



# GEF-6 PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project  
 TYPE OF TRUST FUND: GEF Trust Fund

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## PART I: PROJECT INFORMATION

Project Title:	Strengthening transboundary cooperation for improved ecosystem management and restoration in the Senegal delta (Mauritania and Senegal)		
Country(ies):	Mauritania, Senegal	GEF Project ID: <sup>1</sup>	9594
GEF Agency(ies):	IUCN (select) (select)	GEF Agency Project ID:	
Other Executing Partner(s):	Ministries on Environment and Sustainable Development in Mauritania and Senegal	Submission Date:	2016-07-25
GEF Focal Area(s):	(select)	Project Duration (Months)	36
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>	Corporate Program: SGP <input type="checkbox"/>	
Name of parent program:	[if applicable]	Agency Fee (\$)	275,491

## A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES<sup>2</sup>

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
IW-1 Program 1 (select) (select)	GEFTF	1,225,000	2,500,000
IW-2 Program 3 (select) (select)	GEFTF	611,009	4,400,000
IW-2 Program4 (select) (select)	GEFTF	1,225,000	950,000
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
<b>Total Project Cost</b>		<b>3,061,009</b>	<b>7,850,000</b>

## B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: Support improved governance, socio-economic development and ecosystem management in the Senegal Delta Trans-boundary Biosphere Reserve (SDTBR)						
Project Components	Financing Type <sup>3</sup>	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
1. Governance of the Senegal Delta Transboundary Biosphere Reserve (SDTBR)	TA	1.1. Governance structures and institutional planning processes established and functional.	1.1.1 The Vision, mandate, and legal framework are reviewed, and management bodies (Project Management Unit - UGT, Transboundary Steering Committee, national committees, the scientific and technical committees,	GEFTF	820,000	2,220,000

<sup>1</sup> Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.

<sup>2</sup> When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#) and [CBIT guidelines](#).

<sup>3</sup> Financing type can be either investment or technical assistance.

			<p>and the local socio-professional committees) are functional.</p> <p>1.1.2 The first comprehensive Management Plan of the SDTBR is produced and implementation is initiated.</p> <p>1.1.3 Transboundary coordination platforms (geographic and thematic) and stakeholder committees are functional.</p> <p>1.1.4 Public-private partnerships are developed for enhanced cooperation between SDTBR and key economic sectors, such as tourism and agriculture.</p> <p>1.1.5 The annual budget of the SDTBR secretariat is agreed and resources are available for the next 5 years (2017-2021).</p>			
		<p>1.2. A capacity building and training plan for key stakeholders is available to strengthen governance and future actions on the ground.</p>	<p>1.2.1 Capacity building programme designed and implemented to include training in e.g. erosion control, catchment resources (water, forest, and fisheries) management, protection of valuable flora and fauna, agroforestry for restoration, stakeholder dialogues, and on-the-job training of personnel.</p>			
		<p>1.3. Awareness raising and communications</p>	<p>1.3.1 Communication plan and « package » prepared to raise</p>			

			awareness on SDTBR Vision, objectives, management plan and programme of action. Regular contributions made to IW:LEARN.			
2. Integrated ecosystem-based management and restoration in the lower Senegal delta	Inv	<p>2.1. Critical ecosystems and key habitats are managed sustainably to protect water resources, forests and fisheries and enhance ecosystem services.</p> <p>2.2. Stakeholders and SDTBR management mechanisms mobilized to achieve improved natural resource use and demonstrate sustainable practices.</p>	<p>2.1.1 Key impacts and factors of change are documented and fed into the participatory SDTBR Technical (Research) Master Plan under guidance from the Scientific and Technical Commission (STC).</p> <p>2.1.2 Between 2 and 4 local plans for ecosystem restoration, adaptation, and support to livelihoods and biodiversity conservation are produced, negotiated and implemented.</p> <p>2.2.1 On-the-ground actions implemented for sustainable land, water resources and coastal/inland fisheries management.</p> <p>2.2.2 On-the-ground actions implemented to strengthen community engagement and resilience, with field advisers, women and youth trained in sustainable income-generating activities.</p>	GEFTF	1,865,000	5,000,000
3. Scientific cooperation, knowledge acquisition and sharing, and ecosystem monitoring and evaluation	Inv	<p>3.1. Scientific and technical cooperation is strengthened for enhanced data collection, processing and learning.</p> <p>3.2. The monitoring and</p>	<p>3.1.1 The transboundary network of data collection and processing delivers up-to-date analysis on ecosystems, flora and fauna, and allows SDTBS to monitor key conservation and development parameters.</p> <p>3.2.1 The project</p>	GEFTF	230,247	630,000

		evaluation system of the project is in place.	monitoring and evaluation plan is in place.				
	(select)		3.2.2 Mid-term and final project evaluation plan is in place.				
	(select)			(select)			
	(select)			(select)			
	(select)			(select)			
	(select)			(select)			
	(select)			(select)			
	(select)			(select)			
Subtotal						2,915,247	7,850,000
Project Management Cost (PMC) <sup>4</sup>				GEFTF		145,762	0
<b>Total Project Cost</b>						<b>3,061,009</b>	<b>7,850,000</b>

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust funds here: ( )

#### C. INDICATIVE SOURCES OF **CO-FINANCING** FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Recipient Government	Government of Senegal	In-kind	1,500,000
Recipient Government	Support to PAs in RBTDS (Senegal)	Grants	1,500,000
Recipient Government	Government of Mauritania	In-kind	1,500,000
Recipient Government	Support to PAs in RBTDS (Mauritania)	Grants	800,000
Donor Agency	EU - MAC Prog. (ECOTOUR project)	Grants	950,000
Donor Agency	MAVA Foundation (support to RBT in Senegal and Mauritania)	Grants	1,000,000
GEF Agency	IUCN (support to RBT in Senegal and Mauritania)	In-kind	600,000
<b>Total Co-financing</b>			<b>7,850,000</b>

#### D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES), FOCAL AREA AND THE PROGRAMMING OF FUNDS <sup>a)</sup>

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b) <sup>b)</sup>	Total (c)=a+b
IUCN	GEFTF	Mauritania	International Waters	(select as applicable)	1,530,505	137,746	1,668,251
IUCN	GEFTF	Senegal	International Waters	(select as applicable)	1,530,504	137,745	1,668,249
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
<b>Total GEF Resources</b>					<b>3,061,009</b>	<b>275,491</b>	<b>3,336,500</b>

a) Refer to the [Fee Policy for GEF Partner Agencies](#).

<sup>4</sup> For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

**E. PROJECT PREPARATION GRANT (PPG)<sup>5</sup>**

Is Project Preparation Grant requested? Yes  No  If no, skip item E.

**PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS**

Project Preparation Grant amount requested: \$150,000					PPG Agency Fee: 13,500		
GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee <sup>6</sup> (b)	Total c = a + b
IUCN	GEF TF	Mauritania	International Waters	(select as applicable)	75,000	6,750	81,750
IUCN	GEF TF	Senegal	International Waters	(select as applicable)	75,000	6,750	81,750
(select)	(select)		(select)	(select as applicable)			0
<b>Total PPG Amount</b>					<b>150,000</b>	<b>13,500</b>	<b>163,500</b>

<sup>5</sup> PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$50k for PF up to \$2m (for MSP); up to \$100k for PF up to \$3m; \$150k for PF up to \$6m; \$200k for PF up to \$10m; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

<sup>6</sup> PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

## F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS<sup>7</sup>

Provide the expected project targets as appropriate.

<b>Corporate Results</b>	<b>Replenishment Targets</b>	<b>Project Targets</b>
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	<i>Hectares</i>
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	<i>Hectares</i>
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	<i>One basin (Senegal River Basin)</i>
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	<i>Percent of fisheries, by volume</i>
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO <sub>2e</sub> mitigated (include both direct and indirect)	<i>metric tons</i>
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	<i>metric tons</i>
	Reduction of 1000 tons of Mercury	<i>metric tons</i>
	Phase-out of 303.44 tons of ODP (HCFC)	<i>ODP tons</i>
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	<i>Number of Countries:</i>
	Functional environmental information systems are established to support decision-making in at least 10 countries	<i>Number of Countries:</i>

## **PART II: PROJECT JUSTIFICATION**

1. *Project Description.* Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area<sup>8</sup> strategies, with a brief description of expected outcomes and components of the project, 4) [incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, CBIT and [co-financing](#); 5) [global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF); and 6) innovation, sustainability and potential for scaling up.

### **1) - The global environmental and/or adaptation problems, root causes and barriers that need to be addressed**

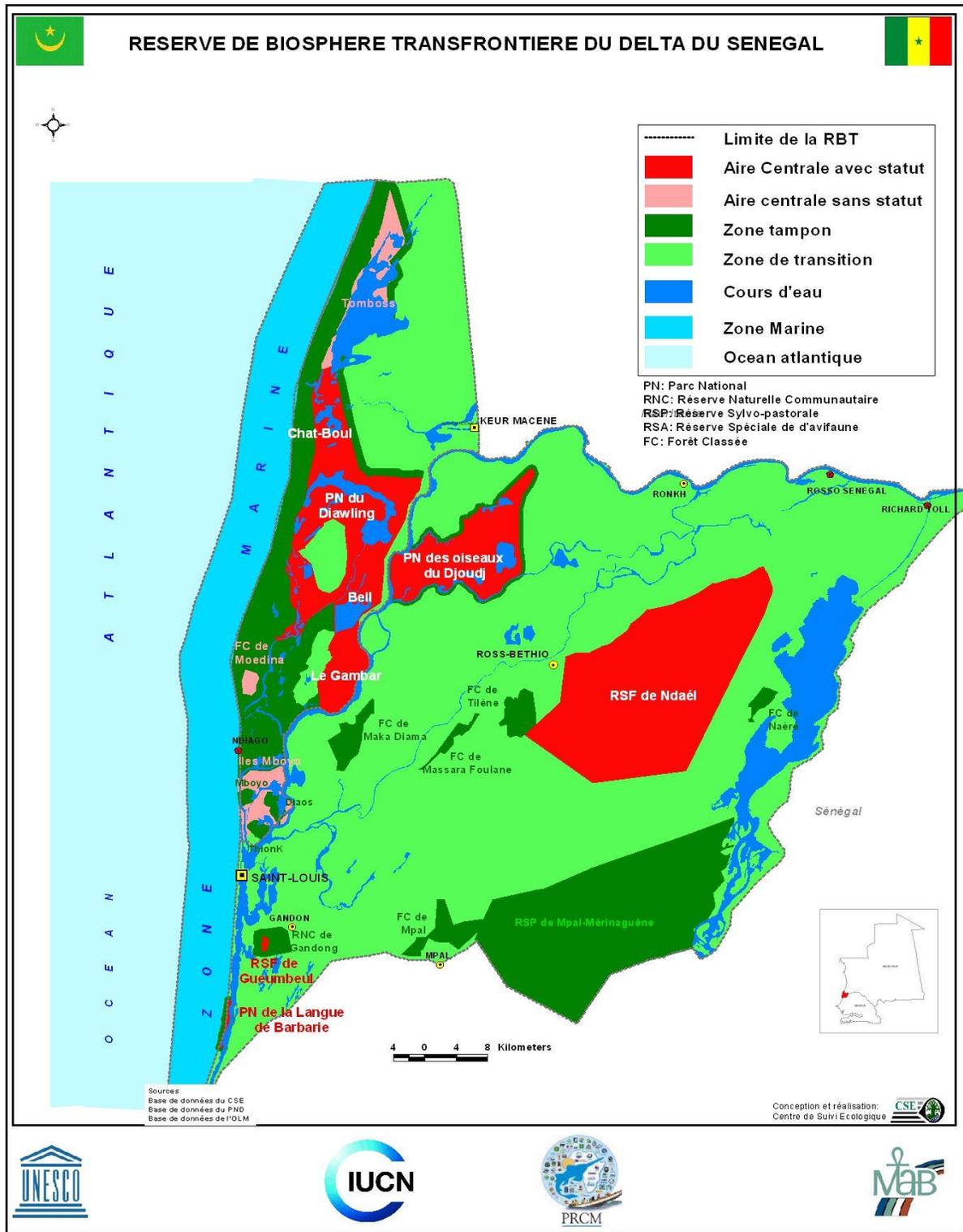
#### **1.1 Presentation of the Senegal River Delta, analysis of environmental, social and economic constraints**

The establishment of the Senegal Delta Transboundary Biosphere Reserve - SDTBR (Figure 1) is the result of a long history of cooperation between Senegal and Mauritania for the management of Djoudj National Park (Senegal), Diawling National Park (Mauritania) and all their surrounding ecosystems.

<sup>7</sup> Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF, SCCF or CBIT.

<sup>8</sup> For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.

Figure 1 – Map of the Senegal Delta Transboundary Biosphere Reserve



The many components that make up this vast complex of wetlands are highly interdependent and subject to threats and degradation processes, the fundamental causes of which are largely common to Mauritania and Senegal.

Hence, in 2005, the governments of Mauritania and Senegal, cognizant of the inextricable ecological and socioeconomic links among the parts of this complex, and of the fact that it functions as an ecological unit, stated their political commitment to the shared manage of this area rich in biodiversity and fraught with major development issues by creating the Senegal Delta Transboundary Biosphere Reserve (SDTBR).

The Biosphere Reserve is home to around 400,000 people who are primarily concentrated in urban areas, especially in the city of Saint-Louis, a UNESCO World Heritage Site. Other urban centres such as Richard Toll, Keur Macène and Ndiago account for the rest of the population. The Reserve covers a total surface area of 641,768 hectares, 562,470 hectares (90%) of which are in the continental zone and 79,298 hectares (10%) in the marine zone. These areas can be broken down as follows:

- Mauritania: 186,908 hectares (30% of the total) of which 127,914 hectares (70%) are in the continental zone and 58,994 hectares (30%) in the marine zone;
- Senegal: 454,860 hectares (70% of the total) of which 434,556 hectares (95%) are in the continental zone and 20,304 hectares (5%) in the marine zone;
- Around 25% of the Reserve's surface area is made up of protected areas of different categories (especially Wetlands of International Importance under the Ramsar Convention), including national parks, wildlife reserves, classified forests, marine protected areas, community nature reserves, etc.

In Senegal, the SDTBR encompasses Djoudj National Bird Sanctuary, Langue de Barbarie National Park, Gueumbeul Special Wildlife Reserve, Ndiel Special Wildlife Reserve, Saint-Louis Marine Protected Area, Gandon Community Nature Reserve and Tocc Tocc Nature Reserve, in addition to the classified forests of Mpal, Maka Diama, Tilelne, Massara Foulane and Néré and Lake Guiers.

In Mauritania, the SDTBR encompasses Diawling National Park, Chatt-Boul Reserve, the mangroves of the N'Thiallakh Basin, Moïdina Forest and M'Boyo Island, as well as a buffer zone made up of the Birette / Ziré dunes, the coastal dunes, and the right bank of the N'Thiallakh Basin.

In terms of biodiversity and ecosystems (marine, coastal, terrestrial and estuarine), the SDTBR is a highly representative sample of all the terrestrial and aquatic ecosystems found in both countries. Moreover, large numbers of migratory birds and a great many rare or threatened species of plants, mammals, reptiles and fish occur in the Reserve.

Diama (Senegal) and Manantali (Mali) dams were commissioned in 1986 and 1988 respectively by the Senegal River Basin Development Authority (Organisation pour la Mise en Valeur du fleuve Sénégal, OMVS - an interstate organisation established in 1972 for the purpose of jointly managing the waters of the Senegal River Basin – enabling the development of irrigated agriculture (mainly rice). Diama Dam is an anti-salt dam that makes water available for irrigation downstream, as well as for flooding lakes and depressions like Lake Guiers and Djoudj National Bird Sanctuary (Senegal), Lake R'kiz, Diawling National Park and the Aftout-es-Saheli Depression (Mauritania). This dam offers many other advantages (it prevents saltwater intrusion upstream, supplies sufficient fresh water all year round, and a large supply of water for irrigation, etc.) but also has several disadvantages, the most serious of which are perhaps the spread of water-borne diseases and the proliferation of aquatic plants such as *Typha domingensis*. These give rise to economic problems (impact on irrigation, fishing, navigation and stockbreeding), social problems (water security and water-borne diseases) and environmental problems (threats to classified protected areas).

The delta of the Senegal River plays a very important economic role in both countries. Cattle breeding is essentially based on a transhumant system in which the cattle graze on the wetlands during the dry season. Large numbers of small ruminants (sheep and goats) are also bred. Milk and other products of cattle breeding (meat and live animals) are not extensively marketed due to sociological and cultural resistance.

Sea fishing plays an essential role in the economies of both countries. Fishing is primarily centred in Saint-Louis, Ndiago and along the shores of the Reserve. Some of the products are sold at local and national markets, and some are exported to other countries in the sub-region, and even to destinations outside Africa. Senegal and Mauritania have agreements on the management of shared fisheries resources. Despite a sharp decline due to hydraulic infrastructures and overfishing, inland fisheries still occupy a significant place in the local economy, notably from a subsistence standpoint.

Salt harvesting is an activity found mainly south of Saint-Louis in the towns of Ndiebéne Gandiol and Gandon, and the production is marketed in Saint Louis and nearby locations.

In both countries, traditional crafts rely on aquatic plants (*Typha domingensis*, *Sporobolus robustus* and *Phragmites australis*) from local wetlands, as well as the skins of ruminants, to make mats, bags and other objects to be sold in craft centres or nearby hotels.

Several assessments of the economic value of resources in the mosaic of biotopes (intermixed arid land areas, sand dunes, degraded floodplain depressions, restored freshwater and brackish wetlands) characteristic of most of the project area have been conducted, but they focused mainly on areas under intensive restoration management, i.e. mostly in and around protected areas. In Mauritania, the areas surveyed cover most of the Biosphere Reserve, while in Senegal the area surveyed includes Djoudj National Park and surrounding areas. On both sides of the river/border, several projects (supported by grants by e.g. the Dutch, French, German Development Cooperation) aimed at restoring floodplain wetlands and their biodiversity, as well as traditional resource use systems, have been active as far back as the early 1990s.

On the Mauritanian side (187,000 hectares), data from 2004-2012 provide some insight into the value of traditional production, including market gardening (onions, turnips, red beets at 1,234 tons/year), fisheries (fish and shrimp at 225 tons/year) for a total of USD 1.1 million/year, while animal production (260,000 goats, sheep, cattle and camels) yield USD 2.4 million/year. This provides estimates of potential yields (approx. 20 USD/hectare/year) in areas subject to relatively intensive ecosystem planning and restoration management, with significant stakeholder engagement.

On the Senegalese side, given the large surface area (455,000 hectares) involved, the presence of a much larger proportion of degraded “*pastoral*” lands, and the fact that a smaller portion of the area is subject to restoration efforts, providing estimates with the same degree of accuracy is much less easy. The value of traditional production is probably in excess of USD 8.0 million/year (approx. 17 USD/hectare/year).

However, tourism in the Biosphere Reserve represents tremendous potential, e.g. a large number of protected areas (and Ramsar sites) harbouring spectacular biodiversity, attractive historical heritage (Saint-Louis is a UNESCO World Heritage Site), white sandy beaches, navigable water bodies, hospitable local people, etc. The sector brings a great deal of income (in excess of USD 25 million/year drawn from 75,000 tourists/year at USD 350/day) into the area, although the development of tourism is encountering some difficulties, such as the poor condition of some facilities, problems in organising new touristic circuits, and lack of investment.

Past conservation and management actions applied to areas that have been heavily degraded by the development of massive water infrastructures have demonstrated great potential to restore ecosystems, support livelihoods and offer opportunities for sustainable development.

The Biosphere Reserve is strongly influenced by the hydraulic infrastructures built by OMVS, but the equipment (dams, gates, canals) installed in the 1980s allows water to inundate flood-prone areas at the appropriate time of year, thereby ensuring primary production on which animals and humans are highly dependent. For the inhabitants and their activities, it is the hydraulic functioning of the system which determines opportunities for agriculture,

horticulture, stockbreeding and fishing. Over the past few decades, water allocations have been progressively adapted to meet the requirements of ecosystems managed for people and wildlife.

By mobilising a large number of stakeholders (government institutions, international and national NGOs, technical and financial partners, communities, local groups), the Transboundary Biosphere Reserve has become an important tool for sustainable development, combining the conservation and restoration of ecosystems with social and economic development. It is also seen as a platform for dialogue and conflict resolution (i.e. conflicts over water use or non-regulated resource use), and sociocultural events, fairs and markets are organised regularly under the aegis of the Biosphere Reserve to strengthen the relationships between stakeholders on both sides of the border.

The Reserve is a reality recognised at the highest political levels in both countries. It is a tool for cooperation between the two States in a border area which, thirty years ago, was the site of serious tensions that could have led to international conflict. The decision of the both countries' authorities to jointly manage a shared delta is without doubt the most important result of their "*Biosphere Reserve*" project. This cooperation dynamic was recently (February 2016) further strengthened by the signature of a Memorandum of Understanding between the two Ministries of the Environment on the reintroduction of plant and animal species.

The establishment of joint governance bodies and processes, which have operated mainly thanks to support from IUCN, and a consensus on the participatory approach to the Reserve's management to ensure effective sharing of management responsibilities by all stakeholders, now make it worthwhile to invest more extensively into the functioning of the Reserve and its objectives (natural resource conservation, socioeconomic development, support to scientific and technical research).

### **Main issues and constraints affecting the management of the Biosphere Reserve**

*This section is based on several consultations with stakeholders during numerous meetings organised between 2005-2011 to discuss a possible shared governance system for the SDTBR. A final consultation with stakeholders from both countries took place in May 2016 in Dakar, Senegal.*

#### **Competition over natural resources**

These resources are multiple and not specific to the Biosphere Reserve, but being transboundary in nature they nonetheless require the attention of the Reserve's authorities. The issue of the transhumance of herds of cattle, which generates conflicts between farmers and livestock owners, is not an easy conflict to manage because the development of agriculture has taken on unprecedented proportions, accompanied by sharp development of agribusiness and increased water control.

Both countries have a number of shared fish stocks (mullet, meagre and bluefish) which are subject to transboundary development plans. Intensive artisanal fishing occurs in the Senegalese part of the SDTBR, while the Mauritanian part is still relatively well-preserved. This has resulted in the migration of significant numbers of Senegalese fishermen to the Mauritanian coast. It is therefore essential to strengthen cooperation between the two countries in order to achieve more sustainable use of these resources.

#### **Water management issues**

The allocation of water resources to the various types of ecosystems and users in the Senegal delta is a very important, but also a very sensitive decision in land use management. Ecosystem management and biodiversity conservation have not been a priority for OMVS for many years. Water management has always been practised in a way that benefits irrigated agriculture and human consumption, although the OMVS Charter (2002) recognises the need to preserve and protect the environment. This makes it essential to work with OMVS to ensure there will be less competition and a better balance between socioeconomic and ecological imperatives, as imbalance can lead to river bank erosion and silting, degradation of fish fauna, and changes in the availability of surface water.

### **Invasive species**

Another challenge for biodiversity conservation and the development of economic activities in the SDTBR is the massive presence of invasive aquatic species (especially cattails *Typha domingensis*). This proliferation is due to the hydraulic works which changed both the water regime (towards more perennial water courses) and the quality of the river water. The presence of *Typha* threatens the Reserve's ecological identity and many productive activities (agriculture, fishing and stockbreeding).

### **Weak governance**

An important constraint to the functioning of the SDTBR's governance bodies is the lack of progress made in empowering the Reserve. There is a clear lack of involvement of communities/civil society in the governance bodies, whilst key players, in particular OMVS with its associated technical departments and structures, rice farmers and agribusiness, and the urban centres (especially Saint-Louis and Ndiago) have as yet not joined the participatory management process. Finally, the governance bodies are unwieldy, and several of their members, who have other duties, do not have enough time to devote to the Reserve.

### **Legislation and associated texts**

The large number of legislative texts and their lack of harmonisation is an issue at both the national and transboundary levels and efforts must be made to harmonise them. The reclassification of protected areas and the encroachment of agribusiness on the protected core areas are issues that should not arise given the status of UNESCO Biosphere Reserve and the joint commitment made by the two countries. As a result, the central areas with the highest biological potential are subject to excessive illegal exploitation of natural resources, and also suffer the consequences of long years of drought and hydro-agricultural infrastructures. All these phenomena have led to the loss of habitats and biodiversity. It is thus necessary to review, harmonise and enforce legislative and associated texts.

### **Financial sustainability**

The Reserve authorities' intrinsic capacity to mobilise funds is very limited. The mobilisation of funds is chiefly taken on by the Reserve's technical partners, such as IUCN, in the absence of a real strategic action plan for fundraising.

These (6) key issues and constraints will be duly taken into account in the alternative scenario, for example governance, legal and financial issues will be dealt with under e.g. component 1, outputs 1.1.1/1.1.2/1.1.4/1.1.5, while water management issues will be addressed under e.g. component 1 (1.1.2) and component 2 (output 2.1.1), with resource use and ecosystem management issues being the main topics under most project outputs.

### **Conclusion**

Management actions targeting degraded areas have demonstrated high potential for restoring ecosystems, supporting livelihoods and sustaining the links between the rural and urban economies. The growth and sustainability of the city of Saint-Louis relies on its immediate hinterland and the effectiveness of the Biosphere Reserve to provide economic opportunities.

However, despite the progress made since the creation of the SDTBR in 2005, the Biosphere Reserve classification has not proved sufficient to guarantee fully effective natural resource management, especially with regard to pastoralism and fisheries issues, the spread of invasive species, etc.

In terms of governance, progress has been made and partnerships (especially with OMVS and the City of Saint-Louis) have been discussed, but more vigorous action is required to improve resilience and foster economic and social development. The mandate of the Biosphere Reserve includes political cooperation, mitigation and resolution of resource use conflicts, restoration of ecosystems and support towards socioeconomic well-being. The IUCN/GEF project is designed to strengthen this mandate, achieve improved ecosystem management and restoration in order to enhance benefits for local communities, and further strengthen cooperation among key stakeholders, such as OMVS, the urban centres and the private sector.

## 2) - The baseline scenario or any associated baseline projects

In the recent past, the Biosphere Reserve (and vicinity) has been the theatre of several conservation and development projects, which will serve as the baseline scenario for the GEF/IUCN project. The most noteworthy initiatives (most of which are now completed) are the following:

- Support Project for the Senegal Delta Biosphere Reserve (phase 1: 2004-2008, and phase 2: 2008-2012, total budget: EUR 1.1 million), carried out by IUCN and financed by the MAVVA Foundation (Switzerland) and DGIS (Netherlands). Achievements: listing the lower delta as a Biosphere Reserve; establishment of the Transnational Steering Committee (CTO); development of ecological monitoring; development of ecotourism; activities such as the “*SDTBR Conference and Fair*”, to enable ministries, local stakeholders and technical and financial partners to understand and convey SDTBR’s Vision.
- The Natural Resources Management Programme (2011-2017, EUR 10.4 million) carried out by GIZ and financed by KfW). Achievements: establishment of the SDTBR Environmental Observatory; creation of inter-professional associations; monitoring of fishing activities in SDTBR’s marine and coastal zone.
- A number of major initiatives supporting OMVS’ mandate, through the PGIRE-1 project and GIRE, supported by AfDB, IDA, AFD, GEF; budget over USD 110 million), with components on the use of multi-purpose water strategies, support for rural communities, and biodiversity conservation. Achievements include: production of the Master Plan for Water Development and Management (SDAGE); collection and analysis of indicators on environmental trends; strengthening of partner networks of the SDTBR Observatory and the OMVS.
- Several projects to support agriculture (financed by AFD, FFEM, FED, GRET and GEF, with a consolidated budget of EUR 39 million). Achievements include: investment in irrigation infrastructure and forest management supporting the Great Green Wall; agricultural intensification and rice productivity gains; support to small-scale family farming, medium-scale farming on 10-30 hectare areas, and large-scale farming; development of new artisanal and industrial technologies using *Typha domingensis* as an alternative to charcoal.

In addition to taking stock of the above, the IUCN/GEF project will build on the work of the forthcoming projects:

The MAVVA Foundation is actively engaged in coastal management and conservation in West Africa. For the period 2017-2022, MAVVA’s investment will total USD 11.6 million, of which USD 1.0 million will go to activities taking place in SDTBR. As co-financing to the IUCN/GEF project, MAVVA’s investment will be used to:

- Strengthen management of key protected areas within the Biosphere Reserve to ensure sustainable land and seascape resource uses, with emphasis on:
  - Habitat restoration, development of co-managed areas, development of livelihood alternatives through promotion of existing production and marketing streams;
  - Capacity building of local communities and the public, education and awareness;
  - Policy and advocacy on land use and biodiversity management.
- Strengthen management of key sites of critical importance for small pelagic fish stocks, with improved data collection, development of marine protected area plans incorporating pelagic fisheries, capacity building of fishing communities in critical coastal sites, and improved enforcement of regulations in sites of critical importance for small pelagic fish.

The above activities will contribute mainly to component 2 of the IUCN/GEF project, which addresses sustainable management of key habitats and resources, with clear benefits in terms of well-being.

The ECOTOUR project (entitled: “*Valuing Natural Resources for Tourism*”) is implemented by CETECIMA (Technological Center for Marine Sciences, Spain) with funding from the European Fund for Regional Development - INTERREG. The project will be active in the Biosphere Reserve, and address the need to upgrade nature tourism in the lower Senegal delta. This is directly related to the IUCN/GEF project since it will address the

Reserve's management plan and the need to establish public/private partnerships on (eco)tourism, a key economic sector for the city of Saint-Louis.

ECOTOUR is built around a number of strategic outputs, which include the following:

- Inventories of natural and cultural areas (“hot spots”) with touristic potential. Assessments of infrastructure and services available for tourists; identification of tour options and potential companies;
- Production of (eco)tourism plans, including assessments of risks in terms of water quality, with feasibility studies, and an economic analysis of possible (eco)products;
- Support development of sustainable practices to increase tourism potential, in existing protected areas and in areas with good restoration potential.
- Dissemination of lessons and best practices in coastal tourism development, including the development of training programmes and an on-line training platform.

The IUCN/GEF project will ensure that the strategic outputs of ECOTOUR contribute to plans coordinated by the Biosphere Reserve under Components 1 and 2 of the project. Increased knowledge on current and future (eco)tourism will provide public and private partners with more options to enhance sustainable benefits to communities and conserve biodiversity.

A special partnership will be established with the Senegal Sustainable Cities Initiative implemented by the World Bank and UNIDO (GEF contribution: USD 8.7 million; cofinancing: USD 52 million): cooperation between this initiative and the IUCN/GEF project will be essential, given that both projects are aimed at strengthening integrated planning and investments to achieve environmental, social and economic benefits at the local level. The World Bank sub-project focuses on the city of Saint-Louis, with outcomes aimed at improving urban planning and management, identifying priority projects for investment and training and capacity building.

### **3) - The proposed alternative scenario, GEF focal area strategies, and a brief description of the expected outcomes and components of the project**

*This section is based on the final strategic planning workshop with 50+ participants from both countries, which took place in May 2016 in Dakar, Senegal. Additional meetings with OMVS and the cities of Saint-Louis and Ndiago took place in November and December 2016.*

Without the changes proposed by this project, the Senegal Delta Transboundary Biosphere Reserve would suffer the continued degradation of its natural resources and its environment, as described under 1.above. In this respect, it is regrettable that transboundary coordination between the two countries with regard to managing the SDTBR still lacks vision and energy.

Therefore, the main objective of the project is to facilitate the adoption and implementation of a joint programme to strengthen governance of the Biosphere Reserve and achieve improved ecosystem management and restoration to enhance benefits for local communities and biodiversity.

The project will also strengthen cooperation among key stakeholders, starting with OMVS, the cities of Saint-Louis and Ndiago, private sector operators etc., and participatory management planning will strengthen local communities' control over, and use of, natural resources. The project will also increase scientific understanding of deltaic ecosystems in a way that will ultimately lead to improved water and natural resources management for all concerned. At the end of the project, the management of the Biosphere Reserve will play a central role in cooperation, synergies and innovation.

To best address the 6 main issues and constraints highlighted under section 1, the project will build on the following (4) main characteristics, as designed in cooperation with the stakeholders (OMVS, cities of Saint-Louis and Ndiago, relevant ministries in both countries, and community groups) consulted:

## **Implementation of a shared governance system** (as approved by all stakeholders in 2010-2015)

The shared governance system will engage all the SDTBR's stakeholders (government authorities, universities, various experts, civil society and NGOs), as decided in 2010. This decision was subsequently reaffirmed in 2015. The SDTBR's shared governance system fosters the conservation and adaptive management of transboundary ecosystems and sustainable regional development, to the benefit of the Reserve's inhabitants.

Divided into three areas or "*management units*", the consensus within the SDTBR will be based on the organisation of forums and workshops that will contribute to dialogue, identify problems and opportunities, and generate consensual agreements on specific initiatives. The Scientific and Technical Council will take part in synthesizing proposals, allowing a consensus to be reached on the respective priorities of the management units, which in the final step will be validated by a Transnational Steering Committee (Comité Transnational d'Orientation - CTO).

The expected impact of this system is both ecological and socioeconomic and will contribute to the best management of the SDTBR's environment (biodiversity conservation and restoration, economic productivity and ecosystem resilience), and also to better governance (commitment of stakeholders, transparency, accountability, equity, vision, performance, and respect for human rights).

Expected benefits of the SDTBR's shared governance system:

- The shared governance system will foster the effective sharing of management responsibilities by all stakeholders (this means that time pressure on government managers will be reduced);
- Specific elements of the management plans and complementary agreements will be negotiated to directly benefit of local communities and the most vulnerable social strata;
- Alliances between institutional stakeholders and civil society will prevent resources from being used by non-local interests (that often represent the main threat to conservation);
- The management capacity of all stakeholders involved will be improved through dialogue, sharing of experiences and learning through joint action;
- Conflicts over use and exploitation of resources will be limited and the transboundary coordination of the management of shared resources will be strengthened;
- Stakeholders' confidence in investments and the long-term outlook will be improved due to the perception of security and stability of policies, priorities and improved management rules;
- The local society will progressively become more aware of the linkages between the environment, lifestyle, the economy and culture, and of the importance of biodiversity and ecosystem services.

## **Cooperation with OMVS (Organisation pour la Mise en Valeur du fleuve Sénégal)**

The Senegal River Basin Development Authority (Organisation pour la Mise en Valeur du fleuve Sénégal, OMVS) is a basin organisation that was created in 1972 to implement an integrated, consensus-based programme on water resources and ecosystems to achieve the sustainable development of the basin. The River Senegal Water Charter (2002) stresses the need for sustainable development of ecosystems, communities, and natural habitats in the Senegal River Delta, based on the precautionary principle. This requires reconciling sometimes contradictory sectoral interests in hydroelectricity, irrigated farming, drinking water development and sanitation, rural development, and nature and ecosystem conservation, based on knowledge of the water resources in the basin and the ecosystems that depend on them.

In general, the ecological functions of wetlands and other biotopes in the delta depend on OMVS's ability to manage the competition for water satisfactorily, to take into account the ecosystem goods and services produced by the natural ecosystems, to make flood-recession crops, fishing, stockbreeding and food gathering possible, as all of these are of great importance for local economies.

Moreover, thirty years after it was commissioned, Diama Reservoir has become a central element in the Senegal River Delta's landscape. Its negative impacts on the delta ecosystem are acknowledged and taken into account in the Senegal River's development and basin management plans. The positive role that this reservoir plays, or could play, with regard to the environment has, however, been overlooked. The key issue for the future is how to integrate the Diama Reservoir and other artificial water bodies (such as the large irrigation water drainage projects either completed or currently being planned), into the work aimed at protecting and sustainably managing biological diversity.

The existence of these artificial water bodies, as well as the many protected areas and labelled sites at national and international level (reserves and national parks, marine protected areas, Ramsar sites, Biosphere Reserve, etc.) justifies the OMVS's statement that the Senegal River Delta is an "*area of special ecological importance*". The management plan of the SDTBR should be revised to take the artificial water bodies into account, thus providing the ideal framework for the establishment of the special ecological zone of the Delta.

With a view to addressing issues more effectively, the IUCN/GEF project will therefore promote the implementation of measures recommended in the OMVS Strategic Action Plan (2008 - latest revision, December 2016), which offer OMVS and SDTBR the opportunity to form an exceptional partnership for the environment and local development. The partnership will address the Long-term Objectives for Environmental Quality #5 (OLTQE5), which include the following activities:

- Invest in biodiversity assessments and biodiversity hotspot mapping (action 2);
- Monitor, control and manage fishing activities (action 3);
- Support wetland inventories and management planning, with a focus on environmental flows and artificial flooding schemes (action 4);
- Initiate discussions with international and local environmental institutions, as well as with technical and financial partners, to agree on actions needed for sustainable management of the Transboundary Biosphere Reserve, including a roadmap, a budget and a fundraising plan (action 5).

The participation of OMVS (represented by the Directorate of the Environment and Sustainable Development [Direction de l'Environnement et du Développement Durable, DEDD], or the Diama Dam Management and Exploitation Company [Société de Gestion et d'Exploitation du barrage de Diama, SOGED]) in the work of the SDTBR bodies (for example the Transnational Steering Committee), as well as cooperation in data collection and analysis, will form the main elements in a "*win-win*" partnership for the improved management of delta ecosystems. In support of this forthcoming partnership, OMVS has signed a Letter of Support to the IUCN/GEF project (attached).

### **Working with urban centres (Saint-Louis & Ndiago)**

The city of Saint-Louis (a UNESCO World Heritage site also designated on the national list of historic sites and monuments) and the town of Ndiago are located within the SDTBR. These urban centres account for over 70% of the human population in the lower delta. A substantial share of trade and income in the major sectors (agriculture, fishing, tourism, etc.) is concentrated in Saint-Louis and Ndiago, and their contributions to the functioning of the SDTBR are potentially important.

With industrial development (especially in Saint-Louis) expanding towards the hinterland, and increasing pressure on areas used for intensive and extensive agriculture, as well as on areas set aside for nature and tourism, it will be important to coordinate production of the (WB/GEF) Urban Master Plan of Saint-Louis (GEF Sustainable Cities Initiative) with the (IUCN/GEF) Management Plan of the Biosphere Reserve. This will mean giving proper consideration to e.g. protecting wetlands from destruction and water degradation and pollution leading to ecosystem and biodiversity loss.

Public-private partnership projects will be based on a diagnostic analysis of the urban catchment and climate-sensitive areas in the city's hinterland. Projects may be targeted at communities living in sensitive wetlands close to the city in order to avoid damage by potential future settlements, or at communities supporting the development of new touristic circuits and products. The two Master/Management Plans will provide platforms for knowledge and lessons sharing, capacity building and training, in order to promote innovation through exchange and collaboration.

IUCN has undertaken discussions with the cities of Saint-Louis and Ndiago, and their Mayors have signed Letters of Support to the IUCN/GEF project (attached).

### **Sustainable development and poverty reduction**

Various initiatives to reduce poverty, with ambitious programmes and substantial budgets, are underway in the lower delta. To avoid duplication of efforts, the IUCN/GEF project will focus on consolidating existing activities. Revenue-generating actions will be identified, as well as actions in areas other than those mentioned below. They will benefit from support for the preparation of dossiers and projects to be presented to potential sources of funding that the Project (Transboundary) Management Unit (Unité Transfrontière de Gestion du Projet, UGT) should help identify:

- The development of market gardening also gives rise to great demand from populations, in particular the demand for microcredits (the project will rely on local NGOs with expertise in microcredit schemes).
- Issues related to the supply of drinking water, strongly associated with water-borne diseases (one of OMVS's major concerns), cannot be ignored.
- In the field of crafts, support actions will continue to be pursued in protected areas through microcredits granted to craft cooperatives. Support provided to craft sectors will target the marketing outlets and circuits outside the area, particularly in urban centres.
- With regard to fishing, the focus will be on promoting the increase of the added value of fish through improved artisanal processing. In order to optimise profits and make up for the stakeholders' lack of technical capacity, the project could organise training modules in processing and development techniques, and support stakeholders with priority actions such as: developing local processing methods, improving the sanitary and commercial quality of fishery products, and improving the sanitary conditions for processing staff (especially women).
- Tourism development in the delta entails a market analysis, diversification of products, and strengthening and networking of operators in the tourism sector. Local, cultural, built, historical, traditional and above all natural heritages will be developed and promoted. Village guides and nature tour guides will be trained. Transboundary tourism will be strongly encouraged.

Therefore, adoption of an alternative scenario for this GEF project entails support for the following components:

### **Component 1. Governance of the Senegal Delta Transboundary Biosphere Reserve**

#### **Rationale**

The objective of this component is to: 1)- make all the governance bodies of the Reserve operational, 2)- give the Reserve the means to produce strategy documents, action plans, prospective analyses, 3)- form operational partnerships, 4)- progress toward the medium-term empowerment and autonomy of the SDTBR's structure and programmes, and finally 5)- set up a training, communication and awareness-raising programme.

#### **Outcome 1.1: Governance structures and institutional planning processes established and functional.**

*Output 1.1.1 - The Vision, mandate, and legal framework are reviewed, and management bodies are functional.*

The SDTBR's Vision, mandate and management bodies will be reviewed and enhanced. In order to achieve this, policies and legislation will be reviewed in order to clarify the legal framework in which the SDTBR will operate. The texts must be harmonised, adapting them to the legislative context in the two countries. It is important to clarify

the mandates of certain territorial bodies, in particular certain reserves whose surface areas have been suddenly reduced so as to benefit agribusiness. The harmonised texts will allow the SDTBR to develop a strong technical and legal identity.

The responsibility for the SDTBR project will lie with the Ministries of the Environment and Sustainable Development of Mauritania and Senegal, with support from IUCN. The project will strengthen the Senegal Delta Transboundary Biosphere Reserve's management bodies and processes already in place, most importantly:

- **A Transnational Steering Committee** (Comité Transnational d'Orientation, CTO), created in 2009, with representatives of ministries, local politicians, NGOs and scientific and technical institutions. **This committee will be supported by:**
- **A Scientific and Technical Commission** (Commission Scientifique et Technique, CST), created in 2011 as an advisory body to provide advice on research, validate the Delta of the River Senegal Transboundary Biosphere Reserve's management plan (Delta Charter [“*Charte du Delta*”] and its annexes), and oversee the consistency of research activities. The commission brings together the universities of Saint-Louis and Nouakchott, as well as sectoral research organisations. It also collects data and disseminates knowledge.
- **Two National Committees** (including representatives of protected areas, NGOs and representatives of the ministerial departments involved) and operational focal points, created in 2005. The National Committees will oversee implementation of local management plans and on-the-ground conservation and development activities, in order to ensure that they deliver the intended benefits. National Committees will also advise on opportunities to scale up on-the-ground activities elsewhere in the SDTBR.
- **One Transboundary Management Unit** (Unité de Gestion Transfrontière, UGT), which serves as the permanent secretariat of the Steering Committee and is responsible for:
  - The execution of the project, including the preparation of annual budgets and work plans;
  - The mobilisation of means and the capacities to carry out actions;
  - The monitoring assessment and capitalisation of the Delta of the River Senegal Transboundary Biosphere Reserve's support project;
  - Quarterly and annual reporting to the Steering Committee.

The UGT will serve as the Project Management Unit (Unité de Gestion du Projet - UGP) and a Project Steering Committee will be set up. The latter will be comprised of representatives of the different ministries and partners involved in the project area.

The UGP will execute the project and will be responsible for all three of its components. For the management of financial aspects and the use of environmental and social standards, the IUCN Manual of Procedures will be used.

The institutional arrangements for the entire steering and management structure of the project (including, as appropriate, the establishment of local socio-professional committees) will be defined in greater detail (location, membership, roles and responsibilities) during the preparatory phase of the final project document.

*Output 1.1.2 - The Management Plan for the SDTBR is produced and implementation is initiated.*

The Project (Transboundary) Management Unit (Unité Transfrontière de Gestion du Projet, UGT) and the various committees in charge of implementing shared governance will be operational (and tested) to enable the production of the SDTBR's strategies and programmes. The first (real) Reserve Management Plan will be produced for immediate implementation and, at the same time, plans for the management of SDTBR core areas will be revised.

This exercise will make it possible to define the system, and to identify the variables and drivers of change. Aspects related to climate change must be taken into account. Dominant trends, and risks of collapse and uncertainty will be

highlighted in order to define a limited number of the most likely scenarios. This initial analysis will be disclosed to decision-makers and disseminated to the general public.

This significant planning effort will also make it possible to prescribe complementary studies to define the management methodologies in the areas where they are not clearly defined. Local coordination committees (or socio-professional committees) will provide a forum for stakeholders to agree on arrangements regarding conflicts of use identified in various areas and resources. This is critically important for the execution of Component 2 of the project.

The SDTBR will work closely with the OMVS and its various departments with a view to adopting a common strategy taking into account the OMVS's Transboundary Diagnostic Analysis and the Strategic Action Plan, in their 2016 versions. Discussions can be held on the medium and long-term impacts of hydrographic modification in the lower delta, including changes to the river estuary and the status (and use) of groundwater resources, the phenomena of salinisation, issues linked to overgrazing, etc.

*Output 1.1.3 - Transboundary coordination platforms and committees are functional.*

The project will attach a great deal of importance to promoting all activities that require transboundary coordination. In order to do this, a number of transnational thematic or geographical components will be defined in fields such as wetland restoration, pastoralism and fisheries, invasive plants, groundwater, sustainable tourism and staff training. The development of these aspects (a minimum of three components) will be assigned to task forces/committees made up of network experts and stakeholders, whose mandate will be to seek and obtain a rapid consensus on the actions to be implemented in terms of sustainable use, restoration and conservation. It will be important for women to be represented in these task forces to ensure that women are involved in decision-making.

Cooperation agreements will be discussed with urban centres, primarily the towns of Saint-Louis and Ndiago that are set within the Reserve.

*Output 1.1.4 - Public-private partnerships are developed.*

The project will study the development of several public-private partnerships (PPPs), focusing on important economic sectors such as agriculture (with the Compagnie Sucrière Sénégalaise, Senhuile, Laiteries du Berger among others) and/or travel agencies with established high potential that are interested in adopting practices which promote sustainability. At least two (possibly three) partnerships of this type will be negotiated during the first year of the project.

The PPPs should aim at leveraging clear financial benefits for the SDTBR itself and/or the communities involved. A meeting in December 2016 between the Saint-Louis City Council, the regional Tourism Board, the local Tourism Information Office, the National Parks Service and several travel agencies suggested that the current ecotourism offering should be reviewed in order to 1)- upgrade the circuits on offer, 2)- define new routes that include the many natural, man-made or restored wetland areas available in the city's hinterland, 3)- increase the number of community-managed areas and eco-enterprises responsible for marketing e.g. organic products (rice and vegetables) and traditional crafts, and 4)- strengthen training of eco-guards/guides. The detailed programme of work for redeveloping and/or strengthening the sector will be (re)discussed and agreed during the preparatory phase of the final project document.

*Output 1.1.5 - The annual budget of SDTBR is agreed for the first three consecutive years.*

On an institutional level, an analysis of the SDTBR's annual operating requirements for the first five years will be carried out (2017-2021). Various scenarios will take not only this project budget into account, but also the financial contributions from the two States, which should cover 40% of the Secretariat's annual budget and its programme of action from 2018 or year 2 of the project. A fundraising plan to cover the SDTBR Secretariat's operating budget and activities will be prepared with a view to obtaining grants and co-financing for 2017-2021. Once the fundraising plan is agreed, a long-term sustainability plan, in which core contributions from the two States will make up at least 50% of the annual budget of SDTBR, will be produced to cover the period 2020-2030.

Outcome 1.2: A capacity building and training plan for key stakeholders is available to strengthen governance and future actions on the ground.

*Output 1.2.1 - A capacity building programme is designed and implemented.*

The project will provide a capacity building programme not only for SDTBR staff, but also for the programme's partners (such as staff working for ECOTOUR and/or MAVA Foundation projects, for the GEF Senegal Sustainable Cities Initiative, or for any other projects closely associated with the SDTBR), as well as for representatives of the communities (or villages/settlements) and their extension officers responsible for shared governance.

The innovative nature and success of the project depend on the proper functioning of the governance bodies and the co-management mechanism. In order to ensure that the training deals with the realities on the ground, it could also include modules on soil degradation and erosion control, village resource management planning, restoration of forest cover and agroforestry, as well as the protection and management of fauna and flora (incl. invasive species). The project will support the compilation of guidelines to promote effective management and will disseminate lessons learned and best practices observed elsewhere.

These documents will be used to support a training plan, with five training sessions per year in one or several existing training institution(s) such as: the Universities of Saint-Louis and Nouakchott, the Prospective Rural and Agricultural Institute (Initiative Prospective Rurale et Agricole, IPAR), or the Institute for the Environment and Development (Institut pour l'Environnement et le Développement, IED) and/or non-university research institutes (for example the Senegalese Institute of Agricultural Research [Institut Sénégalais de Recherches Agricoles, ISRA], the Mauritanian Oceanography and Fisheries Research Institute [Institut Mauritanien de Recherches Océanographiques et de Pêches, IMROP], and the National Centre for Agronomic Research and Agricultural Development [Centre National de Recherches Agronomiques et Développement Agricole, CNRADA].

Outcome 1.3: Awareness-raising and communications

*Output 1.3.1 – Communication plan and “package” is prepared and disseminated.*

The SDTBR's effectiveness will increase with the implementation of a communication strategy geared toward building a *perceived image* of the Reserve that is as close as possible to the *image desired* by the various committees and the UGT. The communication strategy will use the following materials and tools: the Vision document, a graphic (logo) of the Senegal Delta Transboundary Biosphere Reserve, website, newsletter, illustrated maps, *Journées du Delta* conferences and fairs (the concept has already been tested by the Transnational Committee), rural radio programmes, as well as seminars aimed at providing technical support to various stakeholders. A centre providing documentation to and welcoming visitors will serve to disseminate the communication materials as widely as possible, including via the information centres in protected areas on both sides of the border, whose capacities will be strengthened.

The project will contribute regularly to IW-Learn (GEF's "International Waters" Programme's cooperation and learning programme) by producing at least two articles on experiences and results and by attending the "*GEF International Waters Conference*", which takes place every two years. The IUCN/GEF project will invest 1% (up to a maximum of USD 35,000) of the grant to support this work.

**Component 2. Integrated ecosystem-based management and restoration in the Senegal Delta**

**Rationale**

The objective of this component is to: 1)- build the SDTBR's scientific and technical programme, with the involvement of the Scientific and Technical Committee (CST) and other partner institutions, by producing a technical (applied research) Master Plan, 2)- develop sustainable management activities that contribute to ecosystem

restoration, and at the same time empower populations and improve their livelihoods. Component 2 is a critical element of the SDTBR institutional management planning process.

Outcome 2.1: Critical ecosystems and key habitats are managed sustainably to protect water resources, forests and fisheries and enhance ecosystem services.

*Output 2.1.1 – The SDTBR Technical (Research) Master Plan is available to guide action on the ground.*

On-the-ground action within the SDTBR will be guided by a technical/applied Research Master Plan (and multi-year programming work plan) validated by the Scientific and Technical Commission (CST), which is in charge of guiding analysis of impacts and possible factors of change in the SDTBR.

This mechanism will guarantee that research issues are consistent with the Reserve’s needs in terms of knowledge, development and management. This programming will include synergy with the other stakeholders, particularly OMVS and universities. The production of strategies and analysis of the following actions (among others) will be considered:

- The delta's ecosystems, location and extent of impacts of future development projects;
- Climate change and options for possible adaptation and mitigation;
- Impacts of current objectives regarding the management of surface and ground water resources;
- Impacts and potential nature-based options for remedial measures against water-borne and emerging diseases;
- Soil degradation, bush fire prevention and overgrazing;
- Introduction of flora and fauna species and the impacts of invasive plants, *Typha domingensis* and others;
- The impact of pollution: sources, pollution rates, mitigation measures and close monitoring.

The Scientific and Technical Commission will give special attention to the conjunctive management of surface and groundwater resources, as an essential element for effective integrated water resources management. However, as is often the case in many transboundary situations, knowledge on shared groundwater resources in the lower Senegal River is scarce or outdated (the latest report on groundwater, by COWI and Plyconsult, dates back to 2001). In the delta, people rely mostly on surface water and to a limited extent on underground “*alluvial*” water (2-15 m deep) during the dry season. Cooperation on groundwater assessment and management between Mauritania and Senegal will, however, be discussed as part of the Research Master Plan, thus clearly filling one of the gaps highlighted in the OMVS TDA/SAP revised in 2016.

Since research, even applied research, is not an end in itself, these analyses and strategies will be produced to guide *in fine* several programmes to restore ecosystem functions and services, which will be accompanied by socioeconomic actions. A thematic, geographical or sociological approach will be used.

*Output 2.1.2 - Production and implementation of local plans for ecosystem restoration and livelihoods.*

Between two and four local ecosystem and habitat restoration plans will be defined in a participative manner with communities and user groups. During the preparatory phase of the final project document, the restoration plans on the community lands of two to four villages will basically seek to stop the continuous degradation resulting from non-sustainable practices in land and water (surface and groundwater) use (suggested plans include: restoration and management of Ndiago’s communal forests, resource restoration for M’boyo islands, etc.). The techniques used in the field will include simple indicators that measure the evolving status of the resources and social and environmental benefits.

Outcome 2.2: Stakeholders and SDTBR management mechanisms mobilised to achieve improved natural resource use and demonstrate sustainable practices.

This will entail developing a range of sectoral activities for sustainable natural resource management linked to the planning tools developed beforehand. This is essential to help meet the population's needs (poverty reduction and increased resource productivity) and to guarantee that exploited resources recover and increase.

Outcome 2.2. (outputs 2.2.1 / 2.2.2) should produce clear benefits in terms of livelihoods and poverty reduction. To ensure that targets are met, National Committees will oversee progress made under this outcome and advise on opportunities for scaling up elsewhere in the SDTBR.

*Output 2.2.1 – On-the-ground actions for sustainable land, water and fisheries established.*

Support initiatives for productive activities adopting management and sustainable use practices will be defined in collaboration with the communities that will receive training (in particular field extension staff, women and young people). The preparatory phase of the final project document will define the precise areas of intervention of this component and their locations in the SDTBR. Based on the information available at this stage, the project will focus on 10-12 villages or settlements (candidate villages/settlements include Ziré, Meidina, Birette, Bouhajra) and the following types of initiatives could be carried out:

- Support initiatives for coastal and/or continental fishing communities, with training in processing and development techniques;
- Support initiatives for communities on soil restoration through: adoption of anti-erosion measures, active management of bush fires, restoration and management of woody species of economic interest in the areas surrounding villages, establishment and management of tree/plant nurseries, etc.;
- Support initiatives for communities on management and restoration of dry season grazing lands.

With regard to sea fishing, in order for the project to contribute to efforts made to eliminate Illegal, Unregulated and Unreported Fishing (IUU), support to stakeholders will only be given to fishermen and fish processing people who observe national regulations, including the requirement to have a fishing registration card, a fixed registration plate on fishing boats and a fishing licence. This condition will not apply to the poorest communities that engage in subsistence fishing in the continental water bodies of the lower delta. For these people, plans will be made to restore river banks and shallow areas, as well as establish permanent or temporary fishing exclusion zones.

*Output 2.2.2 - On-the-ground actions for community engagement in income-generating activities established.*

One expected outcome of the training is that the communities will know how to adjust the harvesting of the resource depending on the quantitative/qualitative status of the resource. Simple indicators will thus be developed to enable the identification of abstraction thresholds over which the use becomes unsustainable.

At a village/settlement level, community initiatives can be developed to allow 10+ villages to diversify their productive activities and their sources of income. The preparatory phase of the project will select the target villages/settlements, and the following types of initiatives could be implemented:

- Initiatives to promote organic farming and market garden crops;
- Initiatives to promote income-generating activities in poultry farming, beekeeping, small business creation, etc.;
- Initiatives to promote ecotourism and local crafts;
- Initiatives for the marketing of agricultural products and fishing products, using the “sustainable use in the Biosphere Reserve” label.

Some actions will be funded directly, but the project will provide the necessary support for the creation of projects that can be presented to interested donors.

### **Component 3. Scientific cooperation, knowledge acquisition and sharing, and ecosystem monitoring and evaluation**

#### **Rationale**

The objective of this component is to: 1)- allow increased scientific cooperation in order for the sustainable management of the SDTBR to progress, 2)- increase knowledge, its dissemination and its capitalisation, and finally 3)- set up a monitoring-assessment system, including monitoring tools, indicators, etc. to enable the production of the necessary analyses and reports.

Outcome 3.1: Scientific and technical cooperation is strengthened for enhanced data collection, processing and learning

*Output 3.1.1 - Transboundary data collection to monitor key conservation and development parameters.*

The SDTBR should be capable of analysing data on the area within its boundaries (and even slightly beyond) and on its own activities. Agreements and partnerships between the Reserve and research institutes (Ecological Monitoring Centre [Centre de Suivi Ecologique, CSE], Universities of Nouakchott, Saint-Louis and Dakar), as well as with the units specialised in protected areas in Djoudj (Senegal) and Diawling (Mauritania), will help to drive the transboundary collection and analysis enabling the updating of the existing GIS, and serving as a basis for the monitoring of parameters and indicators on conservation, restoration and development. These institutions have carried out this work for many years already, still the issue of sustainability and the need for clear attribution for data collection, management and analysis will be addressed during the preparatory phase of the final project document, to ensure that data collection storage and analysis continues once the IUCN/GEF project has ended.

Outcome 3.2: The monitoring and evaluation system of the project is in place

*Outputs 3.2.1 / 3.2.2 - Monitoring and reporting plans deliver guidance on execution of objectives.*

Using a purpose-built information system, monitoring activities will allow the project to oversee progress (*i.e.* whether achievements match those set in annual programming and work plans), but also keep abreast of investments made in connection with governance issues and management planning activities.

The evaluation functions will be carried out based first and foremost on GEF requirements (especially the tracking tools linked to the International Waters focal area). The IUCN Project Guidelines and Standards (PGS - including the IUCN Environmental and Social Screening System, and the monitoring and evaluation policy and guidelines) will also be used. However, other tools and guidelines related to soil degradation or invasive species may also be used. Supervisory missions (by IUCN or external experts) will be able to rely on data stored in the knowledge system.

Using indicators developed during the final project document preparation phase, the project will be able to supply quantitative and qualitative data on trends in the status of natural resources in the project area. In addition to showing natural resource trends and corresponding actions, the system uses indicators linked to human activities (agricultural, commercial, incomes) and will attempt to establish correlations with the indicators on natural resource management. In order to achieve this, beneficiary communities will play an active role in the monitoring and evaluation of the activities in which they are involved.

A specialist in monitoring-evaluation will be hired by the project to follow monitoring progress at all levels, especially collection and analysis of baseline data for quarterly and six-monthly activity reports, six-monthly assessments and reports at project closure. Reports on how the IUCN/GEF project complies with IUCN project management principles and standards, or how project results meet poverty reduction objectives, may be produced.

#### **4) - Incremental cost reasoning and expected contributions from the baseline, the GEF TF and co-financing**

Starting from the baseline situation, by strengthening the Biosphere Reserve (which is a unique institutional cooperation mechanism), the project will promote the management of the basin (ecosystems, populations, productive sectors, private sector) through increased knowledge, shared governance, organisation of stakeholders to improve local socioeconomic conditions, and capacity building. The project will ensure that SDTBR guides and coordinates projects and partners that would otherwise be working in isolation.

The project will provide public service stakeholders and CSOs with the means to apply innovative governance and to cooperate strategically with OMVS on water management and research. Thus, because it will support political and technical cooperation, reduce conflicts, work toward improving the restoration of ecosystems and the socioeconomic conditions of stakeholders, the Reserve will maximize the effectiveness of other projects. This is precisely the reason why the two States and UNESCO agreed in 2005 to establish the Biosphere Reserve.

The project will increase efforts to achieve the restoration of ecosystems and resources, as conveyed by the SDTBR's Vision, its first management plan and its first work programmes focusing on land use planning and mitigation of priority constraints, in a bid to establish a closer inter-State partnership.

The total co-financing for this project is estimated at USD 7.850.000, to be confirmed during preparation of the CEO endorsement request or earlier, in discussions between the IUCN offices in Nouakchott and Dakar and the local representations of e.g. the MAVA Foundation, AFD, GIZ and OMVS, the cities of Saint-Louis and Ndiago, and operators in e.g. the tourism sector. As highlighted in section 2, current co-financing will mainly strengthen components 1 and 2 devoted to governance and ecosystem-based management activities. If possible new co-financing contributions will be secured during the PPG phase of the project.

#### **5) - Global environmental benefits (GEFTF)**

The global environmental benefits of this project are:

- The project's main goal is to strengthen cooperation between the two States which share the same water resources, the same human populations, the same development priorities and the same ecosystems and biodiversity. The SDTBR will facilitate implementation of the OMVS Strategic Action Plan. The SDTBR's Vision for cooperation between Mauritania and Senegal will yield short, medium and long-term gains through combined actions that benefit ecosystems and investments in community wellbeing. This will result, among other things, in lower vulnerability to climate change and more resilient ecosystems. Transboundary cooperation will also reduce the threats facing ecosystems and shared habitats, including protected areas of regional, international and global importance.
- Another function of the project is to stop the degradation of ecosystems, habitats and natural resources, and to invest in sustainable management, restoration, protection and maintenance of the ecosystem services in this environment. By improving the environmental and socioeconomic conditions in the lower Senegal delta, the project will contribute to improving the environmental "health" of the river basin as a whole. The preservation of these environmental conditions will help sustain biodiversity and associated ecosystem services, all of which provide global environmental benefits.

#### **6) - Innovation, sustainability and potential for scaling up**

##### **Innovation**

The project is innovative insofar as the proposed management mechanisms will allow for integrated, intersectoral and participatory management of the SDTBR, as opposed to sectoral or purely administrative management that does not recognise the interdependence between the various management areas (water, agriculture, fishing, nature

conservation, etc.). Through its approach and structure, the project will link local priorities and the priorities of the region covered by the STDBR, and even those that appear in the Senegal River Basin's Strategic Action Plan adopted in December 2016.

## **Sustainability**

The mechanisms of shared governance have been discussed extensively with all the stakeholders since 2011. The sustainability of the project is guaranteed by the establishment of governance mechanisms at several levels, i.e. political and strategic (CTO), scientific and technical (CST) as well as national (national committees) and local (local committees). The local level makes it possible to work with community structures for which training in sustainable natural resource management and climate change adaptation will be provided.

The inclusion of a large number of actors at all levels, from design to technical validation and then implementation of the project, accompanied by training, awareness raising and information workshops, will reduce conflicts.

## **Potential for scaling-up**

The project will seek first and foremost to scale up successful on-the-ground actions to other parts of the vast SDTBR. Furthermore, the project has great potential for replication in other parts of Mauritania and Senegal, or even other West African countries where many valuable terrestrial or coastal ecosystems warrant transboundary management with the same type of shared governance. The lessons learned from this project will clearly also be useful for projects carried out under the Great Green Wall Initiative (GGWI).

The good governance techniques established for sustainable natural resource management in the delta will also serve as examples for OMVS, which may have to manage other "*areas of special ecological importance*" in the upper basin of the Senegal. Finally, UNESCO's replication of the structuring and outcomes of the project in other Biosphere Reserves across Africa seem likely.

Other transboundary areas in the region (between Senegal and Gambia, Senegal and Guinea Bissau) will benefit from the experience gained from this project and the success of the SDTBR, also given that the Regional Marine and Coastal Conservation Programme for West Africa (Partenariat Régional pour la Conservation des Zones Côtières et Marines d'Afrique de l'Ouest, PRCM) includes a component on knowledge sharing dedicated to the dissemination of best practises.

The project will cooperate with SenegalWet, a network for regional cooperation whose members, Senegal, Mauritania, Mali and Guinea, share the Senegal River basin. This regional network endorsed by the Ramsar Convention on Wetlands provides a platform for collaboration between governments, technical experts, international NGOs, local communities and private companies. It provides effective support for the improved implementation of the Ramsar Convention's objectives and its Strategic Plan 2016-2024.

2. [Stakeholders](#). Will project design include the participation of relevant stakeholders from [civil society organizations](#) (yes  /no ) and [indigenous peoples](#) (yes  /no )? If yes, identify key stakeholders and briefly describe how they will be engaged in project preparation.

The key project components are aimed at building communities' capacities and managing natural resources. Communities therefore play a key role in most of the activities. In order to understand the interests, needs and potential risks related to specific stakeholders (e.g. vulnerable or marginalized groups), project preparation will start with a social analysis which will include participatory research techniques to ensure appropriate engagement of stakeholders.

The STBDR is an area with three main resident user groups: the Wolof, who make up the majority, the Moors and the Fula. The Wolof live mainly in urban centres and large villages, while the Moors and the Fula often live in small communities scattered across the area due to the nature of their activities. The Wolof are primarily farmers and

secondarily livestock breeders and fishermen. The Fula are mainly stockbreeders (breeding cattle in particular), but are increasingly engaging in irrigated agriculture and horticulture. The Moors are both stockbreeders and fishermen (especially the Takhredient), although a growing number are now turning to irrigated agriculture. Over 80% of household income in the two countries is generated by natural resource utilisation (IUCN, 2004).

The local communities and their representatives take part in local governance committees, which are responsible for promoting sustainable resource management within the SDTBR. The project will attach great importance to the competent and effective functioning of these local committees.

During the preparatory phase of the final project document, the appropriate communities and civil society organisations will be consulted on the mandate, functioning, responsibilities, and influence (etc.) of local committees.

Other partners (the project preparation phase will entail, *inter alia*, describing the key participants clearly and defining their action to support the SDTBR):

- The cities of Saint-Louis and Ndiago: during the preparatory phase of the final project document, the participation of representatives of these urban centres in the project will be secured, whether through the committees or through targeted actions (partnership with economic operators, information and raising public awareness). A specific section in the management plan will be devoted to this.
- OMVS: during the preparatory phase of the final project document, all possible efforts will be made to discuss OMVS's participation (represented by the Directorate of the Environment and Sustainable Development Direction de l'Environnement et du Développement Durable, DEDD] or by Diama Dam Management and Exploitation Company [Société de Gestion et d'Exploitation du barrage de Diama, SOGED]) in SDTBR bodies (for example the Transnational Committee) and processes. Cooperation on data collection/analysis and research (*sensu lato*) will also be described in detail.
- The protected areas in the SDTBR are stakeholders in all SBTDR bodies and processes. They often conduct natural resource monitoring, and the project foresees activities to support them in these duties.
- The statutory UNESCO National Committees, whose work since 2005 has been remarkable.
- The University of Nouakchott and the University Gaston Berger (UGB) in Saint-Louis (members of the Scientific and Technical Committee) will take part in developing and executing the SDBTR's scientific and technical programme under the supervision of the Biosphere Reserves, and will provide support for the various components and monitoring, as well as for training students and other categories of experts.
- The Ecological Monitoring Centre (Centre de Suivi Ecologique, CSE) in Dakar, which hosts the database on the SDTBR, will coordinate the updating of the database, the establishment of the SDTBR's GIS and its monitoring and assessment system.
- A number of training centres (such as the Training Centre [Centre de Formation, CIFA] of the Department for Land Development in the Senegal Delta and Valley [Société d'Aménagement des terres du Delta et de la Vallée du Sénégal, SAED], the Senegalese Institute for Agronomic Research [Institut Sénégalais de la Recherche Agronomique, ISRA] and, on the Mauritanian side of the border, the Boghé Centre for Training Producers [Centre de Formation des Producteurs Ruraux de Boghé, CFPRB], the Higher Institute of Technological Education [Institut Supérieur d'Enseignement Technologique, ISET], and the National School for Agricultural and Rural Extension [Ecole Nationale de Vulgarisation et de Formation Agricole, ENVFA]), will participate in the training described in output 1.2.1. on capacity building.

The governments of Mauritania and Senegal, through their Ministries of the Environment, will take on the coordination of national and regional activities, and will also take part in the implementation of certain activities.

3. *Gender Equality and Women's Empowerment.* Are issues on [gender equality](#) and women's empowerment taken into account? (yes  /no ). If yes, briefly describe how it will be mainstreamed into project preparation (e.g. gender analysis), taking into account the differences, needs, roles and priorities of women and men.

The project approach will be aimed at establishing practices that promote gender equality in the activities proposed. Women's groups will be systematically involved from the start in discussions about project activities through the local governance committees. This will ensure that the social and cultural characteristics of the intervention area are taken into account.

In the Senegal delta, women play a special role in community and village activities, especially in agriculture, crafts using straw or other plaiting material, and fisheries, and this is why they are considered as an important target group.

Mauritania and Senegal have made progress in reducing gender inequality through political and institutional mechanisms like the National Gender Institutionalisation Strategy adopted by Mauritania. The ministries involved in the project have gender focal points who will be consulted.

During the preparation of the final project document, a detailed gender analysis will be carried out to accurately identify women's roles in natural resource management activities. The analysis will assess whether women's activities are carried out individually, or in small groups, or collectively with the settlement/village. If the activities are collective, the exact level of structuring and organisation will be assessed.

This analysis is of critical importance for the proper implementation/execution of (primarily but not only) Component 2. It will also attempt to measure the influence of women on collective decision-making in their settlements/villages and on natural resource management. If the assessment reveals that their influence is significant, the project will develop activities that specifically target women's groups. This analysis will also explore whether project activities might inadvertently trigger adverse impacts on women, or groups of women, such as exacerbating inequalities or increasing workloads, and will seek opportunities to provide development benefits, i.e. through training in natural resource management or income generation or diversification of activities.

4 *Risks.* Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable).

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Risks	Level	Mitigation Measure
General complexity, because of the transboundary nature of the project.	Moderate	Project design must be simple and rely on the shared governance mechanisms. Communication, coordination and planning will be given priority.
Planned interventions are not effective as a result of rapid and sustained degradation of ecosystems.	Unknown	Project steering committee and project management will adapt quickly to modify resource allocations according to priorities at local level.
Sustainability of the SDTBR Secretariat.	Moderate	Propose financial sustainability plan to Transboundary Steering Committee (TSC / CTO) and secure commitments from governments.

Securing key partnerships (with OMVS, the city of Saint-Louis and other urban centres, private sector) will delay project execution.	Moderate	All key partners have (since 2010 in some cases) been involved in planning the project and will be invited to sit on relevant Committees. Project is aware of the need to address this issue by securing cooperation agreements, and commitments for action, from key partners as soon as possible.
Complexity of the governance model proposed.	Moderate	Governance model proposed during planning phase (initiated in 2010) has been discussed with, and agreed by ALL stakeholders, and implementation will suffer few delays. Project management and relevant committees will be prompt to adapt the model to local needs and the different types of stakeholder groups, but this is unlikely to derail the project.
Weak cooperation among institutional stakeholders.	Moderate	Components 1 and 2 include many joint planning activities (fisheries, restoration, tourism, invasive species, groundwater etc.) to increase cohesion and bring institutional stakeholders closer together.
Weak participation of target communities in ecosystem restoration/sustainable use of natural resources.	Moderate	The participatory governance system, including local stakeholder committees, will ensure that actions proposed are relevant in terms of socioeconomic benefits and livelihoods.
Low uptake of methods, techniques and tools for the management of natural resources.	Moderate	The capacity building and training (output 1.2.1) and knowledge acquisition and sharing (output 3.1.1) programmes will be responsible for best practice tools and their dissemination.
Lack of expertise.	Moderate	The SDTBR is responsible for ensuring participation from the widest number of the <u>many</u> scientific, technical, training and outreach institutions available in Mauritania and Senegal.

5. *Coordination.* Outline the coordination with other relevant GEF-financed and other initiatives.

This section provides an outline of coordination with partners (details will be given during the preparatory phase of the final project document).

This section provides an outline of coordination with partners (details will be given during the preparatory phase of the final project document).

The responsibility for the SDTBR project will lie with the Ministries of the Environment and Sustainable Development of Mauritania and Senegal, with IUCN's support. The project will strengthen the Senegal Delta Transboundary Biosphere Reserve's management bodies and processes already in place (as described in Chapter 3, Component 1).

The project will liaise closely with all relevant and closely-related projects. Inter-project meetings can be organised regularly in the SDTBR area, in order to ensure that interventions are well-coordinated and proposed actions compatible. In addition to working closely with projects likely to contribute to the SDTBR project through co-financing or parallel financing, such as ECOTOUR and the MAVA Foundation, close coordination will be established with the following projects (to be confirmed during the preparatory phase of the final project document):

Integrated management of water in the Senegal River (PGIRE-2, with funds from the World Bank, **GEF** and contributions from participating countries): to improve joint management of water resources for sustainable development. With three components: (i)- institutional development and capacity building for cooperative management; (ii)- development of multi-purpose water resources infrastructures to support income-generating activities and livelihoods, and (iii)- management and planning of infrastructures to support climate-resilient management in the basin.

Restoration of the economic and ecological functions of Lake Guiers (PREFELAG, with funds from AfDB and **GEF**): to restore 20,000 hectares of wetland ecosystems at Lake Guiers and Ndiel Special Wildlife Reserve (Ramsar site listed on the Montreux Record of endangered sites) in order to restore the productivity of all production systems (agriculture, cattle rearing, fishing, fish farming, drinking water etc.) and increase their resilience to climate change.

West Africa Coastal Areas Programme (WACA, with funds from World Bank and possibly **GEF**): to preserve and restore coastal resources, foster economic development and increase social well-being, and support sustainable development of the main growth sectors, particularly agribusiness, fishing, offshore oil and gas exploration and extraction, and tourism.

West Africa Regional Fisheries Programme (WARFP, with funds from World Bank and possibly **GEF**): to improve the governance and sustainable management of certain fisheries, reduce illegal fishing that threatens the sustainability and sustainable management of certain fisheries resources, and improve the economic contribution of fisheries products to local economies by increasing the added value of processed products.

The SDTBR project will be coordinated with the GEF projects already underway which are related to the project's sector of activity. It will also be coordinated with the "*Canary Current Large Marine Ecosystem - CCLME*" Project, soon to be approved by the governments concerned. Cooperation with the GEF Senegal Sustainable Cities Initiative has already been mentioned under the baseline.

The project also presents synergies and a continuity of the activities in the action plan 2012-2018 of the Regional Marine and Coastal Conservation Programme for West Africa (PRCM).

Finally, the project will work closely with other donors who invest in sustainable development in the SDTBR or in partnership with the cities of Saint-Louis and Ndiago. Relationships with these potential partners will be clarified during the preparatory phase of the final project document.

6. *Consistency with National Priorities*. Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes  /no  ). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

### Mauritania

The project is in line with the recommendations and actions proposed in:

- the National Strategy for the Conservation and Sustainable Use of Biological Diversity (2011-2020);
- the National Action Plan for the Environment 2012-2016 (Plan d'Action National pour l'Environnement 2012-2016, PANE II).

Finally, the SDTBR helps implement the National Wetland Conservation Strategy (2014). The project is aligned with the priorities defined in the Environmental Policy Declaration (Déclaration de Politique Environnementale), the National Biodiversity Report (Rapport National sur la Biodiversité), the National Action Plan on Adaptation to Climate Change (Plan d'Action National d'Adaptation aux changements climatiques, PANA) and the Third National Communication to the United Nations Framework Convention on Climate Change, which list the restoration and integrated management of lowlands and wetlands.

### **Senegal**

The project is consistent with the recommendations and actions proposed in the National Strategy for the Conservation and Sustainable Use of Biological Diversity (2011-2020) and the National Action Plan for the Environment Plan 2012-2016 (PANE), as well as:

- the Emerging Senegal Plan (Plan Sénégal Emergent, PSE), which is the country's benchmark economic and social planning document for 2035. The SDTBR is based on Pillar 2 which is entitled, "Human capital, social protection and sustainable development";
- the Sectoral Policy Statement on the Environment and Natural Resources (Lettre de Politique Sectorielle de l'Environnement et des Ressources Naturelles, LPSE) whose strategic objectives are (*sensu lato*) the protection and conservation of the environment and natural resources, with the participation of populations, groups and the private sector;

This Statement also refers to the following national and sectoral documents:

- the National Action Plan to Combat Desertification (Programme d'Action Nationale de Lutte Contre la Désertification, PAN/LCD);
  - the National Biodiversity Strategy and Action Plan (Stratégie et le Plan National d'Action pour la Conservation de la Biodiversité, NBSAP) (2016-2020);
  - the National Policy on Wetland Management (Politique Nationale de Gestion des Zones Humides, PNZH), 2016-2020;
  - the Strategy for the implementation of the National Action Plan (Plan d'Action National PAN) of the Convention to Combat Desertification. Convention de Lutte contre la Désertification
- Policy documents such as the Agricultural Development Policy (Politiques de Développement Agricole, LPDA), the Livestock Development Policy (Politique de Développement de l'Élevage, LPDE) and the National Plan for Livestock Development (Plan National de Développement de l'Élevage), the Fisheries Development Policy (Politique de Développement de la Pêche), the Action Plan for the Development of Fisheries (Plan d'Action pour le Développement de la Pêche) and the Operational Aquaculture Development Plan (Plan Opérationnel de développement de l'Aquaculture), the Agro-silvo-pastoral Framework Act (Loi d'orientation agro-sylvo-pastorale), and the Hydraulic Policy (Politique hydraulique).

### **In Mauritania and Senegal**

The aim of restoring ecosystem functions and services in the Sudano-Sahelian region aligns with the two countries' most recent goals to achieve neutrality (LDN) in terms of land degradation, as recommended by the Convention to Combat Desertification.

This project is also aligned with the strategy and action plan for the implementation of the Great Green Wall Initiative (GGWI) in the two countries, as a way of improving the resilience of human and natural systems to climate change through sound ecosystem management and sustainable natural resource development (water, soil, vegetation, fauna and flora), and also improving the living conditions and livelihoods of the populations in these areas.

7. *Knowledge Management*. Outline the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

Knowledge management, the sharing of information and dissemination of results are included in the project's components. Accessibility and the broad dissemination of the project's outcomes (to be made available online, in particular) will help increase its visibility, and will also encourage the populations to become more involved in the SDTBR management process.

The learning questions, nature of the products, and the recipients of the different types of learning or communication material, will be defined during the preparatory phase of the final project document. Examples of activities to support learning may include:

- Assessment of drivers of environmental degradation and the management approach used to tackle restoration;
- Assessment of planning processes and management practices that contribute to integrated and rural development;
- Assessment of practices that support ecosystem resilience in the vicinity of key ecosystems;
- Assessment of practices supporting adaptation to climate change (esp. socio-ecological resilience, reduction of vulnerability, and improvement of well-being);
- Assessment of how stakeholder engagement has been sustained to support behavioural change.

In view of the work already carried out (Universities of Dakar, Saint-Louis and Nouakchott, the Ecological Monitoring Centre of Senegal), the implementation of a geographic information system (GIS) will require the centralised storage of the existing information held by these different institutions. The SDTBR will also make a database available online containing scientific studies and documents concerning the delta area. The SDTBR will also cooperate with the OMVS Environmental Observatory (Observatoire de l'Environnement de l'OMVS), and with the specialised protected area units in Djoudj (Senegal) and Diawling (Mauritania) National Parks. Data collection and storage, and dissemination of analyses and other documents (strategies, management plans) will be subject to a memorandum of cooperation between the stakeholders. The issue of sustainability will be addressed during the preparatory phase of the final project document, to ensure that data collection and analysis continues after the end of the IUCN/GEF project.

The knowledge management mechanism will report the ideas, concepts and experiences brought to light throughout the intervention. It must also provide an overview of achievements, successes, failures and the reasons for the latter. Making this knowledge transparent and available will provide clear benefits including:

- Ensuring clear reporting by the GEF project and its Steering Committee to line Ministries;
- Avoiding duplication of operations in an area with many stakeholders and projects;
- Enabling the training of national personnel, technical services and the NGOs involved;
- Disseminating the programme approach and outcomes to others (national and regional levels);
- Participating in IW-Learn (GEF International Waters Learning Exchange and Resource Network), which coordinates exchanges of experiences between GEF projects, using the resources of the "*International Waters*" Programme.

The technical material, training tools, communication and education products will be shared widely with all stakeholders.

The project will promote international contacts with other Biosphere Reserves (transboundary and others), research bodies, IUCN Commissions, etc., which will make it possible to identify innovative experiences and best practices that can be replicated at local level.

The monitoring-assessment system and the communication plan will provide support for knowledge management.

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

**A. RECORD OF ENDORSEMENT<sup>9</sup> OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):**  
 (Please attach the [Operational Focal Point endorsement letter](#)(s) with this template. For SGP, use this [SGP OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mariline DIARA	GEF Operational Focal Point - Senegal	<b>MINISTRY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT</b>	<b>07/20/2016</b>
Mohamed -Yahya LAFDAL CHAH	GEF Operational Focal Point - Mauritania	<b>MINISTRY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT</b>	<b>07/18/2016</b>

**B. GEF AGENCY(IES) CERTIFICATION**

**This request has been prepared in accordance with GEF policies<sup>10</sup> and procedures and meets the GEF criteria for project identification and preparation under GEF-6.**

Agency Coordinator, Agency name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email
Jean-Yves Pirot, Director, IUCN GEF Coordination Unit		07/25/2016	Jacques Somda		jacques.somda@iucn.org

<sup>9</sup> For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

<sup>10</sup> GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, SCCF and CBIT

**C. ADDITIONAL GEF PROJECT AGENCY CERTIFICATION (APPLICABLE ONLY TO NEWLY ACCREDITED GEF PROJECT AGENCIES)**

For newly accredited GEF Project Agencies, please download and fill up the required [GEF Project Agency Certification of Ceiling Information Template](#) to be attached as an annex to the PIF.

Date: 25 September 2017

To: The GEF Secretariat  
Washington, DC 20433

***Subject: GEF Project Agency Certification of Ceiling Information***

Per Council requirement for GEF Project Agencies, I am pleased to inform you that:

- (a) the value of the largest project implemented (or executed) by IUCN to date is USD 50.1 million<sup>11</sup>; and,
- (b) the total value of all projects under implementation by IUCN, as of September 2017, is USD 411.0 million.<sup>12</sup>

I certify that the GEF financing currently being requested by IUCN for the project “*Strengthening transboundary cooperation for improved ecosystem management and restoration in the Senegal Delta*”, in the amount of USD 4,437,156 is lower than the largest project that IUCN has implemented (or executed) to date.

I further certify that the total amount of GEF financing currently under implementation by IUCN, plus the requested GEF financing for the above mentioned project, does not exceed 20 percent of the total amount of all projects that IUCN had under implementation as of September 2017.

Sincerely,



Jean-Yves Pirot  
Director  
GEF Coordination Unit  
IUCN

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<sup>11</sup> This amount excludes co-financing.

<sup>12</sup> In support of these statements, a copy of (a) the signed loan/grant agreement for the largest project implemented (or executed), and (b) a list of all projects (together with their amounts in US dollars) need to be sent via email, under a separate cover, to the GEF Secretariat at [Project\\_Agency@theGEF.org](mailto:Project_Agency@theGEF.org). These supporting documents will be treated as confidential and will not be shared with any parties external to the Secretariat. The PIF will not be approved in the absence of these supporting documents.