



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL SIZE PROJECT

TYPE OF TRUST FUND: GEF TRUST FUND

PART I: PROJECT INFORMATION

Project Title:	Improving IWRM, knowledge-based management and governance of the Niger Basin and the Iullemeden-Taoudeni/Tanezrouft Aquifer System (ITTAS)		
Countries:	Benin, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Guinea, Mali, Mauritania, Niger, and Nigeria.	GEF Project ID:	5535
GEF Agencies:	UNDP, UNEP	GEF Agency Project ID (UNDP):	4798
		GEF Agency Project ID (UNEP):	00850
Other executing partner (s):	Niger Basin Authority (NBA), Observatory of the Sahara and Sahel (OSS), UNESCO-IHP	Submission date:	13 Aug. 2013
		Resubmission date:	9 Sept. 2013
		Resubmission date:	9 Jan. 2014
GEF focal area (s):	International Waters	Project duration (months):	60
Name of parent program (if applicable): For SGP + <input type="checkbox"/> For SFM/REDD+ <input type="checkbox"/>		Agencies fees (\$):	
		UNDP	803,250
		UNEP	405,000

A. INDICATIVE FOCAL AREAS STRATEGIC FRAMEWORK:

Focal area objectives	Trust Funds	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
IW-Objective 1: Catalyze multi-state cooperation to balance conflicting water uses in Transboundary surface and groundwater basins while considering climatic variability and change	GEF TF	10,785,714	63,000,000
IW-Objective 3: Support foundational capacity building, portfolio learning, and targeted research needs for joint, ecosystem based management of trans-boundary water systems	GEF TF	2,000,000	7,956,945
SUB-TOTAL		12,785,714	70,956,945
Project management cost (5%)		639,286	7,000,000
Total cost of the project		13,425,000	77,956,945

B. INDICATIVE PROJECT FRAMEWORK

Project Objective: Knowledge-based management, governance and resources conservation of the Niger Basin and the Iullemeden-Taoudeni/Tanezrouft Aquifer System (ITTAS) improved to support IWRM for the benefit of communities and the resilience of ecosystems						
Project component	Grant Type	Expected outcomes	Expected outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
Component 1: Promoting conjunctive management of ground and surface waters	TA	IWRM supported by a sound understanding of ground water resources and their linkages with surface water systems	<p>1.1. The hydrogeological functioning of/and linkages between the Iullemeden, Taoudeni-Tanzerouft Aquifers (ITTAS), other aquifers systems and the surface waters of Niger River Basin are better understood through assessments and modelling;</p> <p>1.2. Transboundary threats to the ITTAS, including climate variability and change, assessed and IAS Strategic Action Programme, emphasizing conjunctive management of ground and surface waters, elaborated in an annex to the Niger Basin TDA/SAP-SDAP and technically cleared for Ministerial endorsement;</p> <p>1.3. Training provided to strengthen capacities of national and regional water managers to process TDA/SAP and specialized aspects of aquifer assessment, modelling, planning and management;</p>	GEF TF	2,300,000	5,996,945

Project Objective: Knowledge-based management, governance and resources conservation of the Niger Basin and the Iullemeden-Taoudeni/Tanezrouft Aquifer System (ITTAS) improved to support IWRM for the benefit of communities and the resilience of ecosystems

Project component	Grant Type	Expected outcomes	Expected outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
<p>Component 2: Sharing responsibilities and benefits with local communities, civil society in conserving basin resources, including groundwater</p>	INV	<p>Local communities and Niger Basin Civil Society platforms engaged on basin resources management and conservation for better control of flood/drought/pollution, reduction of pressure on land, forest and biodiversity while improving living conditions of households</p>	<p>2.1 Community actions established for the protection of aquatic habitat and wetlands' biodiversity threatened by overexploitation of their resources and by invasive aquatic plant species;</p> <p>2.2 Local initiatives developed around W Niger, Chad and North Cameroon protected areas to reduce pressure on resources through participatory restoration and management of resources and biodiversity;</p> <p>2.3 Efficient community restoration and sustainable management of mountain forest ecosystems implemented in the Upper Guinea, the Sikasso region and the Bani Basin in Mali, Adamaoua in Cameroon and Northern Benin</p> <p>2.4 Pilot projects demonstrate best practices in the management of shared groundwater resources, e.g. protection of resources, demineralization of groundwater resources, integrated planning for surface and ground waters, among others.</p> <p>2.5 Training provided to basin user associations on (i) wetlands and ecosystems to promote the wise use of natural resources, supported by, increased their knowledge; (ii) on entrepreneurship, value chain management, processing of agro-pastoral production and rural finance and organization strategies, etc. to sustain their activities; monitoring micro-grants projects for better efficiency;</p>		4,385,714	40,000,000
<p>Component 3 Strengthening industries' environmental/</p>	TA	<p>Introduce systematic and integrated approach of</p>	<p>3.1 Assessment and selection of participating pilot enterprises;</p> <p>3.2 Introduction of the Transfer of</p>	GEF TF	3,000,000	10,000,000

Project Objective: Knowledge-based management, governance and resources conservation of the Niger Basin and the Iullemeden-Taoudeni/Tanezrouft Aquifer System (ITTAS) improved to support IWRM for the benefit of communities and the resilience of ecosystems

Project component	Grant Type	Expected outcomes	Expected outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
social responsibility capacities		industrial competitiveness and environmental/ social responsibility to reduce wastewater discharges and pollution loads in the Niger River	Environmentally Sound Technology (TEST) approach at the enterprise level; 3.3 Dissemination of TEST programme results			
Component 4. Capacity building and stakeholders involvement in Niger River ecosystem based management	TA	National policies and institutions, civil society platforms support Niger River ecosystem based management	<p>4.1. Assessments and analyses provide governance options for integrating surface and groundwater management in the Niger-ITTAS system;</p> <p>4.2. Countries technically supported to: evaluate surface-groundwater governance options, reach consensus on an option and implement agreed option to strengthen conjunctive management of surface and groundwaters;</p> <p>4.3. Policy actions at regional (NBA, Consultation Mechanism) and national levels (inter-ministerial committees, ministries responsible for water) further integrate conjunctive management of transboundary ground and surface waters into SDAP, National plans and strategies (IWRM, NAPs among others) leading to mainstreaming and implementation of policy reforms</p> <p>4.4. Ministries of Finances and Parliamentarian set up dedicated monitoring and evaluation mechanisms through MOU, Work Plan, Aid Memoire, etc. to assess and monitor budget allocated to support the implantation of the SDAP and its Investment Program;</p>	GEF TF	3,100,000	14,960,000

Project Objective: Knowledge-based management, governance and resources conservation of the Niger Basin and the Iullemeden-Taoudeni/Tanezrouft Aquifer System (ITTAS) improved to support IWRM for the benefit of communities and the resilience of ecosystems

Project component	Grant Type	Expected outcomes	Expected outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
			<p>4.5. National institutions managing transboundary terrestrial ecosystems and wetlands provided with platform for cooperative actions and capacity building to address current emerging challenges and promote collaborative monitoring mechanisms;</p> <p>4.6. Capacities of academic and research institutions strengthen with tools and training to provide relevant knowledge and information guiding the management of basin resources, including groundwater, genetic resources, climate vulnerability and risks, etc.;</p> <p>4.7. Transboundary Learning mechanisms established at community and Inter States levels; and experiences shared through website, IWLEARN, technical papers, video, technical forums, GEF IW Biennale Conference, WWF, AMCOW and other relevant forums</p>			
Sub-total					12,785,714	70,956,945
Project management cost (5%)					639,286	7,000,000
Total cost of the project					13,425,000	77, 956,945

C. INDICATIVE CO- FINANCING FOR THE PROJECT BY SOURCES NAD BY NAME IF AVAILABLE (\$)

Sources of Co financing	Name of Co-Financer	Type of Co-Financing	Amount (\$)
National governments	NBA	In kind	850,000
National governments	Contribution from National Government to NBA activities	Grant	9, 000,000
Country	Beneficiaries	In kind	500,000
GEF Agency	UNDP – World	Grant	600,000
GEF Agency	UNDP – Country offices	Grant	2, 200,000
GEF Agency	UNEP	In kind, Grant	130,000
Bilateral Partner	Bilateral Partners of the SDAP Germany, France, Canada	Grant	7, 500,000
Bilateral Partner	French Global Environmental Fund	Grant	750,000
Multilateral Partner	World Bank	Grant	50, 000,000

Multilateral Partner	African Water Facility	Grant	1,800,000
Multilateral Partner	IAEA	Grant	1,384,580
Multilateral Partner	OSS	In kind, Grant	282,365
Multilateral Partner	UNESCO	In kind	960,000
CSO	IUCN	Grant	2,000,000
Total of the co financing			77,956,945

D. INDICATIVE TRUST FUNDS RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY

GEF Agency	TYPE OF THE TRUST FUND	FOCAL AREA	Country Name/global	Grant Amount \$ (a)	Agency Fees \$ (b)	Total (\$) c=a+b
UNDP	GEF TF	International waters	Benin, Burkina Faso, Cameroon, Chad, Cote d'Ivoire, Guinea, Mali, Niger and Nigeria	8,925,000	803,250	9,728,250
UNEP	GEF TF	International waters	Benin, Burkina Faso, Cameroon, Chad, Cote d'Ivoire, Guinea, Mali, Mauritania, Niger and Nigeria	4,500,000	405,000	4,905,000
			Total GEF resources	13,425,000	1,208,250	14,633,250

E. PROJECT PREPARATION GRANT

	<u>Amount Requested (\$)</u>	<u>Agency Fees for PPG (\$)</u>
<input type="checkbox"/> Up to) \$300k for projects above \$10 million	300,000	27,000 (9%)
	UNDP (200,000)	UNDP (18,000)
	UNEP (100,000)	UNEP (9,000)

PART II: PROJECT JUSTIFICATION

A. PROJECT OVERVIEW

A.1. Project Description:

1) The global environmental problems, root causes and barriers that need to be addressed;

Context of the Niger River and the Iullemeden-Taoudeni/Tanezrouft Aquifer System (ITTAS)

Africa is endowed with immense renewable ground & surface water resources that are important for economic growth and social development. There are over the 50 international shared basins in Africa, and the Niger River and the Iullemeden-Taoudeni/Tanezrouft Aquifer System (ITTAS) are central for millions of people living in rural areas and still heavily depending on agriculture for their livelihoods.

The **Niger River** is the 3rd river in Africa by its length (4,200 km), after the Nile and the Congo and the most important in West Africa. The basin covers a surface area of about 2.2 million km² with about 1.5 million km² hydrologically active. The river is the pillar of the West African economy and was the cradle of great civilizations of farmers, fishermen and cattle breeders. The river

has also huge potentials for: agriculture with about 2.5 million ha, 20% of which is currently exploited; an estimated hydropower potential of 30,000 GWH, with a current exploitation of the order to 6,185 GWH/year, i.e. 20.6% of the total; 3,800 km of navigable routes from the main course and its main tributaries; and a fish farming potential estimated at 7.5 tons per km of watercourse per year. In term of biodiversity, the basin is a home for a highly diversified fauna with about 36 fish families, more than 50,000 birds representing 56 species. Mammals have been recorded in Transboundary Reserves including the elephant, buffalo, western Buffon's kob, defassa waterbuck, bohor reedbuck, *Damaliscus* antelope, giraffe, hippopotamus, sable antelope, lion, cheetah and a wide range of monkeys.

Despite the socio-economic potential and rich natural/cultural heritage, the Niger Basin has been under threat for more than two decades from desertification and unsustainable natural resource exploitation practices with alarming consequences. The transboundary diagnostic analysis carried out by the RLWDT/NB project revealed that most of the environmental problems are derived from: (i) land degradation (vegetal coverage and soils); (ii) water resource degradation (water shortage and pollution); (iii) loss of biodiversity (flora, fauna and biotope); and (iv) degradation of the living environment (pauperization of the populations, invading aquatic vegetal species, climate variability).

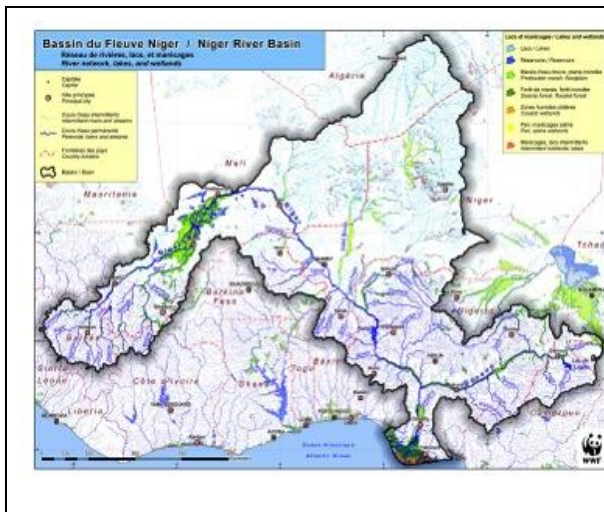


Fig. 1a : Niger River Basin

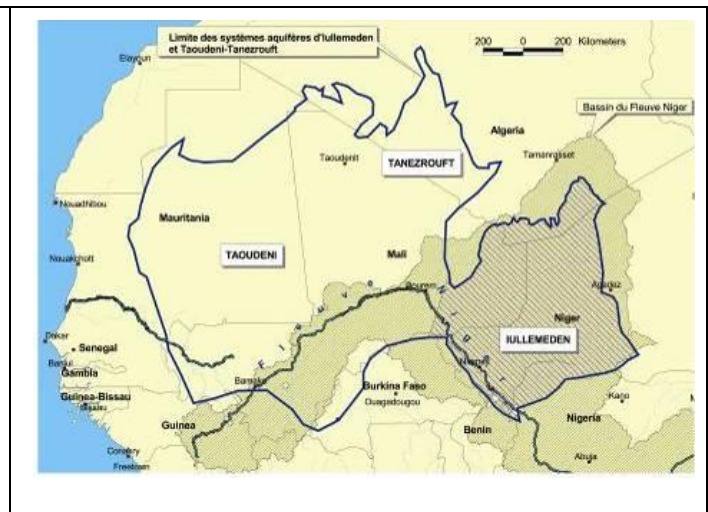


Fig. 1b: Iullemeden-Taoudeni/Tanezrouft Aquifer System

The **Iullemeden-Taoudeni/Tanezrouft Aquifer System** covers an area of approximately 2.5 million square kilometres and extends over seven countries in West Africa (Benin, Burkina Faso, Mali, Mauritania, Niger, and Nigeria) and North Africa (Algeria). Apart from the surface waters of the Niger River, groundwater from these aquifers is the main source for the population. Over the last 50 years, the land use in the recharge areas of the IATAS has changed and affected the recharge to the upper aquifer. With agriculture expanding into marginal low-rainfall areas and resulting land use change in recharge areas and wetlands, the environmental threats and Transboundary risks in the Iullemeden Aquifer System (IAS) are growing. The TDA of the Iullemeden Aquifer System concluded that: (i) aquifer levels have dropped markedly in some areas; (ii) there is a complex and dynamic interaction between the surface water regime and ground water regime, with each supplying the other at different locations and in different seasons; and (iii) over exploitation is likely to exacerbate existing problems.

Barriers

Barrier #1: Limited knowledge. Water resources of Transboundary aquifer systems in West Africa (Senegal-Mauritania Iullemeden, Taoudeni / Tanezrouft, Lake Chad) are often poorly known and increasingly threatened by rising demand for water, adverse effects of variability / climate change, degradation of quality due to pollution from various sources and use of deep water which are sometimes highly mineralized. The hydrological linkages between IATTS and Niger basin water resources are also poorly assessed. The lack of reliable information on climate changes makes it very difficult for NBA and water managers to assess suitable adaptation options and to develop guidelines and standards for planning and water management purposes.

Barrier #2: Low Institutional capacity. There are many legal instruments for water and environment management, but these are still poorly enforced at national level (e.g. Niger Basin Water Charter, UN Resolution 63/124, etc.). Moreover, the institutional framework, especially the national focal structures of the NBA, is facing serious problems of limited technical capacity even to manage their on-going or planned initiatives. For the NBA, the Environmental Observatory remains an essential tool for ecological and socio-economic monitoring. However, the monitoring and equipment is still too limited to support decision making in the basin management. Finally, civil society remains weakly involved in the management of the basin and community initiatives.

Barrier #3 Lack of sustainable financing mechanisms: The overall cost of SAP implementation in the basin is estimated at 1.6 billion USD. The financing of activities to carry out at short-term (2013-2017) is estimated to about 500,000,000 USD i.e. 35% of the total funding. Mobilization of funding remains a challenge for SAP implementation given the low levels of development of the basin countries and the poverty of the communities that depend on natural resources of the river.

Barrier #4 Poor management of natural resources: Poverty, weak technical supervision and means, and unsustainable practices of exploitation and management of natural resources are still perpetuating, including: poor agricultural practices, overgrazing, bush fires, clearing for firewood or construction, misuse of pesticides, etc. These practices are the main cause of land, water and ecosystem degradation. The situation is complicated by the region's vulnerability to climate change and variability, which have exacerbated these degradation phenomena due to the decrease in rainfall. The central problem of shared aquifers of the West African sub-region is the management of Transboundary groundwater hitherto operated in an uncoordinated manner. Although the countries aspire to achieve the Millennium Development Goals and other similar initiatives, they recognize the urgent importance to combine their efforts to reduce or control these Transboundary risks, and revise their resource exploitation practices within their borders.

2) The baseline scenario and any associated baseline projects;

The proposed project builds on a number of previous projects financed in the framework of the Sustainable Development Action Plan (SDAP) of the Niger Basin in order to achieve the Shared Vision. In addition, the Observatory of the Sahara and Sahel (OSS) has secured support from the African Water Facility (AWF), the Fonds Français pour l'Environnement Mondial (FFEM) to extend their work on the IAS so as to include the interlinked Taoudeni-Tanezrouft Aquifer System (TTAS), and the surface waters of the Niger River Basin. Finally, UNDP will contribute through on-going support from Country Offices. The initiatives that will particularly contribute to the proposed project include:

Initiatives from the African Water Facility and FFEM on groundwater will make significant investments (more than \$ **2.5 million**) to further understand the nature of the Iullemeden Aquifer System (IAS) and the Taoudeni-Tanezrouft Aquifer System (TTAS) resources. These investments build on the foundation provided by the UNEP/GEF MSP, which equipped the three countries with the hardware, software and human capacity to map and model groundwater resources. Additional field studies, mapping and modelling across the larger IAS and TTAS are expected to generate improved descriptions and maps which elaborate the aquifer resources including: geological, hydrogeological, environmental and socio-economic setting; morphology (roof, wall and thicknesses); piezometry; transmissivity and storage coefficients; exploitation analysis; hydrodynamic scheme and its various components (boundary conditions, hydrodynamic and hydrochemical relations and transfer function), among others (Outcome 1). This work will further describe and model the linkages between the TTAS and the IAS and describe and model the hydraulic interactions including the quantity and quality of water exchanged, between the IAS and TTAS with the surface waters of notably the Niger River Basin (Outcome 1).

Under the Niger Basin SDAP investment plan, key investment from the World Bank Project “*Water Resource Development and Sustainable Ecosystem Management (WRDSEM-total finance US\$ 500 Millions, expected co-finance USD\$ 50 millions)*” will improve the regional coordination as well as the development and sustainability of water resource management in the Niger basin. The German Cooperation (BGR/BMZ) is engaged in the sensitization on the ground waters sustainable development issues through the Project: “*Support to the NBA in the ground water management of the Niger basin*” project (expected co-financing of US\$ 2.5million). The French Development Agency, under the “*Niger HYCOS 2 Project (expected co-financing of US\$ 3million)*”, is establishing relevant water resource information system at the scale of the basin, supplied with recent and quality data and easily accessible to all types of users, particularly thanks to Internet technologies. Finally, the Canadian cooperation is strengthening the information and communication system, the NBA technical expertise and the monitoring-evaluation through the “*Capacity building Program of the Niger Basin Authority (expected co-financing of US\$ 2 million)*”. In addition to the initiatives of the SDAP, the project will also build on the national actions for environmental management, particularly those relating to the prevention and risk management but also to the current actions of monitoring of the hydrological network carried out by the national water resource institutions. The contribution of local communities of the nine countries of the basin is also expected in the management of restoration projects. In kind contribution from NBA is expected in term of office space, management of human resources, etc.

The main basic projects of the UNDP, to which GEF will finance additional activities, are covering the components 2 and 4 with a total budget estimated to USD\$ 2.8 million. The UNDP/Cap-Net Program of UNDP will support the national capacity building and that of NBA by contributing to build the capacity of national stakeholders in the use of IWRM tools and climate changes. UNDP country offices will support government and communities on the implementation of ecosystem restoration actions, setting up funding mobilization mechanisms, poverty reduction actions and promoting the participation of the stakeholders. Other on-going UNDP initiatives include the strengthening of national capacities on climate changes risks and vulnerability management (e.g. BCPR Niger, PAGEDD Mali).

Finally, the proposed GEF project will be linked to new **IUCN** initiative “Integrated Management of the Niger River Basin”.

3) Expected contribution from the baseline, incremental cost reasoning and proposed alternative scenario

The proposed GEF project will support the improvement of knowledge-based management and governance of the Niger Basin and the Iullemeden-Taoudeni/Tanezrouft Aquifer System (ITTAS) for the benefit of communities and the resilience of ecosystems.

GEF International Waters funding is requested to complement the AWF-FFEM-OSS-UNESCO baseline project that will develop a better understanding and description of the larger Iullemeden-Taoudeni-Tanezrouft Aquifer System (ITTAS). GEF funding, as described below, is specifically requested to deliver key GEF “signature products” such as a groundwater Transboundary Diagnostic Assessment (TDA), Strategic Action Programme (SAP), strengthened governance arrangements and exchange and sharing of experiences. Given that the riparian countries of the Iullemeden Aquifer System (IAS) benefited from earlier GEF support and the state of knowledge is more advanced than for the Taoudeni-Tanezrouft Aquifer System (TTAS), GEF funding will support more foundational activities in the TTAS, such as climate variability and change assessment, analysis of Transboundary threats, production of a Transboundary Diagnostic Analysis. Building on the earlier GEF work in the IAS, the currently proposed GEF funding will elaborate a Strategic Action Programme (SAP) and strengthen the Consultation Mechanism, among others.

GEF resources will also contribute to the financing of key elements related to ecosystem management and capacity building of Niger Basin Sustainable Development Action Plan resulting from the Shared Vision. It will consolidate the efforts of the NBA and of the countries in promoting conjunctive management of ground and surface waters, promoting shared responsibilities with local communities and civil society in conserving and managing water resources and ecosystem degradation of the Niger Basin and achieving the vision of the SAP. Capacity of national partners will be improved to better support ecosystem-based management. The project components are presented below.

Component 1: Promoting conjunctive management of ground and surface waters

Outcome 1: IWRM supported by a sound understanding of ground water resources and their linkages with surface water systems

Under German Cooperation, on-going efforts are focused on the exchange of geological and hydro-geological data, capacity development in scanning and digitizing maps, management of problems related to groundwater in the Niger River. Additional field studies are on-going from the AWF and FFEM investment, particularly the mapping and modelling across the larger IAS and TTAS to generate improved descriptions and maps which elaborate the aquifer resources: geologic, hydrogeological, environmental and socio-economic setting; morphology; piezometry; transmissivity and storage coefficients; exploitation analysis; hydrodynamic scheme and its various components (boundary conditions, hydrodynamic and hydrochemical relations and transfer function), among others. Recent studies undertaken by OSS under the UNEP/GEF MSP "*Managing risk in the hydrogeological Iullemeden Aquifer System*" produced important results and products such as regional and national summaries on geology/hydrogeology, hydroclimatology, climate change, socio-economy, technical reports on the regional database that registered so far 45,000 water points and Remote Sensing. Regional maps at 1/2000.000 scale are also available for the Iullemeden-Taoudeni/Tanezrouft and include information on geology, hydrogeology, DTM and its derivatives (slopes, drainage, land use, etc.). However, the UNEP/GEF MSP highlighted for the first time the fact that the Niger River constitutes one of the major natural outlets of the system, draining about 125 million m³/year coming from groundwater, which represents almost 80% of the IAS recharge; and further noted the inter linkages between the IAS and the Taoudeni-Tanezrouft Aquifer System. The total estimated amount of “baseline projects” for Component 1 is more than **\$5,9 million** over the lifetime of the project.

Building on the findings of the Niger Basin SDAP, IAS TDA and the substantial new contributions to knowledge and understanding of the ITTAS resources emerging from the baseline project, the GEF increment will establish a sound understanding of the ITTAS groundwater resources and their linkages with surface water systems to support IWRM processes in the Basin. The GEF financing will help to understand the hydrogeological functioning of/and linkages between the Iullemeden, Taoudeni-Tanezrouft Aquifers (ITTAS), other aquifers systems and the surface waters of Niger River Basin through assessments and modelling (**Output 1.1**). In addition, Transboundary threats to the ITTAS, including climate variability and change and also groundwater linkages to the Niger River Basin system, will form the basis of a TDA for the larger ITTAS that will be developed as an annex to the Niger Basin TDA. An IAS Strategic Action Programme (SAP), emphasizing conjunctive management of ground and surface waters, will be elaborated in a complement to the Niger Basin SAP/SDAP and technically cleared by countries in preparation for ministerial endorsement (**Output 1.2**). Capacities of national and regional water managers will be strengthened, through trainings, to undertake TDA/SAP and specialized aspects of aquifer assessment, modelling, planning and management (**Output 1.3**).

Component 2: Sharing responsibilities and benefits with local communities, civil society in conserving basin resources, including groundwater

Outcome 2: Niger Basin Users Associations and National NGO's engaged on basin resources management and conservation for better control of flood/drought/pollution, reduction of pressure on land, forest and biodiversity while improving living conditions of households.

The Niger basin is a key reference area of demographic and economic dynamics because of its vast natural resources. The United Nations Development Programme (UNDP), in its global human development report 2002 estimates the total population of the Niger River basin at approximately 150 millions inhabitants in 2015 (+47%), meaning nearly $\frac{3}{4}$ of the current population in all the countries of the Niger Basin Authority. Important and valuable terrestrial ecosystems and wetlands are identified such as: (i) the mountain forest ecosystems in Upper Guinea, Sikasso region and the basin of Bani in Mali, Adamawa in Cameroon and northern Benin; (ii) the wetlands of the Inner Delta, the Middle Niger and Maritime Delta; and (iii) the protected areas of the Park W of Niger, Chad and northern Cameroon. The sensitivity of the wetlands is related to their dependence on the river hydraulic conditions (water depth, flow, duration and period of submersion) and also on the development of human economic and social activities. Most of these ecosystems are classified (Ramsar sites, national parks, transboundary parks, etc.) and conservation activities are underway at national level to improve their management. However, all these specific sites still continue to experience serious degradation because of deforestation.

To mitigate the degradation of the basin resources, the Executive Secretariat of the Niger Basin Authority (NBA) is implementing the Niger Basin Water Resources Development and Sustainable Ecosystem Management (WRDSEM) Programme financed by the World Bank (five hundred million US \$ for a duration of twelve years 2007-2019). The Programme has three components: (i) Strengthening of Institutions and capacity building of NBA; (ii) Rehabilitation, optimization and development of regional infrastructures; and (iii) sustainable management of priority degraded ecosystems and rehabilitation of small hydraulic infrastructures. The first phase (2007-2012) targeted five member countries of the NBA: Guinea, Mali, Niger, Benin and Nigeria. Under this first phase, the WRDSEM completed many studies on the rehabilitation of small dams combined with the identification of income generating activities, small irrigation schemes, environmental impacts assessments, etc. Training and sensitization of stakeholders were undertaken on the management of biodiversity, land in support to the sustainable management of lands, etc. The total estimated amount of WB **"baseline project' for Component 2"** is estimated to be **\$50 million**.

In addition to these efforts, the Heads of States and Government and technical partners decided in Paris, April 2004, to establish a participation and mobilisation mechanism for civil society in the NBA Shared Vision. From then, various initiatives are implemented to ensure greater involvement of civil society in the conservation and management of the basin's resources, in accordance with the Shared Vision.

- In 2005, the Niger Basin started the process to identify civil society organizations in the nine countries. The first Forum of basin users was organised in Fada Gourma (Burkina Faso) in 2006. This led to the establishment of the Regional Coordination of Basin Users (RC-BU) as a forum for permanent dialogue and consultation of communities using of the basin's natural resources and a framework for their participation in decision-making relating to the process of sustainable development of the basin. Today, the RC-BU includes at least 500 users associations (NGO, CBO, women association, etc.) spread in the nine countries that have established national coordinating units. An advocacy program is undertaken by the RC-BU for better involvement and funding of users associations to implement development projects and programs in the basin area.
- From 2006-2012, the GEF, through the UNDP/RLWDT/NB, funded the first pilot programme that involved grass root communities and gives them the opportunities to develop multiple actions, through pilot demonstration projects and micro projects. According to the final evaluation of the GEF- project RLWDT/NB, the micro-grant component was very innovative embedding the principle of bottom-up planning and the direct beneficiaries (communities) driving the actions. The gender approach consisted of support for dynamic women groups. When the project supported mixed groups, women received economic support as part of a broader package. In addition, the micro grant Programme promoted a participatory integrated management of trans-boundary resources of the basin fostering a positive dynamic of basic endogenous development. The financing and implementation of micro-grant projects relied on actions reconciling the local economic development needs of the users with those of environmental protection. A significant percentage of micro-grant projects seemed to be sustainable in terms of socio-economic and institutional impact. The institutional framework was very innovative, especially with respect to the relationships built between OCBs and elected local governance (Communes).

The implementation of the strategic actions plan of the Niger Basin is an opportunity to replicate and strengthen the experiences of the GEF- project RL.WDT/NB- micro-grant component. Under the SAP, actions and activities related to stakeholder capacity-building are identified such as strengthening the framework for civil society participation. In addition, the SAP recommends to design and implement pilot demonstration programmes and projects to reduce ecosystem stress and improve natural resources management (cf. priorities identified in LTQE 10, 11 & 12).

The GEF increment will engage Niger Basin Users Associations and National NGO's on basin resources management and conservation for better control of flood/drought/pollution, reduction of pressure on land, forest and biodiversity while improving living conditions of households. It is expected that more than 120 local associations from the 9 countries, with about 40% women association, will be involved in the implementation of this component. Specific outputs will include:

- **Output 2.1:** Community actions for the protection of aquatic habitat and wetlands' biodiversity threatened by overexploitation of their resources and by invasive aquatic plant species. An integrated approach will be developed to restore the water and wetlands ecosystems services that directly sustain communities and contribute to the conservation of biodiversity. The project will support the implementation of participative project to restore and manage resources and biodiversity in the wetlands (e.g. Middle Niger). An integrated control programme of invasive aquatic plant species of infested sites in Mali, Niger, Nigeria will be implemented through the organisation of workshops to share experience on preventing infestation by invasive aquatic plant species and the use of combine mechanical prevention (cleaning, weed cutting or hand cutting) and/or biological prevention methods. It will establish a monitoring mechanism and the tracking of lessons learnt for potential replication.
- **Output 2.2:** Local initiatives developed around W Niger, Chad and North Cameroon protected areas to reduce pressure on resources through participatory restoration and management of resources and biodiversity. This will create conditions enabling to generate revenue through the promotion of ecotourism, the experimentation of breeding of wildlife species in peripheral zones, the promotion of community protected areas, etc.
- **Output 2.3.** Efficient community restoration and sustainable management of mountain forest ecosystems implemented in the Upper Guinea, the Sikasso region and the Bani Basin in Mali, Adamaoua in Cameroon and Northern Benin. This activity will help to reduce the degradation of forest cover caused by deforestation, land clearing, wood cutting, bush fires, overgrazing and poor practices of cutting vegetable portions reducing the floristic diversity and habitats. GEF resources will support the improvement of traditional activities like beekeeping, commercialisation of non-timber forest products (NTFP), the promotion of household sustainable energy, and help to design potential pilot projects on REDD+ scheme (Reducing Emissions for Degradation and Deforestation). It will promote the creation of community forests management fir the sustainability of actions.
- **Output 2.4:** Best practices in the management of shared groundwater resources demonstrated through pilots projects, e.g. protection of resources, demineralization of groundwater resources, integrated planning for surface and ground waters, among others.
- **Output 2.5.** Training provided to basin user associations on (i) wetlands and ecosystems to promote the wise use of natural resources, supported by, increased their knowledge; (ii) on entrepreneurship, value chain management, processing of agro-pastoral production and rural finance and organization strategies, etc. to sustain their activities; monitoring micro-grants projects for better efficiency. These trainings will be supported by relevant national extension services, international conservation NGOs (e.g. IUCN, Wetlands International), micro-finance institutions, GEF Small Grants Programme Units, etc.

The UNDP-GEF Small Grants Programme (SGP) units in NBA countries will manage the process and provides grants of \$50,000 to about 120 community-based organizations (CBOs) and non-government organizations (NGOs). A participatory and community-centered approach will be adopted, and the project team will provide overall guidance and provide technical and scientific support to the process. During the first year of the project, livelihood analysis will be undertaken to understand the livelihood context in local community (its human, natural, financial, physical and social capitals). These analyses will help to identify priorities on investments and to detail capacity development activities to be supported by the project. Special considerations will be given to traditional and endogenous knowledge and to socio-economic affordable and low-tech measures

Component 3: Strengthening industries' environmental/social responsibility capacities

Outcome 3: Introduce systematic and integrated approach of industrial competitiveness and environmental/social responsibility through Environmentally Sound Technology (EST) to reduce wastewater discharges and pollution loads in the Niger River

Three factors are contributing to the decrease of the water quality of the Niger River:

a. The industrial pollution

Along the Niger River, industrial activities are concentrated on block-making factories, agro-food industries (milk production factories, slaughtering houses, oil production factories, soap production factories, etc.), textile industries tanneries and dyeing industries. They are source of pollution due to the lack of purification mechanism and system for controlling the rejection of effluents in the river. In Nigeria, several large scale industries are developed alongside the river in which they directly reject, without control of prior processing, their industrial effluents: the Nigerian Sugar Company (Bacita), Premier Brewer, PLC (Onitsha), and petrochemical Industries. The development of cotton cultivation and the promotion of some economic activities in the sectors of agriculture, animal rearing and fishing especially, should contribute to upgrade the industrialisation level in the basin.

b. The mining pollution

The pollution of the waters in the Upper Niger basin in Guinea is mainly due to the presence of mining industries with chemicals used in the mineral processing (namely cyanide for gold processing). In Chad, gold indexes were found in the alluviums of many rivers and streams exploited by gold washing. Other mineral resources are known and some of them have already been exploited: talc, marble, platinum, malachite, copper, and galena. Important limestone deposits must be exploited for the production of cement and lime. Granites are exploited for the production of road aggregates. In Benin, apart from the small holders using traditional rudimentary means and the clandestine gold washers, there is no big activity on the entire national portion of the basin. However, potentialities exist and strategic plans are being developed so as to make dynamic the activities in the sector.

c. The proliferation of aquatic weeds

Among the immediate causes of proliferation of aquatic plant species identified in the TDA/SAP: (i) Nutrients (organic matter and fertilizer), pesticides and chemical substances entering the river; (ii) Direct discharge of pollutant effluents into the principal riverbed. The deep-rooted causes of proliferation of aquatic plant species: (i) Absence of quality standards, laws and standardized regulations concerning water; (ii) Failure to apply regulations on water pollution; Urban growth along rivers; (iii) Lack of education and awareness of populations; (iv) Insufficient monitoring/rigorous and coordinated control of quality of river water; (v) Inexistence of administrative structures responsible for managing the sources of diffusion of pollution in agriculture. The most characteristic invasive aquatic species in the basin are the water hyacinth (*Eichornia crassipes*), the water lettuce (*Pistia stratiotes*) and reeds such as *Typha australis*. The invasion of the river by the proliferation of aquatic plants disrupts the ecological balance, restricts certain economic activities, blocks hydroelectric infrastructures and creates conditions favourable to the development of many disease-carrying aquatic organisms.

The Niger Basin SAP recognized the need for all industries (mining, agro foods, textiles, tanneries, etc.) to take into account, the environmental and social aspects in the rules on the management of the industrial installations in order to encourage the sustainable management of natural resources. SAP options are mainly directed on developing /implementing pollution control measures through assessment and definition of water quality standards to respect. Additional measures are proposed to restore the ecology of the infested sites. However, the **main roots of cause remain the capacity of industries to meet social and environmental responsibilities in their daily process.**

UNDP intervention is addressing the roots of cause of the aquatic weeds and river pollution by building the capacity of industrials on industrial competitiveness and environmental/social responsibility, contributing in the reduction of wastewater discharges and pollution loads in the Niger River. A Public Private partnership will be established to undertake such activities for better participation and coordination. UNDP will engage UNIDO to support the capacity development. UNIDO developed the Transfer of Environmentally Sound Technology (TEST), and tested the tool in several Regions worldwide (e.g. Danube River Basin) within industrial hot spots areas, contributing to prevent discharge of industrial effluents into international waters (rivers, lakes, wetlands and coastal areas) and thereby protecting water resources for future generations. Expected outputs (steps) are following:

- **Output 3.1:** Assessment and selection of participating pilot enterprises. A platform, which includes all the major stakeholders of the programme in the country, will be established to assure that the implementations will focus on national/local priorities and that the results are properly disseminated throughout the country. Enterprises are assessed as candidates for the project and a short-list of the potential enterprises is prepared. An agreement/contract is signed with the selected enterprise broken down into two discrete stages: Stage One - Perform the environmental component of the initial review and provide the enterprise with a ‘diagnostic report’ and proposal for the implementation of the TEST approach, and Stage Two - Assist in implementing the integrated TEST approach itself
- **Output 3.2:** Introduction of the Environmentally Sound Technology (TEST) approach at the enterprise level in three phases.
 - Phase I - Good management practices and process optimization to improve the operation of the existing processes and technology by introducing and integrating three different ‘soft’ and complementary environmental management tools into the company’s daily operations: Cleaner Production Assessment (CPA), Environmental Management Systems (EMS) and Environmental Management accounting (EMA);
 - Phase II -Technology change (EST): cleaner technologies and end-of-pipe solutions to identify the higher capital investment requirements for environmentally sound technologies (EST).
 - Phase III: Evaluation and Sustainable enterprise strategy aims at ensuring the continued use of the TEST approach at the pilot facilities. For the approach to be continued, the experience must be reflected in a facility’s strategic level (e.g. business plan development), which should in turn also lead to new insights and desired changes in the enterprise’s values and strategies.
- **Output 3.3:** Dissemination of TEST programme results. Provision is made to provide case studies to national institutions (counterparts), which in turn are to share the information in these case studies with companies in the country or region. Relaying the successful results made possible at the pilot locations will demonstrate its value to other companies.

UNDP Intervention is consistent with SAP priorities, specifically LTEQO 4 & 7 by providing necessary capacities and tools to industries to meet environmental water quality standards contributing the “Water resource quality guaranteed in a healthy environment”. It complements also the AfDB intervention focused on watershed and sustainable soil management.

Component 4: Capacity building and stakeholders involvement in Niger River ecosystem based management

Outcome 4: National policies and institutions; civil society platforms support Niger River ecosystem based management

As a result of earlier GEF support, which highlighted the transboundary and common problems of the IAS, in 2009 Mali, Niger and Nigeria adopted a regional governance mechanism, the “Consultation Mechanism” for the shared management of the IAS. The preparation of the IAS SAP (Component 1) and other project activities will lay the groundwork to further strengthen and empower policies on conjunctive management of Transboundary ground and surface waters. Building on this, countries will further strengthen the holistic management of Transboundary ground and surface waters by: assessing the current national and regional actors in ground and surface water management and developing options for integrating surface and groundwater governance mechanisms (**Output 4.1**). Through technical support and facilitated negotiations, countries will be assisted to select amongst the available options and implement the agreed option (**Output 4.2**). It should be noted that the constituent countries of the NBA and the larger ITTAS are not identical (Benin, Burkina Faso, Mali, Niger and Nigeria are common to both systems; Cote d’Ivoire, Guinea, Cameroon and Chad are unique to the NBA while Algeria and Mauritania are unique to the ITTAS). Project proponents will evaluate options for reconciling this, in consultation with participating countries, during the PPG phase. The submission of the project document for CEO endorsement will outline a detailed strategy for managing this discrepancy. In addition to these institutional reforms, a number of relevant policy actions at regional (e.g. NBA and Consultation Mechanism) and national (e.g. inter-ministerial committees and ministries responsible for water) levels will further integrate the conjunctive management of transboundary ground and surface waters into SDAP, National plans and strategies (IWRM, NAPs and perhaps sectoral policies of significant water users, e.g. energy and agriculture) leading to mainstreaming and implementation of policy reforms (**Output 4.3**). Through the implementation of this work at national and regional levels, key stakeholders (NBA, Consultation Mechanism and national water deciders and experts) will at the same time be implementing on the ground UNGA Resolution 63/124 on international provisions and best practices in shared aquifer management. .

The Summit of Heads of State and Government approved on July 2007 the Sustainable Development Action Plan of the Niger Basin and its Investment Program (IP 2008- 2027). The Summit agreed also on the creation of a donors' meeting for the implementation of the 2008-2012 priority five-year plan. In 2012, the NBA incorporated the SAP actions into the initial SDAP

and IP documents (2007); thus the revised versions of the SDAP and IP (2012) became the main reference establishing NBA policy and guiding the joint development process led by the Niger basin countries until 2027. Under the UNDP/Shared Water Partnership Programme, the NBA engaged in a consultation process with Parliamentarian and Ministries of Finances of the nine countries to support the implementation of the Investment Plan. GEF resources will reinforce this consultation mechanism by developing/implementing dedicated monitoring and evaluation tools (Work Plan, Aide Memoire, etc.) and facilitating linkages with the existing Donors Platform (**Output 4.4**);

A new IUCN initiative is under development for the identification, establishment and support of a basin network of important inland waters, including Ramsar sites and other protected areas, as a functionally connected and more effectively managed portfolio of priority locations for securing freshwater ecological integrity, assets and service Under GEF resources, Niger Basin member States will develop a platform for cooperative actions and capacity building in transboundary terrestrial ecosystems and wetlands to address current emerging challenges and promote collaborative monitoring mechanisms (**Output 4.5**). Joint monitoring mechanisms will be strengthened /established to address a series of large-scale management priorities including an assessment of habitat connectivity, water resources vulnerability and the status of threatened species, as well as the response of these factors to major ecosystem drivers such as climate change, human development, the spread of invasive species and natural disturbance. Collaboration actions will be also piloted including introductions of innovative/green technologies in sustainable management of natural resource, development of Payment for Ecosystems Services (carbon Credit, Ecotourism), etc.

The WB- WRDSEM Programme is providing 'horizontal' support across the region to help the NBA to consolidate its institutional and legal frameworks and 'vertical' support to countries to improve water resources development and management activities at local and national levels. Under Component 1, means and training are provided on project management to NBA, National Focal Structures and other institutions participating in the implementation and supervision of the project. The CIDA supported Programme on Niger Basin Authority Capacity-Building is making NBA an institution with a legal and institutional framework, an organization that can truly operate and perform on a long-term basis, focusing on the basin's sustainable development for the well-being of communities on the Niger River. However, support to NBA on ecosystem management from academic and research institutes is still insufficient and lacking. Under GEF support, tools and training will be provided to academic and research institutions to provide relevant knowledge and information guiding the management of basin resources, including groundwater, genetic resources, climate vulnerability and risks, etc. (**Output 4.6**). UNDP/ CAPNET Programme will be involved in the process to give substantial support on the training. Linkages will be made with GEF Nagoya Protocol Implementation Fund in supporting scientist in the area of genetic resources.

Finally, transboundary learning mechanisms will be established at community and inter states levels; and experiences shared through website, IWLEARN, technical papers, video, technical forums, GEF IW Biennale Conference, WWF, AMCOW and other relevant forums (**Output 4.7**).

4) Global environment benefits

In the shared groundwater focal area (ITTAS), this project, through the provision of information and support to groundwater management and governance processes, seeks to increase socio-economic resilience. Increased resilience means, for example, that management and mitigation strategies are developed to minimize the potential impacts of variability in water resources availability resulting from extreme climate events (drought, floods). It is important to highlight that in arid and semi arid areas (yearly rainfall amount < 600 mm), the vulnerability of women and men's living in rural zones is critical. Food security for all countries of the Sahel depends in large part on agriculture dependent on rainfall. However, the availability of increasingly erratic surface water resources makes serious problems for agricultural and pastoral activities. The transition from extensive agriculture to intensive agriculture suited to the countries' needs requires an enhancement of the potential irrigable land through the use of these shared groundwater resources.

In the area of water resources management, this project will promote a coordinated and integrated approach to prevent environmental degradation from overexploitation of water resources. The Consultation Mechanism will promote appropriate allocations among competing uses, equitable distribution of benefits and burdens, adequate involvement of both women and men and community participation in addressing sustainability in water resources management. The project will additionally promote gender equity in the areas of management, governance, and policy development. The project will emphasize cross-sectoral, inter-ministerial, integrated ecosystem approaches that rely on consultative processes and equity in gender participation. The project will provide a basis for setting up regional protocols such as the SADC Gender Protocol, which can give strength to arguments to apply Gender Mainstreaming analysis to regional water agreements and processes.

Socio-economic activity in the project area already includes significant participation of women, especially in the production and marketing of agricultural products. Women are also typically custodians of water at the household level. Project efforts to ensure sustainable use and protection of water quality will contribute to sustaining livelihoods and the important roles that women play in them.

Finally, community participation in conservation will increase sustainable practices and better protection of natural resources.

5) Innovativeness, sustainability and potential for scaling up.

<p><i>Innovativeness</i></p>	<p>The project is unique in the West Africa sub-region in terms of providing a consultation mechanism for joint management of groundwater resources of a transboundary aquifer basin, which are often overexploited for drinking water, irrigated agriculture, livestock or mining.</p> <p>The project will promote the understanding of gender concerns and needs in disaster risk reduction. The project will take into account gender concerns considering the fact that the issue of resource degradation and natural disasters (flooding) affects differently men and women and vulnerable groups (children, young and old). The dissemination and sharing of information will be developed and disseminated in order to ensure that women and girls - especially those who are poor or who were denied the right to education - can easily have access to the necessary information. During the formulation phase of the project, a gender expert will be recruited to systematically analyze and address the issues relating to the specific needs of women and men, and the targeted interventions to enable women and men to participate - and also enjoy – in the development efforts.</p>
<p><i>Sustainability and potential for scaling up</i></p>	<p>The project addresses key national development priorities spelled out in the Niger Basin SDAP</p> <p>The focus on capacity building will generate a pool of technical experts that can be utilised for future replication in other parts of the country. Consequently the strong capacity building and participation of local stakeholders in project activities contributes to sustainability.</p> <p>The design principles outlined in Component 3&4 are specifically set out to foster replicability through up-scaling of learning and mainstreaming into policy processes. In particular, this is among the first projects that looks at the conjunctive management of ground and surface waters and as such, will provide lessons for many other river basins and aquifers in Africa.</p>

A.2. Stakeholders: Identify key stakeholders (including civil society organisations, indigenous people, gender groups, and other as relevant) and describe how they would be engaged in project preparation.

<u>Main interveners</u>	<u>Expected roles in Project preparation</u>
<p>Niger Basin Authority, OSS and their National Focal Points</p>	<p>Coordination the PPG process Facilitate involvement of countries and stakeholders participation in identification of project activities and institutional arrangement; Secure Letters Co-financing from development partners; Facilitate organisation of PPG inception and validation meeting of Prodoc at national and local levels Provide technical input in the Prodoc.</p>
<p>Ministries of Water Resources and Environment, Parliamentarian</p>	<p>Participate in meeting and fora for the identification of Project key actions; Contribute technically in the project document during PPG Facilitate the involvement of national partners</p>
<p>Research institutes</p>	<p>Identification of project activities and institutional arrangement Contribute in the designing of Prodoc</p>
<p>Local government</p>	<p>Identification of project activities and institutional arrangement Facilitate the participation of local communities, specifically women Contribute in the designing of Prodoc</p>
<p>Community organisations</p>	<p>Participation in stakeholders consultations Contribute in the designing of Prodoc</p>
<p>Technical partners</p>	<p>Create a synergy among their on-going programs and contribute to the project Contribute in the designing of Prodoc</p>

A.3. Risks: Indicate risks, including climate changes, potential social and environmental risks that might prevent the project objective from being achieved, and if possible, propose measure that address these risks to be further developed during the project design (table format acceptable).

Risks	Level	Mitigation
Political and Institutional risks regarding the large number of countries	Medium/low	Under the NBA, efficient coordination mechanisms (Steering committee, technical direction, national coordination unit, etc.) established to allow good management of the project.
Risks to get traction on needed national reforms to move to effective policy, regulatory and management actions for conjunctive management (such as the challenge to connect land and water uses)	Medium/low	The Head of States and Government Councils and on-going consultative mechanisms established under the NBA will facilitate the moving of effective policy, regulatory and management actions for conjunctive management (such as the challenge to connect land and water uses). The project will develop clear consultative and awareness mechanism and build capacity of stakeholders to support the reform
Climate variability and/or climate change impacts on functioning of the aquifer system	Low-Medium/ Moderate	The baseline projects are making significant efforts to understand the functioning of the ITTAS and the expected impacts of climate variability and change, which will be considered in the planning and management of the system.
Countries lack national capacity to assess and model aquifer systems and to contribute to ecosystem based management	Likely/Low	The whole assessment and modelling process in the baseline project will receive technical support and back-stopping by OSS and UNESCO, who will also build capacity of national technicians in assessment and modelling in order to promote national ownership of the resulting transboundary information. Target training are planned under component 4 to support capacity building of national partners The component 2 of the project will improve the efficiency and sustainability of community actions trough targeted trainings for Niger Basin Users Associations and National NGO's engaged on basin resources management and conservation; Under component 3, capacity of national institutions managing transboundary terrestrial ecosystems and wetlands will be strengthened to address emerging in biodiversity management and academic and research institutions will have relevant knowledge and information guiding the management of basin resources, including groundwater, genetic resources, climate vulnerability and risks, etc.;
Lack of sufficient information to support strategic planning	Likely/Low	Component 1 on assessment and modelling will, through the baseline project, collect adequate information to support management planning. Component 2 will support the improvement of climate data and forecasting tools
Assessments and models are too complex to support strategic planning by managers	Medium/Low	The baseline project also provides significant resources to support the translation or "popularization" of the findings from the assessments and models, which will also be supported by OSS and UNESCO.

Risks	Level	Mitigation
Weak adhesion to regional governance structures or national contributions fail to materialize	Low-Medium/Significant	Mali, Niger and Nigeria have already adopted the Consultation Mechanism for the Iullemeden Aquifer System and countries sharing the larger Taoudeni-Tanezrouft System have requested support in extending the mechanism. Still, efforts will be made in project implementation to raise awareness about the responsibilities of adhering to such regional governance mechanisms.
Regional bodies (e.g. NBA) and countries show little political will to holistically manage ground and surface waters	Low/Significant	Following the assessments from the baseline project, the project will create awareness about the linkages and interdependencies between the Niger River and the ITTAS. Policy and governance activities (e.g. output 3.1) will reinforce and enshrine these linkages in regional and national policies, strategies and plans.
Low participation of communities, specifically women	Low/medium	A stakeholders participation plan will be developed during PPG and apply during project implementation. Key gender markers indicators will be developed and monitor

A.4. Coordination: Outline the coordination with other relevant GEF financed and other initiatives

AfDB “ *Integrated development and adaptation to climate change program in the Niger Basin Programme*”. The two GEF initiatives are complementary and each aimed to implement priorities identified in the SAP and by Niger Basin countries (cf. Annex 1). At institutional level, clear complementary actions are expected with the AfDB GEF project focusing on improving coordination and competencies on: Climate Change adaptation, implementing SDAP/IP & aligning IWRM to national context, data collection and management for environment and climate change & producing/disseminating information between the countries and stakeholders, and on NBA M&E capacity. UNEP/UNDP GEF project will support the sound understanding and mainstreaming of ground water resources and their linkages with surface water system, improving groundwater governance arrangements and linkages to surface waters governance processes, providing relevant knowledge and information guiding the management of basin resources to academic institutions. Synergy is expected in term of dissemination of information to key stakeholders. The UNDP/UNEP project will contribute to the AfDB information-sharing platform by making available results from research on hydrogeological functioning of/and linkages and on climate variability and change. In term of investment, the AfDB project is mainly focused on providing communities with socio-economic infrastructures for socio-economic activities’ adaptation, flood control, infrastructures protection against, etc. An important sub-component will focus on activities for silting control of the Niger River and protection of hydraulic infrastructures including landscape management, treatment of Koris, dunes fixing, protection of banks and forest management. Some others actions are expected in term of development of pollution control strategy and income generating activities. UNDP/UNEP approach is mainly focused on community-based management under the small grant programme aiming to reduce stress and preserve the integrity of ecosystems while increasing livelihoods. Main actions are: sustainable water management, forest & land restoration, community catchment management, biodiversity conservation and pollution control activities. In view of the basin’s needs there is no duplication of activities and synergy is expected in term of sharing tools, experiences and knowledge. For example, experiences from the pollution control at community level can provide good lessons learned to be capitalized into the regional strategy.

Finally in term of coordination, the lead executing organisation is the Executive Secretariat of the NBA through the Division of Operations of the Technical Division who will then delegate the implementation to a Regional Coordination Unit of the Programme (CCRP) for the regional component. In each country, the executing agency is the Ministry in charge of the ABN affairs through which the direction in charge of the SFNs will establish a National Coordination Unit for the Programme (CCNP) to take charge / responsibility of the management and execution of the country. The RCU will coordinate the institutional components while the investment components will implement by the NCUs in each country. The GEF small Grants Units and International NGOs (IUCN, Wetlands International) will support the implementation of actions under Component 2. OSS and UNESCO will be positioned as technical service providers to the NBA, a role that they have played to many other basin authorities. In this capacity, they will execute some specific actions related to groundwater (especially component 1 and outputs

2.4 and 3.1-3.3) which are at the same time dependent on significant blended co-finance from other donors. OSS will lead in the execution of these elements, in close consultation with NBA, and UNESCO will provide additional technical support and backstopping in the development of the groundwater TDA and SAP/SDAP, a role that they have pioneered in other aquifer systems. This work will be conducted in close consultation with NBA and delivered to NBA organs for review and approval.

The projects will establish a connection with the current and future initiatives to be carried out by the main donors by providing the necessary knowledge and tools for an ecosystem based adaptive management. During the Project Preparation Grant (PPG), in-depth consultations will be carried out in order to establish partnerships, practical modalities for cooperation with the above-mentioned on-going initiatives so as to avoid duplication and allow the resources to draw from the progresses and achievements made thanks to such initiatives. A strategy and cooperation plan with the on going and planned initiatives will be prepared during the preparatory phase including a definition of the roles and responsibilities of the main stakeholders.

In addition, the proposed project will establish close linkages to the Niger Basin Observatory (NBO) regarding, for example, biophysical and socio-economic basin-wide datasets. It is also expected that the NBO will serve as one of the custodians of the assessment and modelling data produced in the proposed project. The German Geological Survey Office (BGR) is also providing technical assistance to the NBA in the form a groundwater project and OSS, BGR and NBA have agreed to collaborate on: i) improved understanding of the hydrological functioning of and linkages between the ITTAS and Niger River Basin, ii) capacity for assessment, strategic planning and management of aquifers strengthened (NBA and country members experts) and iii) logistic support.

The proposed project will also benefit from OSS' experience in executing the UNEP/GEF North Western Sahara Aquifer System (NWSAS) project, which supports a consultation mechanism and demonstration projects on groundwater management

The WB/GEF programmatic approach for a sub-Saharan Great Green Wall Initiative (GGWI), includes six of the ITTAS countries and the opportunities for mutual environmental benefits accruing from the overlap between sustainable land management and aquifer management will be explored as the component projects are developed and mature.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1. National strategies and plans or reports under relevant conventions, if applicable i.e. NAPAs, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennale updated Reports, etc.:

This project is implementing the priority actions defined in the **Strategic Action Program (SAP)** of the Niger basin which was approved in November 2010 by the Council of Ministers of the Niger Basin Authority (NBA). The SAP is the main product of GEF project implemented with the support of UNDP and the World Bank and entitled "Reversing Land and Water Degradation Trends in the river Niger Basin" (RLWDT/NB). It is the final outcome of a regional consultation process in which involved the grassroots communities living in the national portions of the basin, the NBA States and the international partners. Its formulation was based on a participative and extended environmental diagnosis and registered the contributions of researchers, academics and members of many NGOs working in the region. This allowed the definition of SAP Vision, the long-term environment quality objectives (LTEQO) as well as the activities to implement for the effective achievement of the vision. Thus, the proposed project will strongly draw from the environment problems of the Niger basin, the weaknesses of the institutional and legal framework and the priorities identified in the SAP, and endeavour for the achievement of the following LTEQO:

- **LTEQO # 3-** *Water resources known, generated in a concerted manner and coverage of the water needs of all the users including those of ecosystems sustainably ensured.* In the context of the proposed project, it is envisaged to strengthen the efforts of integrated water resource management through the development of knowledge and utilization of tools and mechanisms allowing an equitable water allocation according to usages (including those of the ecosystems) and enactment of the Water Charter of the basin. Furthermore, the project will promote water saving irrigation techniques in order to increase water availability.

- **LTEQO # 8-** *Vulnerability of the basin to the problems of climate variability and change reduced.* In the context of the proposed project, the quality of the climate information will be enhanced and the conception norms of the works will be adopted in accordance with the future climate conditions and the enactment of adaptation measures on devastating floods.

- **LTEQO # 9-** *Biodiversity of the wetlands of the Middle Delta, Middle Niger and Maritime Delta and the mechanism of their sustainable management put in place.* This relates to implementation of priority actions in order to preserve these important wetlands.

- **LTEQO # 10-** *Biodiversity of the protected areas of the Niger W, Chad and North Cameroon restored and the mechanism of their sustainable management put in place.* The aim is to implement actions allowing the restoration, conservation and management of the protected trans-boundary areas.

- **LTEQO # 11**-*Mountain forestry ecosystems in Upper Guinea, Sikasso region and basin of Bani in Mali, the Adamaoua in Cameroon and North Benin restored and the mechanism of their sustainable management put in place.* In the context of the proposed project, techniques for restoration and/or preservation of the mountain forestry ecosystems will be promoted at the community level.

The project will also contribute to the implementation of the **Sustainable Development Action Plan (SDAP)** and its Investment Program (IP), strategic reference framework of interventions in the basin, for the section “Protection of the resources and ecosystems”, through the establishment of clear priorities for the actions to carry out in order to solve the priority problems identified in the Trans-boundary Diagnostic Analysis and not taken into account or inadequately dealt with by the SDAP and particularly by the Silting control Master Plan.

The project is consistent with the **Paris Declaration** (April 2004), which lays down the “Principles of Management and Good governance for a sustainable and shared development of the Niger basin”. The environmental principles of this strategy concern: (1) the water resource sharing with sustainable development objectives; (2) the reasonable and equitable sharing of the water resources among the member States; (3) a prior consultation of the States through the Executive Secretariat of the NBA for activities that have significant impact on the water regime; (4) immediate mutual information by member States of any situation liable to have an impact on the riparian countries. This Declaration put clearly the Integrated Water Resource Management (IWRM) at the center of the development process.

Finally, the Project contributes to the materialization of the **Shared Vision**, adopted by the Council of Ministers of the NBA held in Abuja in May 2005. The Shared Vision is stated as follows: ***“The Niger basin, a common space for sustainable development through an integrated water resource management and associated ecosystems, for the improvement of the living conditions and prosperity of the populations by the year 2025”***. This declaration centered on a common space for sustainable development is based on the integrated water resource management and associated ecosystems. The proposed project will implement the component 1 and 3 of the Investment Program resulting from the process of the Shared Vision.

B.2. GEF focal area and/or funds strategies, eligibility criteria and priorities

This project is consistent with GEF Strategy on the International waters such as described in the GEF-5 Final programming document (GEF/R.5/25/CRP.1). The first of the objectives aimed at is that the project serves as catalyst for cooperation among several States, in order to reach a balance in the controversial use of water in the surface and ground water trans-boundary basins, while taking into account the climate variability and change. The proposed project is well consistent with the outcomes and targets of the Objective 1, particularly the Outcome 1.1 as well as the Outcomes 1.2, 1.3 and 1.4. The project relates to the implementation of the Strategic Action Programme (SAP) of the Niger Basin, which was endorsed in 2010 by the member countries of the Niger Basin Authority. The SAP is essentially based on an integrated approach of the sustainable ecosystem management of the river Niger. The project will facilitate institutional and policy reforms (IW-Outcome 1.1), initiated during the development of the SAP, through incorporation of the policy tools in the national legislations for a better management of the biodiversity and wetlands. Furthermore, the project will create the conditions for an adaptive management based on the capacity building of the Environment Observatory, the NBA National Focal Structures and the consultation/participation platforms for an efficient implementation and monitoring of the actions. On the basis of the priorities identified in the SAP and which take into account the outcomes of the various NAPs (National Action Programmes), the project will carry out innovating actions at transnational level, in order to ensure the protection of the water resources and preservation of the degraded ecosystems and highly important wetlands (IW-Outcome 1.3). The potential consequences of the climate change and adaptation process to this change will be integrated in the management decisions stressing an ecosystem tolerance threshold as main theme of the project (IW-outcome 1.4). Additional output is also expected from the project, especially the overall fund mobilization for SAP and communities financing, a better awareness of the public and capacity building of the stakeholders to carry out actions.

B.3. The GEF agency comparative advantages for implementing this project

The project entitled « Reversing Land and Waters Degradation Trends in the river Niger » (RLWDT/NB) which received a grant of GEF and is implemented by the NBA with the support of UNDP and the World Bank, prepared the Strategic Action Programme of the environment of the Niger basin by the year 2027.

UNDP has the primary focus to reduce poverty through improving management and governance of water resources. As highlighted in the new UNDP Strategic Plan 2014-2017, the norms, rules, regulations and institutions governing access to natural resources are now at the heart of the struggle to eliminate poverty and must receive the same attention in development thinking, policy and management, as economic growth. The outcomes and outputs of the Strategic Plan’s Integrated Results and Resources Framework (IRRF) address this specifically including Outcome 2: Citizen expectation for voice, development, the rule of law and

accountability are met by stronger systems of democratic governance; Output 2.5 Legal and regulatory frameworks, policies and institutions, enabled to ensure the conservation, sustainable use, and access and benefits sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation” and Indicator 2.5.2 Number of countries implementing national and local plans for Integrated Water Resources Management. Additionally, the project supports Strategic Plan Outcome 7: Development debates and actions at all levels prioritise poverty, inequality and exclusions, consistent with our engagement principles”, Output 7.6 Innovations enabled for development solutions, partnerships and other collaborative arrangements and Indicators 7.6.1 Number of new public-private partnership mechanisms that provide innovative solutions for development, and 7.6.2 Number of pilot and demonstration project initiated or scaled up by national partners (e.g. expanded, replicated, adapted or sustained). These UNDP Strategic Plan outcomes, outputs and indicators are directly reflected in this project and will be strengthened by the guidance of UNDP.

As articulated in its 2013 ‘Contribution to the UNDP Strategic Plan 2014-2017’, the vision of UNDP Water and Ocean Governance is “to achieve integrated, climate-resilient, sustainable and equitable management of water and ocean resources, and universal access to safe water supply and sanitation, through improved water and ocean governance.” Specifically UNDP Water and Oceans three inter-linked thematic areas, strategic activities and strategic levels pertain directly to this project. These include UNDP’s work with climate resilient access to water supply and sanitation, integrated approaches to water resources... and transboundary waters management. UNDP engages in capacity development, knowledge management, programme development and implementation and applies strategic activities and thematic priorities at different geographic levels – local, national, regional, and global - to connect the dots between these levels for better impacts on policy development and programme delivery.

As a GEF implementing agency, UNDP offers countries specialized technical services in relation to water and oceans. UNDP manages sizeable portfolios on integrated water resources management; multi-country management of transboundary rivers, lakes and aquifers; and climate change adaptation. The UNDP/GEF Water & Oceans portfolio supports over 100 countries in implementing over 50 projects. The Projects represent an investment worth over \$700 million in multiple development benefits in these countries. As countries improve governance of waters, they also augment opportunities for enhancing sustainability, efficiency and equity. Improving governance also gives stakeholders, particularly women and other marginalized groups greater prospects for exerting influence.

UNDP has strong comparative advantages. Organizations that work with UNDP draw on a number of strengths and opportunities:

- UNDP has an existing mandate on governance and capacity development, and is a world leader in the field.
- UNDP has a mandate to convene and coordinate, and plays a lead role in UN system coordination;
- UNDP is a trusted, impartial, long-term facilitator and development partner at local, country, regional and global levels which is critical to the challenges of this particular project;
- UNDP has a high level access to national development planning processes;
- UNDP is not limited to a certain water/ocean sub-theme or target group and applies an integrated human rights-based and mainstreaming approach to addressing transboundary water issues, advancing the management of water resources, water supply and sanitation, and water related climate change adaptation.

Finally, UNDP is relying on its presence on the field in the nine countries of the Niger basin. Moreover, the project will be directly taken in charge by a regional technical adviser of the UNDP based in the region and by the senior technical adviser at UNDP headquarters who will be in charge of the overall supervision of the UNDP ocean governance program.

As the only United Nations organization whose mandate and core business is the environment, UNEP brings together unique institutional and professional capacities to the GEF’s work. UNEP has a strong record in fostering technical and institutional cooperation at multi-country and multi-organization levels. UNEP’s three primary strengths or comparative advantages within the GEF IW focal area include: catalyzing regional and multi-country cooperation, scientific assessment, and development of innovative approaches and tools. This project strengthens regional cooperation and will deliver assessments, strategic plans and innovative solutions through demo projects and as such, the proposed project capitalizes on UNEP’s comparative advantages within GEF IW. Many years of direct experience of working with IWRM has provided UNEP with a wealth of experience in knowledge management, science - policy linkages and capacity building which will serve this project. UNEP has a strong record

in groundwater management in Africa, having provided technical support to AMCOW for the establishment of the African Groundwater Commission.



UNEP has a large GEF IW portfolio and experience as IA for similar groundwater projects, such as the *UNEP/GEF MSP Reducing risks to the sustainable management of the Northwestern Sahara Aquifer System* and the *UNEP/GEF MSP Managing of hydrogeological Risks in the Tullemeden Aquifer System*.

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

A. RECORD AND ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S) : (Please attach the operational focal point endorsement letter with the template. for the SGP, use this OFP endorsement letter)

NAME	POSITION	MINISTRY	DATE DD/MM/YYYY
Mr. Delphin AIDJI	Secrétaire Général Adjoint du Ministère	Ministère de l'Environnement, de l'Habitat et de l'Urbanisme, Bénin	23 July 2013
Mr. Mamadou HONADIA	Permanent Secretary	Permanent Secretariat for the National Council for Environment and Sustainable Development, Burkina Faso	14 May 2013
Mr. Justin NANTCHOU NGOKO	Director	Ministry of Environment and Nature Protection, Cameroon	6 June 2013
Mr. Gaourang MAMADI N'GARKELO	Directeur de Cabinet du Ministre de l'Environnement	Ministère de l'Environnement, de la Qualité de vie et des Parcs Nationaux, Tchad	12 July 2013
Mme Alimata Kone-Bakayoko	Permanent Secretary	Ministry of Economy and Finance, Côte d'Ivoire	24 July 2013
Mr Ahmadou Sebory TOURE	Director General	Fonds de Sauvegarde de l'Environnement, Guinée	13 May 2013
Mr Sekou KONE	Director	Agency for Environment and Sustainable Development, Mali	18 July 2013
Dr. Mohamed Yahya LAFDAL	Directeur de la Programmation, de la Coordination Intersectorielle et de la Coopération (DPCIC)	Ministère délégué auprès du Premier Ministre chargé de l'Environnement Mauritanie	21 July 2013
Mr. Yaye SEYDOU	General Director of Planning	Ministère du Plan de l'Amenagement du Territoire et du Développement Communautaire, Niger	10 July 2013
Mr Momoh Tahir ABU	Director	Federal Ministry of Environment, Nigeria	3 September 2013

B. GEF AGENCY (IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation.					
Agency Coordinator, Agency Name	Signature	Date (MM/dd/YY YY)	Project contact person	Teleph one	E-mail address
Adriana Dinu UNDP-GEF Officer in Charge and Deputy Executive Coordinator		January 09, 2014	Mame Dagou Diop	+27 12 354 8115	mame.diop@undp.org
Maryam Niamir-Fuller Director, GEF Coordination Office, UNEP		January 09, 2014	Kelly West	+254 20 762 4147	kelly.west@unep.org