28	9,954,491	72	13,954,491

<sup>\*</sup> List the \$ by project components. The percentage is the share of GEF and Co-financing respectively to the total amount for the component. \*\* TA = Technical Assistance; STA = Scientific & technical analysis.

#### B. INDICATIVE FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	Project Preparation * PDF-A	Project Preparation** PPG	Project	Agency Fee	Total
GEF	\$25,000		\$4,000,000	\$402,500	\$4,427,500
Co-financing			\$9,954,491		\$9,954,491
Total	\$25,000		\$13,954,491	\$402,500	\$14,381,991

<sup>\*</sup>PDF-A FUNDS = 25K APPROVED IN GEF3. \*\*PPG and associated agency fee is requested in the PPG request form.

## C. INDICATIVE CO-FINANCING FOR THE PROJECT (including project preparation amount) BY SOURCE and BY NAME (in parenthesis) if available, (\$)

Sources of Co-financing	Type of Co-financing	Amount
Government of Mexico	In-kind	810,000
Government of US	Grant and In-kind	8,754,491
GEF Agency(ies) – UNEP	In-kind	230,000
Bilateral Aid Agency(ies)	(select)	
Multilateral Agency(ies) – OAS (DSD)	In-kind	150,000
Private Sector	Unknown at this stage	
NGO	Unknown at this stage	
Others - WWF	In-kind	10,000
Total co-financing		9,954,491

#### D. GEF RESOURCES REQUESTED BY FOCAL AREA(S), AGENCY (IES) SHARE AND COUNTRY(IES)\* N/A

#### PART II: PROJECT JUSTIFICATION

A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED GLOBAL ENVIRONMENTAL BENEFITS TO BE DELIVERED: BACKGROUND AND INTRODUCTION: The 3,000-km long Rio Bravo, the 5th largest river in North America, and 24th largest in the world, is a major boundary between Mexico and the United States. It is central to the cultural heritage and history of the border region of both countries, with its 467,000 km2 drainage basin stretching across five Mexican States (Chihuahua, Coahuila, Nuevo Leon, Tamaulipa, Durango) and three USA States (Colorado, New Mexico, Texas). It traverses three major Ecoregions (Southern Rocky Mountains, Chihuahua Desert, and Tamaulipan Thorn Scrub) exhibiting a mosaic of mountain, desert and coastal habitats. The lower Rio Bravo valley is one of the most biologically-diverse regions in the world, with millions of migratory birds stopping to feed and rest during seasonal migration. Its international basin also is the most rapidly-growing area in both countries. Ninety percent of the border population resides in 14 paired, inter-dependent sister border cities, with

the annual growth rate in most large basin cities exceeding 3%. The lower Rio Bravo basin faces a predicted population increase of 175% between 2000 and 2050. There is significant agricultural activity on both sides of the border. The Mexican side of the border has experienced a proliferation of maguiladoras (product finishing plants) as a result of the North American Free Trade Agreement, which has stimulated migration from the Mexican interior to the border region. This migration has been accompanied by a significantly increased number of informal settlements (colonias), lacking basic water supply and sanitation facilities. Beause of such factors, the Rio Bravo is a river in serious disarray. Although a 1944 Treaty between Mexico and the USA controls water allocations in the international section of the Rio Bravo, the river's ability to support a formidable range of human physical, social, and economic needs, while also maintaining important ecosystems, is being overwhelmed. Excessive water abstractions (96% of the river's annual average flow is allocated) are exacerbated by additional factors such as water diversions, dams, high evaporation rates, recurring droughts, invasive species, sensitive biodiversity, agricultural and urban land use changes, and social dislocations. Because of its importance to both countries, and because it has been identified among the world's ten most endangered rivers by the World Wildlife Fund, the primary objective of this project is to develop and facilitate implementation of an integrated, ecosystem-based, binationally-agreed management plan to address the serious human and environmental problems confronting this sensitive transboundary river system, and to maximize its transboundary benefits to the inhabitants of both riparian countries. STATEMENT OF THE ISSUE: The need to share and utilize the water resources of the transboundary Rio Bravo in a sustainable manner is at the core of this project. It is directed to developing a comprehensive, participatory framework for coordinated management, focused on facilitating more efficient water use throughout the basin. The socioeconomic factors influencing the livelihoods of basin inhabitants, particularly the poor and underrepresented population, are integral to such goals, particularly in maximizing transboundary benefits. The natural heritage of the Rio Bravo basin also must be considered, being unmatched by any desert riverine system in the world. The basin contains many threatened and endangered species among its extensive biodiversity. More than 95% of the lower basin's native brushland has been converted to agricultural or urban use since the 1920s, with few undisturbed, natural communities remaining. Water development projects have seriously disrupted natural flow regimes, affected wetlands and aquatic fauna, and degraded native riparian plant communities. A further significant constraint to sustainable use of the Rio Bravo lies in the fact that both countries have treaty obligations to deliver specific quantities of water to each other at different locations in its basin, seriously complicating the holistic, integrated use of the river. A legal and institutional fragmentation of authority for water management also exists because the waters of the Rio Bravo are governed by a plethora of binational treaties, interstate compacts, reclamation projects, water rights, and contracts that are, in turn, implemented by a range of governmental agencies at international, national, State, and local levels. These institutions, and a large number of private organizations (e.g., irrigation districts), comprise a major grouping of different stakeholders that must be involved in transforming the current fragemented system into a more integrated decisionmaking process. Although part of the solution lies in better coordination of organizational activities on both sides of the border, this goal remains difficult and elusive. Lack of effective communication between water-user communities and other stakeholder groups also constrains sustainable use of the river. Taken together, these factors ensure a continuing piece-meal, and non-sustainable, approach to managing this important transboundary water system. ACTIONS TO **ADDRESS THE ISSUE:** Building on the existing legal framework between Mexico and the United States, this proposal outlines a 2-phased approach of diagnosis and action directed to developing a comprehensive, participatory framework for coordinated management of the Rio Bravo Basin. This approach is wholly consistent with the Transboundary Diagnostic Analysis (TDA) and Strategic Action Programme (SAP) formulation protocols of the GEF International Waters focal area. Given the large spatial extent of the problems of the Rio Bravo Basin, and the complex social dynamics of the basin population, achieving these project goals represents a significant, and both environmentally and socially beneficial contribution to managing this important transboundary water resource. **ENVIRONMENTAL BENEFITS:** A large portion of the Rio Bravo Basin is located within the 647,000 km<sup>2</sup> Chihuahuan Desert. And although the Chihuahuan Desert is an arid region, it is home to a spectacular array of freshwater species, as noted by the World Wildlife Fund. It is considered one of the most ecologically-diverse desert river systems in North America, and the most important arid ecoregion, by the World Wildlife Federation. The Rio Grande Basin possesses a range of important aquatic and terrestrial ecosystems, including mudflats, salt marshes, freshwater cienegas and riparian forests, with some species in these ecosystems found nowhere else in the world. Thus, developing and implementing a basin-wide management plan for sustainable use of the Rio Bravo will have global environmental benefits related to conservation of the basin's unique biodiversity, consistent with the goals of the Global Biodiversity Convention. There also are environmental benefits to be achieved by development and application in the Rio Bravo Basin of the comprehensive, ecosystem-based management approach inherent in

integrated water resources management (IWRM). IWRM is being promoted in many venues throughout the world, including the 2002 World Summit on Sustainable Development, as the most rational approach for addressing sustainable water use. Its application in the arid Rio Bravo Basin will provide additional insight and experience regarding its utility for managing water resources within a natural environment characterized by recurring droughts. Further, achieving more efficient water use will enhance the availability of scarce water resources to meet both human and ecosystem water needs throughout the basin. By enhancing economic benefits to basin inhabitants, developing and implementing an integrated water resources management programme also will work to alleviate the poverty characterizing much of the population residing along the common border, thereby also enhancing opportunities to protect and conserve the very resource, the Rio Bravo, that provides many of the benefits.

#### B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL PRIORITIES/PLANS:

Many national priorities and plans relevant to this project are encompassed within ongoing activities of the two riparian countries that focus on the Rio Bravo, and which are consistent with goals of the proposed integrated, ecosystem-based management program, as follows:

#### **INTERNATIONAL:**

- (A) Border 2012 Program: The 1983 Agreement on Cooperation for the Protection and Improvement of the Environment in the Border Area (La Paz Agreement) is the legal basis for this binational collaborative programme. With active participation of 10 Mexican and US border states, and US tribal governments, the US Environmental Protection Agency (EPA) and Mexico's Secretariat of Environment and Natural Resources (SEMARNAT), in partnership with the US Department of Health and Human Services (HHS), the Mexican Secretariat of Health (SS) and other federal agencies, the goal of the Border 2012 Program is to improve the environment and protect the health of people living along the common border, consistent with principles of sustainable development. The program focuses on cleaning the air, providing safe drinking water, reducing risks of exposure to hazardous waste, and ensuring emergency preparedness along the border region.
- (B) International Boundary and Water Commission (IBWC; the Mexican section of IBWC is called La Comisión Internacional de Límites y Aguas (CILA)): The IBWC is an international body responsible for applying the boundary and water treaties between Mexico and the US, and settling any differences that may arise in their application. Its mission is to apply the rights and obligations assumed by Mexico and the United States under numerous boundary and water treaties and related agreements in a way that benefits the social and economic welfare of the peoples on both sides of the boundary and improves relations between the two countries, including such issues as boundary demarcation, national ownership of waters, sanitation, water quality, and flood control in the border region.
- (C) Border Environment Cooperation Commission (BECC): The BECC is an international organization created by the Mexican and US Governments under side agreements to the North American Free Trade Agreement (NAFTA). BECC's mission is to help conserve, protect and enhance the environment in the Mexico-US border region, through developing and certifying environmental infrastructure projects incorporating innovative sustainability and public participation concepts. BECC's mandate addressses water pollution, wastewater treatment, and municipal solid waste management projects, including issues such as hazardous waste, water conservation, water and sewer system hookups, and waste reduction and recycling. Air quality, transportation, clean and efficient energy, and municipal planning and development projects (including water management) have subsequently been added to BECC's mandate.

#### **NATIONAL:**

#### **Mexico:**

- (A) Secretary of Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales, SEMARNAT): A department of the federal government's Executive branch, SEMARNAT is responsible for environmental protection policy to reverse ecological deterioration, and establishing the basis for sustainable development in Mexico.
- (B) National Water Commission (Comisión Nacional del Agua, **CNA**): The 1992 National Water Law, as revised in 2004, gives the federal government, through CNA, a department of SEMARNAT, responsibility for key water sector functions, with the chief mission of managing and preserving national water resources, with participation of society, to achieve sustainable use of these resources.

<u>United States:</u> 7

- (A) U.S. Environmental Protection Agency (**EPA**): The EPA was established in 1970 as a federal response to growing public demands for cleaner water, air and land. The concerns of EPA's Region 6 encompass the US portion of the Rio Bravo Basin, including facilitation of construction of wastewater and drinking water facilities for people living in unincorporated areas (colonias) along the US side of the border. The EPA also works with other Federal, State, and local agencies to help identify and solve border environmental problems.
- (B) Rio Grande Watershed Federal Coordinating Committee (**RGWFCC**): The RGWFCC is a consortium of 11 US federal agencies, including IBWC, National Park Service, EPA, Army Corps of Engineers, Bureau of Reclamataion, Department of Agriculture, Bureau of Indian Affairs, Bureau of Land Management, and National Weather Service. Its purpose is to facilitate familiarity of these agencies with each other's mission and ongoing projects related to watershed planning activities relevant to the Mexico-US border, and facilitate opportunities for interagency collaboration.

#### C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH GEF STRATEGIES AND STRATEGIC PROGRAMS:

In facilitating development of an integrated, ecosystem-based management approach for the transboundary Rio Bravo basin, this project is consistent with the IW Focal Area GEF-4 Strategic Objective 1 (SO-1) and its SP-3. As earlier noted, significant legal and institutional fragmentation of authority for water management in the basin is a significant constraint to equitable, sustainable use of the Rio Bravo. Water allocations are governed by numerous binational treaties, interstate compacts, reclamation projects, water rights and contracts, some inconsistent with sustainable water use in the basin. These various instruments are implemented by a bewildering range of international, national and state governmental agencies, and private organizations (most notably irrigation districts). The unique mandates and responsibilities of these various agencies and organizations ensures there is no integrated approach to managing and using the waters of the Rio Bravo. With water demands expected to increase with continuing population growth, and agricultural and industrialization activities, developing and implementing an integrated management approach, such as that embodied in Integrated Water Resources Management (IWRM), is a paramount need for sustainable future of this badly-stressed water system. An integrated approach is especially critical for addressing a core problem within the Rio Bravo basin, namely, multiple competing uses (and overuses) of limited water resources, both surface- and groundwater, by providing a mechanism for cooperation between Mexico and the US in identifying and addressing priority border water issues. With the existing piecemeal method of managing and allocating the waters of the Rio Bravo, an integrated approach is the only rational means of addressing the serious ecological and economic damage associated with overuse of this transboundary river, and of improving the livelihoods of basin inhabitants in this drought-prone region.

- D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES: The existence of several basin organizations that focus on specific Rio Bravo border issues (e.g., above-noted IBWC, BECC, Border 2012 Programs) will facilitate achievement of project goals. The proposed IWRM approach also will facilitate inter-linkages between sustainable water resources and biological diversity, two related issues within the context of addressing equitable, sustainable use of the scarce water resources of this transboundary river basin. The project also may aid in achieving an integrated coastal area-river management plan, potentially coupling it with the work embodied in the ongoing UNIDO-GEF Gulf of Mexico Large Marine Ecosystem project (GOF LME). In addition to consideration of freshwater-coastal area hydrological issues at the rivermouth relevant to the GOF LME, the Rio Bravo estuary is biologically productive in its own right, being home to an indigenous species of hypersaline-tolerant oysters (Crassostrea equestris). Fish species with tropical affinities reach their regular northern occurrence in the western Gulf of Mexico, including snook (Centropomis undecimalis) and tarpon (Tarpon atlanticus). The ecological health and integrity of this fragile estuary is extremely dependent on quantifiable target freshwater inflows from the Rio Bravo. Such interfaces could facilitate mutually-beneficial institutional mechanisms between the Rio Bravo project and the GOF LME, including formation of joint steering committees/working groups and complementary joint activities between the two projects.
- **E. DISCUSS THE VALUE-ADDED OF GEF INVOLVEMENT IN THE PROJECT DEMONSTRATED THROUGH INCREMENTAL REASONING: BASELINE:** Human activities, especially water abstractions from the Rio Bravo, have significantly affected its quantity and quality. With more than 96% of the average river flow already allocated by treaty and/or other agreements, the river is overallocated throughout its length, with serious implications for the basin's continuing socioeconomic development. Massive water diversions for agricultural irrigation, coupled with a continously-increasing basin population and industrialization, are increasing the basin population's vulnerability to water shortages, particularly under the recurring drought conditions characterizing this arid border region. The precarious nature of the basin's water resources was dramatically illustrated in February 2001 with blockage of the rivermouth

by a sand bar because of low-flow conditions from a severe drought in the lower Rio Bravo Basin since 1995. Dredged by the IBWC in 2001, the rivermouth was again closed with silt, remaining blocked until 2002, when higher tides and increased river flows partially opened it. As noted above, several other national and international initiatives also have attempted to mitigate the environmental and socioeconomic problems in the Rio Bravo basin (IBWC, Border 2012 Program, BECC). A range of NGOs (e.g., WWF; National Heritage Institute) also are involved in various basin studies. Academic institutions in both countries are engaged in, or have conducted, various studies on Rio Bravo issues, mostly hydrological in nature. State agencies in both countries address specific aspects of the quantity and/or quality of Rio Bravo waters. Many of these activities, however, are either sectorally-driven, or are being conducted in the absence of a common vision of how the river basin should be managed for sustainable use, both to meet human and ecosystem needs, thereby ensuring no comprehensive, long-term vision for this transboundary water system and thus represent uncoordinated activities that only marginally contribute to the sustainable use of the Rio Bravo. The baseline, or "business-as-usual" situation comprises indeed activities adopted by national, state, or local governments on a generally issue- or sectorally-based approach. Investments have been made in public health, irrigation facilities, water supply, and sanitation facilities to the benefit of those residing at or near the locations these facilities have been constructed. Environmental management interventions, however, continue to be undertaken by an array of governmental organizations on the international, state and local level in both countries, the nature of which is determined largely by local or regional priorities and demands, without regard to the overall benefit to the basin as a whole. INCREMENTAL REASONING: Thus, the proposed GEF intervention under the International Waters focal area provides an important and necessary linkage and context, both for ongoing and future activities, through development of a diagnosis (TDA) and management coordination framework (SAP) for the Rio Bravo Basin.

## F. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS, THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED, AND IF POSSIBLE INCLUDING RISK MEASURES THAT WILL BE TAKEN:

Risk	Rating	Overall risk mitigation measures
Geographic Fragmentation	Medium	The Rio Bravo can be hydrologically divided into an upstream segment, with the US being the riparian nation, and a downstream segment starting with the confluence of the Rio Conchos and Rio Bravo, with Mexico being the riparian nation. Both countries have treaty obligations to deliver specific quantities of water to each other at different basin locations, furthering complicating holistic, integrated use of the river. A focused emphasis on the holistic nature of the drainage basin, and need for an integrated management approach, accomplished via the project's IWRM-based approach, will reduce this risk, emphasizing the need for an action programme directed to the basin as a whole.
Legal and Institutional Fragmentation of Authority for Water Management	Medium	As previously noted, the waters of the Rio Bravo are governed by international treaties, interstate compacts, reclamation projects, water rights and contracts which are implemented by an equally broad range of governmental agencies and private organizations, which complicates achievement of integrated management goals. Because all these entities must be involved in transforming the current fragmented system into a more integrated decision making process, part of the solution lies in better coordination of activities between organizations on both sides of the border. Strong linkages between civil society, NGOs, professional organizations and governmental entities will minimize this risk.
Lack of Effective Communication between Water-user Communities and Other Stakeholder Groups	Medium	This problem significantly hinders achievement of an integrated approach to managing the Rio Bravo. Provision of stakeholder participation opportunities, combined with strong public awareness programs throughout the project's diagnostic and action phases will minimize this risk, including facilitating development of a common vision for managing and utilizing the river basin and its resources in a sustainable manner.
Insufficient Financial and Human Resource	Low	This issue represents a significant threat to any project of this scale. Changing priorities on the part of either riparian government also could jeopardize timely completion of the project. However,

Commitments by Riparian	considerable funds have already been spent on studies directed to
Countries	securing necessary information and data for the project's diagnostic
	phase, including academic institutions in both countries. One
	example is the Texas State University System, which has committed
	funds totaling more than US\$5 million for studies designed
	specifically to further the goals of a Rio Bravo TDA and SAP. BECC
	infrastructure activities also will continue in the border region, as will
	the activities of international, national and state government agencies.
	These continuing financial and human resource commitments
	highlight the commitment of Rio Bravo stakeholders to addressing
	problems of the Rio Bravo Basin over the long term.

- G. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT: A binational, regional approach to implementing integrated water resources management (IWRM) has been demonstrated to be a much more costeffective approach than undertaking actions on an individual or national basis. Dealing with IWRM at the basin level provides two-fold results in terms of cost effectiveness, optimizing both human and financial resources by: (1) considering the transboundary dimensions of issues to be addressed, and (2) tackling transboundary issues with the goal of yielding global benefits. This approach also maximizes cost effectiveness by avoiding "double counting." This can occur, for example, in implementing pollution abatement practices that meet minimum upstream requirements, but which may degrade downstream conditions, thereby requiring increased water treatment prior to its use in meeting other economic purposes. The IWRM approach to be adopted in this project overcomes the sectoral focus of traditional water resources management activities and actions, facilitating consideration of economic and ecologic outcomes in managing the basin as a sustainable resource. Water quality degradation also can restrict water availability for some economic purposes, inter alia, causing public health concerns, ecosystem changes and biodiversity losses. By developing specific management interventions in representative areas of the Rio Bravo Basin, however, appropriate measures can be replicated throughout the Basin, without further development costs. A particularly useful outcome will be design and refinement of these interventions within the framework of a needed common basin "vision," thereby facilitating joint strategic application of such interventions in a way that maximizes the economic and ecological benefits throughout the Basin.
- H. JUSTIFY THE COMPARATIVE ADVANTAGE OF GEF AGENCY: As the only United Nations organization whose mandate and core business is the environment, UNEP brings unique institutional and professional capacities to the work of the GEF, including: (1) a lead role in developing scientific and technical analysis; (2) advancing environmental management in GEF-financed activities; and (3) providing guidance in relating GEF-financed activities to global, regional, and national environmental assessments, policy frameworks and plans, and international environmental agreements. The proposed elements within this project also are consistent with the principles of the eecosytem approach inherent in the principles of UNEP's Water Strategy and IWRM Programmes, as well as the overall goals of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA). All these programmes promote integrated, multi-focal activities on land and water resources management. Further, UNEP has implemented basin-scale projects similar to the one being proposed for the Rio Bravo within the Americas, particularly the Latin American region, and has demonstrated considerable experience in identifying, assessing and addressing issues related to sustainable use of water resources and associated assessment and management issues on an international drainage basin scale. This proposed project for the Rio Bravo basin will benefit significantly from the cumulative experiences of these previous UNEP-implemented projects.

# PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the country endorsement letter(s) or regional endorsement letter(s) with this template).

MEXICO	Date: August 06, 2004
GRAYEB-BAYATA, Claudia	
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## **B. GEF AGENCY(IES) CERTIFICATION**

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation.				
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