



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL SIZE PROJECT

TYPE OF TRUST FUND: GEF- TRUST FUND

PART I: PROJECT INFORMATION

Project Title:	INTEGRATED DEVELOPMENT FOR INCREASED RURAL CLIMATE RESILIENCE IN THE NIGER BASIN.		
Countries:	Guinea, Ivory Coast, Mali, Burkina Faso, Niger, Benin, Chad, Cameroun, Nigeria	GEF Project ID:	5487
GEF Agencies:	AfDB	GEF Agency Project ID	P-Z1-AAF-006
Other executing partner (s):	NBA	Submission date:	
GEF focal area (s):	Multi-focal Areas	Project duration (months):	48
Name of parent program (if applicable): For SGP + For SFM/REDD+ For PPP		Agencies fees (\$):	1,081,333

A. INDICATIVE FOCAL AREAS STRATEGIC FRAMEWORK:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
IW-1: Catalyze multi-state cooperation to balance conflicting water uses in transboundary surface and groundwater basins while considering climatic variability and change	GEFTF	5,860,142	40,000,000
IW-3: Support foundational capacity building, portfolio learning and targeted research needs for joint, ecosystem-based management of transboundary water systems	GEFTF	3,547,424	12,000,000
CCM-5: LULUCF: Promote conservation and enhancement of carbon stocks through sustainable management of land use, land-use change, and forestry	GEFTF	1,144,286	5,000,000
LD-2: Forest Landscapes: Generate sustainable flows of forest ecosystem services in dry lands, including sustaining livelihoods of forest dependant people	GEFTF	811,140	3,000,000
SFM/REDD+ - 2: Reducing Deforestation: Strengthen the enabling environment to reduce GHG emissions from deforestation and forest degradation and enhance carbon sinks from LULUCF activities	GEFTF	651,808	1,000,000
Total Project Cost		12,014,800	61,000,000

B. INDICATIVE PROJECT FRAMEWORK

PDO: Increase the water security, climate resilience and natural resources management at regional, sub-basin and community levels in the Niger Basin by contributing to SAP/SDAP implementation and outcomes of NBA's Strategic Plan.

Project Component	Grant Type ¹	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
Component 1 (IW) Increased water security and	TA	Project interventions produce sustainable benefits, and	1.1: Transboundary threats of climate variability and change and potential impacts	GEFTF	1,750,000	6,750,000

¹ TA includes capacity building, and research and development.

climate resilience at regional level		increased water security and climate resilience at regional level	<p>on SAP/SDAP investments are assessed.</p> <p>1.2: Tools and guidelines for building climate resilience at sub-basin and community level are developed</p> <p>1.3: Lessons learned and disseminated for enhanced climate resilience of rainfed agriculture on pilot basis in five agro-climatic zones of the Niger Basin</p> <p>1.4: Lessons learned from watershed management interventions up-scaled to integrated watershed management plans for each member country</p>			
Component 2 (IW): Building resilience to climate change at sub-basin and watershed level in the Niger Basin	Inv	Project interventions produce sustainable benefits, and increased water security and climate resilience at sub-basin, watershed and community level	<p>2.1: Climate resilience of multiple communities in five selected watersheds (one per representative sub-basin) is increased and best practices are demonstrated.</p> <p>2.2: Community-based integrated watershed management plans are prepared and implemented for selected watersheds in five representative sub-basins of the NRB; local capacities on land and soil conservation are strengthened</p>	GEFTF	5,450,472	34,700,000
Component 3 (IW): Capacity building at regional, national, sub-basin and community level	TA	Enhanced capacity of regional, national and community level stakeholders to sustainably manage natural resources, accounting for climate change and variability	<p>3.1: Capacities of NBA and the participating national agencies for coordination and implementation of climate resilience interventions are strengthened.</p> <p>3.2: Capacities and ownership of communities for integrated soil and water conservation and enhanced climate resilience at watershed level in selected sub-basins are strengthened.</p> <p>3.3: Transboundary learning mechanisms, communications,</p>	GEFTF	1,500,000	6,750,000

			consultations and KM are established at community, national and regional levels, and experiences are shared through multiple forums 3.4: Mechanism for Payment for Environmental Services (PES) explored and established on pilot basis			
Component 4 (STAR): Sustainable land and forest management for climate change mitigation and improved livelihoods in Burkina Faso	Inv	Promote conservation and enhancement of carbon stocks and other ecosystem services through sustainable forest management	5.1: Restoration and enhancement of carbon stocks in forests (CCM-5) 5.2: Forests are under good management practices (LD-2) 5.3: Enhanced capacities of local stakeholders and communities for sustainable forest management in the context of REDD+	GEFTF	2,411,269	8,300,000
Subtotal					11,111,741	56,500,000
Project Management Cost (PMC) ²				#below	903,059	4,500,000
Total Project Cost					12,014,800	61,000,000

Breakdown of the Project Management Cost (PMC) by TF and Focal Areas:

GEF Agency	Type of Trust Fund	Focal Area	Grant Amount (\$)
AfDB	GEFTF	IW	707,094
AfDB	GEFTF	CCM	86,007
AfDB	GEFTF	LD	60,967
AfDB	GEFTF	SFM	48,991
TOTAL (US\$)			903,059

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
GEF Agency	African Development Bank	Soft Loan	52,000,000
GEF Agency	African Development Bank-FIP	Soft Loan	9,000,000
Total Co-financing			61,000,000

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

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (\$) (a)	Agency Fee (\$) (b) ²	Total (\$) c=a+b
AfDB	GEFTF	International Waters	Benin, Burkina Faso, Cameroun, Chad, Cote d'Ivoire, Guinea, Mali, Niger and Nigeria	9,407,565	846,681	10,254,246
AfDB	GEFTF	CCM	Burkina Faso	1,144,286	102,986	1,247,272
AfDB	GEFTF	LD	Burkina Faso	811,140	73,003	884,143
AfDB	GEFTF	SFM	Burkina Faso	651,808	58,663	710,471

² To be calculated as percent of subtotal. Cost of PMC is higher than normal due to the involvement of 9 countries and NBA in the project and its large geographical spread

Total Grant Resources	12,014,799	1,081,333	13,096,132
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1 In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

2 Indicate fees related to this project.

E. PROJECT PREPARATION GRANT

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

- | | <u>Amount
Requested (\$)</u> | <u>Agency Fee
for PPG (\$)³</u> |
|--|----------------------------------|--|
| • No PPG required. | -- 0-- | --0-- |
| • (upto) \$50k for projects up to & including \$1 million | _____ | _____ |
| • (upto)\$100k for projects up to & including \$3 million | _____ | _____ |
| • (upto)\$150k for projects up to & including \$6 million | _____ | _____ |
| • (upto)\$200k for projects up to & including \$10 million | _____ | _____ |
| • (upto)\$300k for projects above \$10 million | 400,000 ⁴ | 36,000 |

PPG AMOUNT REQUESTED BY AGENCY (IES), FOCAL AREA(S) AND COUNTRY (IES) FOR MFA AND/OR MTF PROJECT ONLY

Trust Fund	GEF Agency	Focal Area	Country Name/ Global	(in \$)		
				PPG (a)	Agency Fee (b)	Total c = a + b
GEF TF	AfDB	International Waters	Benin, Burkina Faso, Cameroun, Chad, Cote d'Ivoire, Guinea, Mali, Niger and Nigeria	313,199	28,188	341,387
GEFTF	AfDB	Climate Change	Burkina Faso	38,096	3,429	41,525
GEFTF	AfDB	Land Degradation	Burkina Faso	27,005	2,430	29,435
GEFTF	AfDB	SFM	Burkina Faso	21,700	1,953	23,653
Total PPG Amount				400,000	36,000	436,000

MFA: Multi-focal Area projects; MTF: Multi-Trust Fund projects

³ PPG fee percentage (9%) follows the percentage of the GEF Project Grant amount requested.

⁴ Cost of PP is higher than normal due to the involvement of 9 countries and NBA in the project and its large geographical spread

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 Basin (NRB)

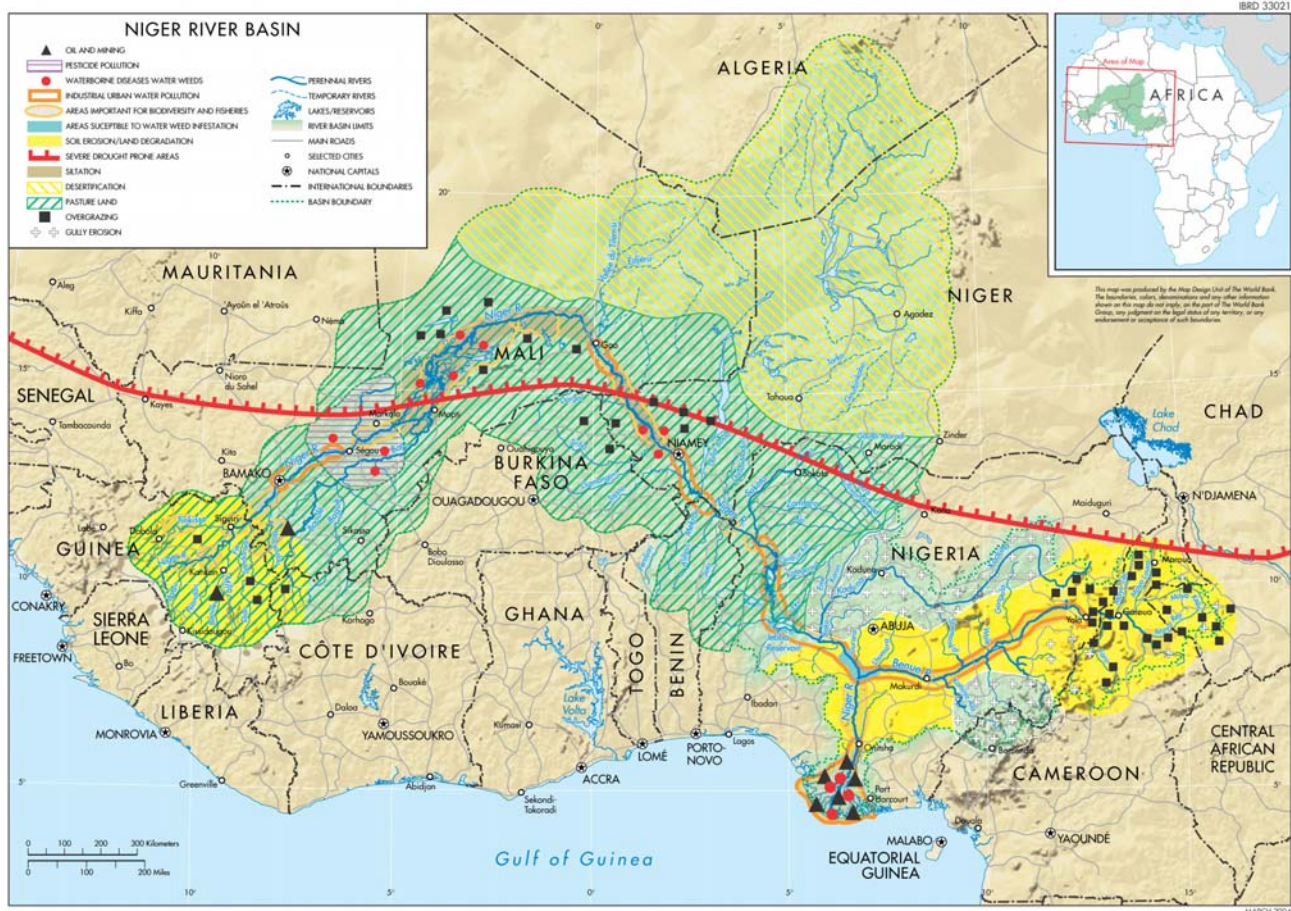


Fig. 1: The Niger Basin (source: Project Appraisal Document Niger GEF Project, World Bank, 2004)

The Niger River is the 3rd longest river in Africa (4,100 km), after the Nile and the Congo Rivers, and is the most important river in West Africa. The basin (Figure 1) covers a surface area of about 2.2 million km² of which about 1.4 million km² is hydrologically active. The basin has a 'boomerang' shape that reflects the rivers' unusual flow path as well as the geologic history of the region. The main stem of the Niger rises in the Guinean Daro Massif and is reinforced by abundant tributaries coming from the Fouta Djallon Highlands in Guinea. The Niger River is joined by the Bani River where it enters the Inner Delta in Mali. At Tossaye (Taoussa), the river turns southeast forming the Great Bend and flows on through Niger to Lokoja in Nigeria, where it receives its largest and most important tributary, the Benue River. From there, the enlarged Niger runs directly south to empty into the Bight of Benin through a network of distributaries in Nigeria's Terminal Niger Delta. The Benue River rises from Cameroon and Chad and drains the eastern part of Nigeria before joining the Niger River in Lokoja, contributing about 100 km³ per year to its flow (about twice as much as originating from the main stem Lower Niger River in Nigeria). Owing to its flow path, the Niger Basin cuts across all the major climatic zones of West Africa. The Basin is conventionally divided into five distinct bioclimatic zones, based on temperature, vegetation types and characteristics, and the total amount of rainfall received during the year. These include the Guinean or Equatorial forest zone, the Transitional tropical belt, the Sudan Savanna zone, the semi-arid or Sahel savanna belt, and the desert region. Most hydro-climatic variables, including rainfall, temperature, humidity, evaporation and runoff, exhibit steep gradients as one moves inland

from the coast. The basin is conventionally sub-divided into five hydrographic regions, namely the Upper Niger, the Inner Delta, the Middle Niger, the Benue, and the Lower Niger Basins.

The Niger River is the economic mainstay for the nine riparian countries in the Basin – Benin, Burkina Faso, Cameroon, Chad, Ivory Coast, Guinea, Mali, Niger and Nigeria. Five of these countries are located on the main stem of the Niger River⁵. The Niger River gave birth to great civilizations of farmers, fishermen and cattle breeders. The Basin has tremendous potential for infrastructure development, including i) hydropower (the presently installed capacity is about 2,100 MW – mostly in Nigeria - with an estimated potential of 30,000 GWh/year and a current exploitation of about 7,000 GWh/year); ii) a five-fold expansion of irrigation (to 1.25 million ha in the rainy season and 0.6 million ha in the dry season); iii) navigation; iv) fish farming (estimated at 7.5 tons per km of watercourse per year), and v) the potential to create 1.7 million jobs. However, this potential remains significantly under-tapped, which limits economic growth and the improvement of livelihoods in the Basin. This has contributed to chronic poverty in the region, including food-insecurity, malnutrition, social and economic impacts of HIV/AIDS and women's limited access to or control of productive resources despite gender equality legislation in many of the riparian countries.

The population in the basin is highly vulnerable. Seven of the nine Basin countries are among the 20 poorest countries in the world, with large income disparities in the richer basin countries. More than 50 percent of the population is under the age of 15. About 70% of the 100 million people in the Basin live in rural areas where food security and social well-being are largely dependent on unreliable rainfall and highly-variable river flow patterns. About 60% of the population of the basin does not have access to potable drinking water and 75% of that fraction relies on groundwater. The Basin's population is highly impacted by extreme climate and rainfall variability, both of which may be exacerbated by climate change. The vulnerability of people in the Basin is further exacerbated by political instability (including the recent conflict in Mali), and sub-regional security threats remain. Economic growth, regional integration, reducing conflicts over water resources and improving access to remote areas could help to stabilize the region.

The Niger River Basin (NRB) has a history of marked climate variability with significant socio-economic and environmental impacts. This is confirmed by historical flow records for the period 1900-2000 and other historical information on the Basin's climate. As recently as 500 years ago the climate of the arid and semi-arid parts of the basin was markedly different from what it is today. Although the evidence for such climatic shift is indirect, it is very persuasive. Scholars note that the major Sahelian empires as well as centers of military, economic and political power, such as Timbuktu and Gao, would never have risen to the prominence they did under current climatic conditions. It is unknown how often such major climatic shifts occur. Oral historical accounts predating instrumental measurements make frequent reference to occurrences of clusters of dry or wet years. Other evidence also supports the occurrence of such multi-year and even multi-decadal droughts, including multiple instances when Lake Chad dried up completely. Such context suggests that the period with droughts between 1970 to about 2000 may not be unusual, albeit of infrequent occurrence in the Niger Basin and West Africa. Tarhule et al⁶ (2013) have shown that an abrupt change occurred in the rainfall and streamflow records for all parts of the Niger basin during the late 1960s. Comparison of the pre-and post-change point means shows that the average annual precipitation after the abrupt change point is about 15% lower than the pre-change point in the Upper and Middle Niger Basins, and about 10% in the Lower Niger and Benue Basins. The commensurate differences in streamflow are about 2.0 to 2.5 times greater, i.e. 35% in the Upper and Middle Niger and 20% to 25% in the Benue Basin.

Rainfall and runoff recovery within the Upper Niger Basin is progressing at a slower rate than elsewhere in the basin. In the Lower Niger, including the Benue Basin, rainfall has recovered to within about 5% of pre-1970 levels, to an extent ending the period of below average rainfall conditions that have persisted during the 1970s and 1980s. In contrast, annual rainfall is still well below the pre-1970 values in the Upper Niger Basin. This regional disparity is significant since the Upper Niger Basin is a major water source region (called "water tower") for the Niger River. The hydroclimatic variability observed since the late 1960s represents the conditions to which the Niger Basin must adapt. The impacts of climate change may add to and exacerbate this historical pattern. Therefore, learning lessons from managing the present impacts of intra-seasonal and inter-annual variability of the Basin's climate has the potential to better prepare water managers for dealing with long-term climate change impacts. Due to such adaptive learning, impacts of the more severe droughts of the 1980s were actually less devastating than the impacts of the less severe droughts of the 1970s.

⁵ The five countries on the main stem of the Niger River include Benin, Guinea, Mali, Niger and Nigeria.

⁶ Tarhule A., J. T. Zume and J.G. Grijzen, 2013: Exploring temporal hydroclimatic variability in the Niger Basin (1901-2006) using observed and reanalysis data, *International Journal of Climatology*.

In term of biodiversity, the basin is home to a highly diversified fauna with about 36 fish families and more than 50,000 birds representing 56 species. Mammals such as 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 have been recorded in Transboundary Reserves. The River's Inner Delta in Mali is of considerable economic and ecological importance and is inhabited by about one million people. This number rises during drought periods as people take refuge from their hardships. About 2 million cattle, and about as many sheep and goats, also frequent the delta annually. Annual fisheries production may exceed 100,000 tons during wet years.

Particularly since the onset of the droughts in the early 1970s, the Niger Basin has been under threat from desertification and unsustainable natural resource exploitation practices with alarming consequences. The transboundary diagnostic analysis (TDA), carried out under the previous Niger GEF project (2005 - 2011⁷) revealed that most of the environmental problems derive 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). The TDA led to the development and adoption of a Strategic Action Program (SAP) for the Niger Basin in 2010, which was integrated in 2012 with the Sustainable Development Action Plan (SDAP) for the Basin.

Barriers

Barrier #1: Limited knowledge and low institutional capacity: Water resources of transboundary river basins in this part of Africa are generally insufficiently known and increasingly threatened by rising demands for water, adverse effects of climate and hydrological variability and change and degradation of water quality due to pollution from various sources. The insufficiency of reliable information on past and present hydro-meteorological conditions and future climate changes makes it difficult for the governments, NBA and water managers to assess suitable adaptation options and to develop guidelines and standards for planning and water management purposes.

There are many legal instruments for water and environment management, but these are still insufficiently enforced at the national level (e.g. the Water Charter, UN Resolution 63/124, etc.). Moreover, the institutional frameworks, especially the national focal structures (NFS) of the NBA, are facing problems of limited technical capacity 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 level of monitoring (including availability of equipment) is still too limited to support decision making in basin management. Civil society remains weakly involved in the management of the basin and community initiatives.

Barrier #2: Insufficiency of sustainable financing mechanisms: The overall cost of SAP implementation in the basin is estimated at 1,600 million USD and implementation of the full (pre-2012 version of) SDAP at 8,000 million USD. The required financing of SAP activities to carry out at short-term (2013-2017) is estimated at about 500 million USD, i.e. 35% of the total required 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 #3: Poor transboundary natural resources management as impediment to development: Major environmental challenges faced by the Niger Basin are related to the degradation of natural resources in its catchment areas. Natural resources are the basis for rainfed agricultural production, on which a large part of the Basin population still depends for livelihood. Poverty and unsustainable practices of exploitation and management of natural resources are perpetuating, including poor agricultural practices such as overgrazing, bush fires, extensive agricultural production practices, clearing for firewood or construction, misuse of pesticides, etc. These practices are the main cause of the wide spread land, water and ecosystem degradation observed in the Basin, which in turn cause again higher levels of poverty and more pressure on the natural resources of the watersheds, thereby resulting in increased conflicts about the use of natural resources. The fragile natural eco-systems of the Basin are subject to intense wind and hydrologic erosion, siltation and desertification. These processes threaten natural habitats and fauna, arable lands and pastures, as well as civil works such as bridges, roads, hydro-agricultural developments, etc., and may also have an impact on the hydrological cycle. The situation is further complicated by the region's vulnerability to climate variability, which has exacerbated these degradation phenomena due to the decrease in rainfall since the late 1960s. Priorities and issues differ depending on the sub-region, e.g. in the Sahel-Sahara zone of the basin, siltation combined with the reduction of runoff has several negative impacts, including (i) the decline of groundwater levels and available water resources, (ii) a considerable reduction of traditionally flooded areas as well as a loss of arable land or water for pasture, (iii) a greater competition for - and pressure on - the available resources

⁷ GEF grant for the project 'Reversing Land and Water degradation trends in the Niger River Basin (2005 – 2011)'

required to satisfy the needs of the rural population such as fishing, agriculture, wood (forestry) and livestock farming, which in turn leads to numerous conflicts, (iv) a considerable reduction in navigation (siltation of the major river bed, extension of sand islets and sand benches), and (v) a gradual siltation of watering points, reservoirs, irrigation systems and other civil works. Thus, halting and reversing land degradation across the basin is a critical step towards improving the livelihoods of the population in the basin. Natural resources management investments and priorities as identified in the SAP are needed to support a sustainable development of the Basin. Implementation of a livelihood-based watershed management approach is a major priority in order to address environmental degradation and poverty.

The updated SDAP/SAP (2012) along with the Water Charter agreed by the member countries of NBA form the framework for transboundary natural resources management in the Niger Basin. At national levels numerous factors constrain progress, including centralized water resources management (WRM) systems and a multiplicity of actors, inadequate numbers of qualified personnel; inadequate environmental legislation, policy and regulatory frameworks; unavailability of basic environmental management information; low public awareness on environmental issues; and limited consultation with local communities, civil society organizations, private sector and the public. Given their transboundary nature with cross-cutting interests and impacts (e.g. impacts of increased water storage and irrigation upstream in the Basin on hydropower generation further downstream in the Basin), there is a critical need to ensure availability of adequate water in terms of quantity and quality for the achievement of all interventions proposed in SDAP/SAP. This requires a strong Integrated Water Resources Management approach in the Basin to ensure that water and other resources are equally shared and wisely used for the well-being of all peoples in the basin.

Barrier # 4: The need to address climate change impacts in SAP interventions: NBA stakeholders have identified climate change as one of the priority environmental problems to be addressed by the SAP. While the presently available ensemble of climate projections does on average not project a significant change in long-term average annual precipitation across the Niger Basin, some of the individual climate models project significant reductions in precipitation, while others project significant increases. It is also true that the presently available GCMs do not perform well for West and Central Africa and the hydro-meteorological variability of the Basin region may well increase in the future, including increased variability of the duration of the rainy season. Assessments in the TDA/SAP indicate that climate change will increase the vulnerability of ecosystems in the Niger Basin, due to temperature increases, changes in precipitation patterns, more frequent severe weather events and prolonged droughts. Due to the aridity prevailing over a large part of the basin, the availability of water and its distribution in time and space play a major role in the potential future changes to ecosystems and to the development of the basin. It is in response to this climate variability and the risk of regular droughts that the SDAP focused on the construction of large dams and reservoirs such as Fomi (Guinea), Taoussa (Mali) and Kandadji (Niger), in order to expand irrigated agriculture and hydropower generation, and to maintain minimum environmental river flows during the dry season throughout the Inner Delta and the Middle and Lower Niger. Sustainability of these infrastructures does not only require coordinated water and reservoir management between riparian countries, but also transboundary cooperation on erosion control in upstream catchments to avoid large sediment depositions in the reservoirs (note that the Inner Niger Delta functions as a huge natural sediment deposition area, from which the “black flood” emerges, thereby protecting Taoussa and Kandadji reservoirs from excessive sediment influxes).

Despite these investments in large infrastructure, still about 70% of the Basin population will live in rural areas where food security and social well-being are directly dependent on local rainfall (rainfed agriculture) and existing small scale water infrastructure. This population is highly vulnerable to the present climate and hydrological variability, which may be exacerbated by the effects of climate change. Therefore, there is a need to invest locally at the community level to mobilize water for agriculture and livestock development (as proposed to be funded from GEF-IW resources under component 2) in order to increase the resilience of these vulnerable groups to the potential adverse effect of climate change. Similarly, deforestation and forest degradation are caused by agricultural expansion, overgrazing, bush fires, increasing droughts, and over-exploitation of forest resources. Thus, there is also a need to invest locally at the community level in reforestation (as proposed to be funded from GEF-STAR resources under component 4 for Burkina Faso). These proposed investments will increase the resilience of rural populations to the present climate variability. The SAP seeks to reduce the vulnerability of the rural population to the impacts of climatic variability and change with prioritized actions under LTEQO 8.

2) The baseline scenario and any associated baseline projects:

Over-arching Niger Basin development framework: The Niger Basin Authority (NBA) is the regional river basin organization with the mandate to promote cooperation among the nine member countries in developing and managing the Basin’s

water resources⁸. Since around 2000 the cooperative framework for the Basin was gradually strengthened by the Heads of State of the nine riparian countries and NBA's Technical and Financial Partners (TFP) under the "Shared Vision Process". The TFP of NBA signed in 2004 in Paris a "Cooperation Framework for NBA Partners". Since then the NBA has made significant progress in firmly establishing itself as the Basin's Authority. In 2008 the Heads of State of the member countries approved the Sustainable Development Action Plan (SDAP), along with an 8 billion USD Investment Program (IP) over 20 years (or more) and the Water Charter for the Niger Basin, as a mechanism to address regional development issues through a basin-wide investment framework for developing infrastructure, reducing poverty and promoting growth. SDAP focuses on three priority areas for sustainable development, i.e.: (i) the development of socio-economic infrastructure; (ii) the protection and preservation of the basin's ecosystems and natural resources; and (iii) capacity building and participation of stakeholders in IWRM, and as such aims to provide new social and economic opportunities for the more than 100 million people living in the Niger Basin. A major part of SDAP's Investment Program focuses on the construction of three new dams⁹ on the Upper and Middle Niger with associated irrigated agriculture and hydro-energy generation, along with the rehabilitation of existing dams¹⁰, and improved navigation and water supply. The investment program encompasses a broad based mix of large scale transboundary infrastructure investments¹¹, small scale infrastructure investments in all 9 countries (rehabilitation and valorization of small dams, development of lowlands, agro-forestry); ecosystem protection (regulatory systems, information tools including modeling of low flows, and investments in erosion and siltation control); and institutional capacity building (legal systems and tools, strengthening the NBA hydrological Observatory and sub-basin committees; and basin stakeholder mobilization).

The Water Charter aims at encouraging transboundary cooperation based on solidarity and reciprocity for a sustainable, equitable and coordinated use of the Niger Basin resources. It provides mechanisms for notification of proposed developments by the riparian countries and an institutional framework for coordination and resolution of conflicts. The Water Charter has been effective since July 2010, but no member countries have ceded yet any sovereignty over their strategic water resources to the NBA; thus NBA's ability to execute plans and projects is hampered by politics and political instability, and continued institutional strengthening is needed to foster cooperative management of shared water resources.

Development of the SDAP was followed by the TDA/SAP process funded by GEF under the project "Reversing land and water degradation trends in the Niger Basin", implemented through the World Bank and UNDP (2005-2011). In 2012 NBA incorporated the SAP actions into the original versions of the SDAP and IP documents, and these revised versions of the SDAP and IP became the main reference for establishing NBA policy and guiding the joint development process of the Niger basin countries until 2027. The SAP defines the Long-Term Environmental Quality Objectives (LTEQO) for the Basin, as well as priority actions for each of the major problems identified in the TDA. Twelve (12) LTEQOs with priority actions were defined based on a prioritization of (site specific) environmental problems; LTEQO 2, 8 and 12 will be addressed under the proposed project. LTEQO 2 relates to soil degradation, LTEQO 8 relates to climatic variability and change and is considered a cross-cutting problem at the scale of the basin, and LTEQO 12 relates to the stabilization of catchment areas in order to reduce the siltation of rivers and reservoirs. Climate variability and change has been clearly set out in the NAPs and is considered by NBA stakeholders as a priority environmental problem, whose resolution would greatly contribute to achieving the environmental vision for the basin by 2027. The SAP also proposes multiple institutional strengthening and capacity building activities that will be promoted under the regional component 3 of the proposed program. The proposed project conforms thus to the updated Niger Basin SDAP and original SAP. NBA is now well established and mandated to undertake and enhance the coordination of investment activities in the Niger Basin, and will be in charge of the implementation of the regional components of the proposed project.

Coordination with programs funded by NBA Partners: The main partners of NBA are WB, AfDB, KfW, GIZ, AFD, CIDA, UNDP, EU, AWF and GEF. Chaired by the World Bank these and other Financial and Technical Partners meet regularly with NBA to coordinate their interventions in the Basin. The proposed project builds on and/or is linked to a number of ongoing projects financed in the framework of the SDAP, *inter alia*:

⁸ NBA's specific mandates are to i) harmonize and coordinate national policies for the development of the Basin's resources; ii) develop and implement a integrated basin development plan; iii) design, build, operate and maintain joint infrastructure and projects; iv) ensure the control and regulation of all forms of navigation on the river, its tributaries and sub-tributaries in accordance with "the Act of Niamey"; and v) participate in the formulation of requests for assistance and the mobilization of funds for studies and infrastructure necessary for the development and preservation of the basin's resources.

⁹ Fomi dam in Guinea, Taoussa dam in Mali and Kandadji dam in Niger referred hereafter as the FO-TA-KD development scenario.

¹⁰ Kainji and Jebba dams on the main Niger River in Nigeria, and Lagdo dam on the Benue River in Cameroon.

¹¹ Kandadji dam is the most advanced, and is the only one currently under construction.

- i. Key investments from the World Bank funded “Water Resources Development and Sustainable Ecosystem Management Project” (WRDSEM) will improve the regional coordination and the development and sustainability of water resources management in the Niger Basin, as well as provide funding for the rehabilitation of large dams in the Basin. The first phase (186 million USD from 2007-2014) targeted the main stem countries Guinea, Mali, Niger, Benin and Nigeria, and 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 and of land in support to the sustainable management of lands, etc. Under its APL-II phase (250 million USD), the World Bank, along with AfDB, IDB and multiple other donors/financiers are funding more than 850 million USD for the Kandadji Program (for hydro-power and irrigation development, RAP and LDP), including a 3 million USD grant for institutional strengthening of NBA. The purpose of the latter grant is to (i) provide support to project management and supervision by NBA, (ii) update the 2004 institutional and organizational audit of the NBA, and (iii) support the implementation of the Niger Basin’s Water Charter. A third loan is also planned, which would expand in-country investments to all nine riparian countries.
- ii. The African Development Bank (AfDB) has funded the “Silt control in the Niger River Basin” program (PLCE), with the objective to contribute to safeguarding water and land resources of the Basin on a participatory and sustainable basis, and to arrest silt erosion in the Niger River considered to be detrimental to agricultural production and hydraulic infrastructure (2005 – 2011). The project supported NBA in elaborating a Master Plan for Silt Control in the Niger Basin, provided capacity building to NBA structures at regional and national levels, and implemented urgent measures to control erosion and siltation in three riparian countries (Mali, Burkina and Niger). AfDB is presently preparing the IPDACC follow-up project, discussed further below as the primary baseline project.
- iii. AFD (Agence Française de Développement) and the African Water Facility (AWF) established in 2006 the ongoing Niger-HYCOS Project, which enables NBA and the National Hydrological Services (NHS) of the member states to operate appropriate and sustainable hydrological information services, thus contributing to knowledge-based water management. In its second phase, HYCOS-2 is establishing an internet-based comprehensive water resources information system at Basin scale, including both historic and up-to-date hydro-meteorological data of good quality, which will be easily accessible to all types of users. The Niger-HYCOS is part of the world-wide WHYCOS of WMO.
- iv. The GEF funded project ‘Reversing Land and Water degradation trends in the Niger River Basin, implemented through the World Bank and UNDP (2005 – 2012), has addressed transboundary environmental issues in the Niger Basin through an in-depth Transboundary Diagnostic Analysis (TDA); it established a sustainable development framework for the Basin and developed a Strategic Action Program (SAP) as a signature GEF product. The project also funded pilot programs that involved grass root communities and gave them the opportunity to develop multiple actions, through pilot demonstration projects and micro-grant funded projects, embedding the principles of bottom-up planning and communities driving the actions. The micro-grant program promoted a participatory integrated management of transboundary 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 was reportedly sustainable in terms of socio-economic and institutional impact.
- v. Recently the African Water Facility (AWF) has granted €960,000 to the NBA in support of a program for the preparation of infrastructure projects aimed at reducing natural resources depletion caused by climate change, and improving their management in order to increase agricultural production and community resilience. The AWF grant is specifically targeted to the financing of preliminary studies for infrastructure projects and is intended to catalyze the necessary investment for their implementation through technical, economic, financial, and environmental and social studies. The cost of implementing the projects to be prepared by these studies is estimated at over €200 million. The program will provide NBA and its member countries with a portfolio of bankable projects aiming to, *inter alia*: reverse the trend of land, water and ecosystem degradation; reduce river bank erosion; reduce loss of biodiversity and arable land; and promote hydro-energy use.
- vi. German Economic and Development Cooperation (BMZ) is engaged through BGR in sustainable development issues related to groundwater through the Project: “Support to ground water management in the Niger basin” project. GIZ focuses mainly on capacity building in NBA regarding the shared management of water resources, and has assisted NBA with the development of the Water Charter, which has since been approved by all member countries. KfW/

BMZ has made €21 million available to NBA for two projects, i.e. €10 million for a project “Protection of the Niger River”, and €11 million for “Sustainable irrigation for small holders in Niger”.

- vii. The Canadian International Development Agency (CIDA) is funding the “Capacity Building Program of NBA” for an amount of 7.75 million CAD during the period 2009-2014 with the objective to improve NBA’s administrative and financial systems and human resources management, and strengthen NBA’s information and communication system, public participation, its technical expertise, its intervention and M&E capacity, and its focal structures in the member countries. The Program would also establish a suitable legal framework for NBA’s role in the development of the Basin’s shared water resources.
- viii. The EU has supported NBA in i) setting-up legal frameworks and stakeholder consultations for its investment programs, ii) environmental impact assessments for the Fomi dam in Guinea (under the Water Charter), and iii) hydrological forecasts based on earth observation. In its 10th EDF, the EU is supporting the Mekrou transboundary river basin (Burkina Faso, Benin and Niger), a tributary basin of the Niger River.
- ix. UNDP/UNEP are preparing the regional GEF funded project “Improving IWRM Knowledge based Management and Governance of the Niger Basin and the Iullemeden Taoudeni Tanezrouft Aquifer System (ITTAS)” in Burkina Faso, Benin, Cote d'Ivoire, Cameroon, Guinea, Mali, Mauritania, Niger, Nigeria and Chad (GEF grant: \$13.43 million), which will contribute to the financing of key elements related to ecosystem management and capacity building of the Niger Basin SDAP. It will consolidate the efforts of the Niger Basin Authority and of the countries in promoting conjunctive management of ground and surface waters, and promoting shared responsibilities with local communities and civil society in conserving and managing water resources and ecosystem degradation of the Niger Basin. It will also engage with the private sector on pollution control measures (e.g. from extractive industries). The project recognizes the threats of climate change and takes account of the important role of groundwater for drought management.
- x. The main interventions by the UNDP (2.8 million USD), with additional activities funded by GEF, focus on improving climate risk management to achieve water security and on capacity building and stakeholder involvement in ecosystem based management of the Niger Basin. The Cap-Net Program of UNDP supports national and NBA capacity building by contributing to capacity building of national stakeholders in the use of IWRM tools and tools related to climate change. UNDP country offices support governments and communities on the implementation of ecosystem restoration actions, setting up funding mobilization mechanisms, poverty reduction actions and promoting the participation of stakeholders. Other on-going UNDP initiatives include the strengthening of national capacities regarding climate change risks and vulnerability management (e.g. BCPR Niger, PAGEDD Mali).
- xi. Finally, the proposed GEF project will be linked to a new IUCN initiative “Integrated Management of the Niger River Basin” 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.

Baseline Project (IPDACC)

The degradation of natural resources in the Basin, amplified by recurring droughts and climate variability and change, weakens people’s livelihoods and the biodiversity in the basin. The correlation between environmental degradation and poverty is a vicious circle experienced by rural vulnerable groups including women and young people. Such constraints to the development of the Basin’s resources need to be addressed by the implementation of coordinated and synergic actions aimed at protecting ecosystems and the livelihoods of communities, under a comprehensive regional program for sustainable and climate resilient development. It requires interventions aimed at increasing the resilience of communities to fight against poverty, to preserve the basin’s ecosystem and to ensure a sustainable management of the basin’s natural resources. Due to the temporal and spatial variability of water resources, additional water storage infrastructure is required to meet the increasing needs for water of the various sectors and countries, and the population at large. Large multi-purpose infrastructures are justified by the fact that the riparian countries need to find solutions to food crises (through large scale irrigation schemes), environmental issues and energy security. Similarly, at local and sub-regional level minor/micro infrastructure for water and soil conservation will be required to support the rural population not benefitting from the large scale multi-purpose interventions. In this context, the “Integrated Program for Development and Adaptation to Climate Change in the Niger Basin” (IPDACC) is justified by the need to promote sustainable socio-economic development for the rural population in the Basin and the need to protect wetlands, ecosystems and water infrastructure, that consolidate the significant gains of previous investments under SDAP (including the PLCE Silt Control and WRDSEM Projects funded by respectively AfDB and WB).

The IPDACC project is in preparation by AfDB and other donors for an estimated budget of 265 million USD, of which 75 million USD will be funded by AfDB. IPDACC will be further financed by the West African Development Bank (BOAD), the West African Monetary Union (UEMOA), German Development Cooperation (KfW) and the Governments of NBA countries. Its global objective is to contribute to the improvement of the well-being and climate resilience of the Niger Basin population and ecosystems through sustainable management of the Niger Basin's natural resources. Specifically, it aims to i) reduce siltation in the Niger River and Basin, ii) improve the adaptation capacity of the Basin population to climate change, and iii) enhance natural resources management, integrated ecosystem management, protection of biodiversity and the restoration of soil fertility. The Program is based on NBA's Master Plan for Silt Control (developed under the PLCE project), the SDAP/IP (2012 update) and priorities identified by the riparian countries. It contributes to the development of socio-economic infrastructure and to the protection of the resources and ecosystems in the basin - two of the three main priority areas of the SDAP/IP. It will encompass the rehabilitation and construction of new hydro-agricultural infrastructure, and support interventions towards erosion and silt control, the protection of watersheds and ecosystems, and the development and modernization of the agriculture, livestock and fisheries sectors. Preliminary IPDACC project intervention areas for each country are provided in the annex to this document. GEF funded interventions will be complementary to IPDACC activities in these sub-regions. The IPDACC project is structured around three main components, as follows:

Component 1: Integrated development and management of water resources in the Niger Basin

Sub-component 1.1: Development of sustainable multi-purpose infrastructure will support across the Niger Basin countries the construction of small scale multi-purpose hydraulic infrastructure (for a.o. irrigation, fisheries, livestock, aquaculture and water supply), including i) small dams and impoundment reservoirs with associated irrigation infrastructure, ii) infrastructure for controlled flooding of low lands and flood irrigation, iii) the construction of ponds for water supply and aquaculture, iv) the development of marsh lands for dry season cropping, v) the rehabilitation of small irrigation schemes, livestock stations, and agro-sylvo-pastoral areas, and vi) floating cages and other investments for increasing fisheries in the Basin. Specifically, it includes the last phase of the construction of the Bambakari impoundment reservoir in Burkina Faso, the construction of 9 reservoirs in Benin and Cote d'Ivoire, the construction of 20 reservoirs in Cameroon and of 4 reservoirs in the Mayo Kebbi basin in Chad with associated irrigation schemes, etc. Supporting interventions in the agro-sylvo-pastoral sector are also integrated in order to restore and create pastoral areas, promote grass growing and improve the management of transboundary movements of men and cattle. Management Committees will be formed and trained for the maintenance and operation of the new infrastructure and for integrated water management.

Sub-component 1.2: Strengthening of shared water resources management aims to develop and introduce tools for adaptation and water management, such as adaptation strategies, local warning systems for floods and droughts and the dissemination of hydro-meteorological information to end users. It further aims to strengthen the adaptation capacities of water user associations, enhance sub-regional integration, and support feasibility studies for future investments.

Component 2: Building resilience to climate change in the Niger Basin

Sub-component 2.1: Protection of natural resources and ecosystems aims to combat soil erosion across the Niger Basin in order to protect natural lakes, rivers and (new) man-made reservoirs against siltation due to the prevalent soil erosion. Soil restoration and measures to reduce the erosive power of torrents (including check dams and biological treatment methods) will be implemented, as well as water and soil conservation on sloping lands with rainfed agriculture. Other envisaged interventions concern the sustainable management (and regeneration) of forests and wetlands and the conservation of biodiversity through participatory approaches. User Committees and Management Committees will be formed.

Sub-component 2.2: Social protection aims to create community infrastructure to increase resilience to climate change, including a.o. groundwater irrigation for horticulture production by women, and flood protection of community infrastructure.

Sub-component 2.3: Strengthening of adaptive capacities at community level includes *inter alia* i) the preparation and popularization (extension) of guidelines for good adaptation practices at community level, (ii) the dissemination of agro-climatic information, and iii) support to stakeholders in implementing good adaptation practices.

Component 3: Program Coordination and Management

This component aims to ensure effective and efficient management of the program at regional level by the NBA and in each country for their respective national component, in order to achieve the expected outcomes of the program. It includes the

setting-up of regional and national coordination units of the program, technical and financial management, supervision activities, M&E and annual audits.

3) The proposed alternative scenario, with a brief description of expected outcomes and components of the project

The proposed GEF Project “Integrated Development for increased rural climate resilience in the Niger Basin” (with IW and STAR funding) supplements the investments under the AfDB funded IPDACC baseline project, that aim to mitigate threats to the stability of the Basin’s ecosystems and new infrastructure, rehabilitate degraded lands, promote the conservation and sustainable exploitation of the Basin’s biodiversity and combat deforestation in selected areas. The GEF project is designed to promote sustainable solutions to climate change related problems and impacts identified in the SAP, and aims to contribute to SAP/SDAP implementation and provide key lessons for future up-scaling of the envisaged interventions to basin scale under SAP/SDAP. GEF funding will also support foundational activities such as the assessment of transboundary threats of climate variability and change, the basin-wide impact of (potential) climate change and variability on rainfed agriculture (the main livelihood of 75% of the Basin’s labor force), and pilot demonstration interventions contributing to improving the climate resilience of vulnerable communities at watershed scale. It will promote shared responsibilities with local communities and civil society in conserving and managing water resources and combating ecosystem degradation of the Niger Basin. The GEF project will support stakeholder participation and commitment in the preparation and implementation of integrated watershed management plans in selected representative sub-basins of the NRB, to ensure that ongoing and future developments in the targeted watersheds are sustainably managed. GEF resources will thus also contribute to the financing of efforts of the NBA and its member countries in achieving water security under increasing climate uncertainty and variability, under the wider umbrella of SAP/SDAP implementation. The proposed GEF project consists of four components: 1) Increased water security and climate resilience at regional level (IW), 2) Building resilience to climate change at sub-basin and watershed level in the Niger Basin (IW), 3) Capacity building at regional, national, sub-basin and community level (IW), and 4) Reforestation investments for climate change adaptation in Burkina Faso (STAR). The project is designed on the general principle that analytical work (component 1) is conducted at the regional level, while implementation occurs at the sub-basin level, which in turn will feed the analytical work. Capacity building under component 3 is primarily promoted, guided and supported through Technical Assistance (TA) from the regional level, and is therefore defined as a separate regional component. Component 2 will be implemented in selected watersheds in five representative sub-basins of the NRB, which will be selected based upon the prevailing representative physical and socio-economic conditions, based on criteria to be developed during project preparation. Therefore, this component has a sub-regional character. Component 4 (STAR) is a national component for Burkina Faso.

The Activities of IPDACC component 2 will scale-up the pilot resilience activities that will be financed by the GEF project. On the long-term and after adequate up-scaling, watershed management and treatment will not only benefit local communities, but also contribute through reducing watershed erosion and sedimentation to the sustainability of the large water infrastructure already existing or to be developed under SDAP, *inter alia* Kainji, Jebba and other existing large dams in Nigeria, Lagdo dam in Cameroon, the new Fomi, Taoussa and Kandadji dams with associated large scale irrigation development in Mali and Niger, large scale irrigation development in Nigeria and hydropower development in the Benue Basin in Nigeria. The sustainability and longevity of reservoirs such as Fomi, Kainji, Jebba and other Nigerian dams would benefit from reduced watershed erosion and consequently reduced sediment inflows and sedimentation, whereas Taoussa and Kandadji are likely much less susceptible to sediment inflow due to their close downstream proximity to the Inner Niger Delta in Mali, which functions as a sediment trap. Increased water retention at watershed level (due to water harvesting, small scale water storage development, improved rainfed agriculture, etc) would in principle reduce rainy season runoff in the main river(s), but as yet there is so much water available for storage during the rainy season that this is of little concern in the foreseeable future. Nonetheless, increased rainfed agriculture due to widely increased local water harvesting and storage should get priority over large scale irrigation development when it would come to a trade-off in the distant future.

Component 1: Increased water security and climate resilience at regional level (IW funding)

Component 1 responds to LTEQOs 8 and 12 of the SAP, particularly to: i) action 8.1: evaluate the basin’s vulnerability to climate variability and change, ii) action 8.2: review the existing situation in terms of the adopted forms of adaptation to climate variability/change, iii) action 8.3: develop and implement measures for adapting production systems to climate variability and change, iv) action 8.4: develop and implement programs to mitigate the effects of climate variability and change, and v) action 12.2: develop and implement a program for water and soil conservation and for reforestation of degraded zones.

Component 1 addresses strategic outcome 1 (“The basin populations have higher income from AFFF¹² activities and increased access to affordable electricity”), its complementary and interdependent strategic outcome 2 (“Ecosystems are sustainably preserved”) and strategic outcome 4 (“The commitment and participation of the populations, Member States and Technical Partners are maximized”) of NBA’s Strategic Plan 2013 – 2022.

Outcome 1: Project interventions produce sustainable benefits and increased water security and climate resilience at regional level

Output 1.1: Transboundary threats of climate variability and change and potential impacts on SAP/SDAP investments are assessed.

Main Indicator¹³: Assessment of potential climate change impacts on the Basin and recommendations for strengthening the climate resilience of SAP/SDAP are adopted by NBA-COM.

This sub-component will assess the basin’s vulnerability to climate variability and change with a focus on SAP/SDAP investments. Local and sub-regional experiences in terms of adaptation to recent climate variability and change (notably responses to the droughts of the 1970s and 1980s) will be reviewed as a major source of lessons learned, whereas also lessons will be drawn from experience in other African river basins. Relevant SDAP/SAP interventions will be reviewed and screened regarding issues of climate variability and change, based on the latest CMIP5 (GCM) climate projections for the region. The review and assessment process will involve a range of stakeholders, *inter alia* government agencies, academia (national and international), CSOs, NGOs, the private sector, etc. This project component will also review the relevant impacts and experiences of interventions funded by other Technical and Financial Partners of NBA, and review national experiences regarding climate proofing and increasing the climate resilience of rural populations. This output will provide recommendations to NBA and the Niger-COM for future updating of the SAP/SDAP (if any), to fully incorporate the potential future impacts of climate change and variability on the physical and socio-economic conditions in the Basin in SAP/SDAPs’ strategic outcomes and interventions.

Output 1.2: Tools and guidelines for building climate resilience at sub-basin and community level are developed

Main Indicator: Regionally applicable tools for building climate resilience of rural populations adopted by the NBA countries

This project component will develop tools for building climate resilience at community level, such as adaptation strategies, local warning systems for floods and droughts and the dissemination of hydro-meteorological information to end users, and tools for strengthening the adaptation capacities of water user associations. NBA and national implementing agencies will be supported in the development and dissemination of hydro/agro-climatic information useful to end-users. This sub-component will draw on national guidelines and on lessons learned across the Niger Basin. It will focus on tools and guidelines, which can be promoted and disseminated by NBA throughout the Basin, keeping also in view the potential beneficial impacts in downstream countries of watershed treatment and conservation of natural resources in upstream countries (incremental benefits).

Output 1.3: Lessons learned and disseminated for enhanced climate resilience of rainfed agriculture on pilot basis in five agro-climatic zones of the Niger Basin

Main Indicators: i) studies on the adaptation of rainfed agriculture to climate change completed; ii) pilot projects to improve sustainable rainfed agricultural practices completed in 5 agro-climatic regions, and iii) lessons learned disseminated and integrated in national agricultural management plans.

Allegedly the livelihood of about 70% of the population in the Niger Basin depends on rainfed agriculture. Even if the total irrigated agriculture potential of the basin were fully developed (as far as made possible by water availability), issues related to limited availability of water and irrigated lands, affordability, tenure, access to irrigated lands, and social economic inertia/constraints related to converting from rainfed agricultural systems to irrigation imply that a significant majority of the labor force will still remain tied to rainfed agriculture. These considerations suggests that in order to have the maximum effect, any scheme addressing climate risk management in the Niger Basin must address climate risks related to rainfed agriculture. Therefore, there is a need to assess the basin-wide impact of (potential) climate change and variability on rainfed agriculture, also keeping in view the present conditions of increasing land degradation and erosion. Pilot interventions for the adaptation of rainfed agricultural practices will be explored in 5 agro-climatic regions of the Niger

¹² AFFF: Productions from agriculture, forestry, fishing and fish-farming

¹³ The indicators and in some instance the targets (at PIDACC level) are preliminary and will be confirmed at CEO endorsement level and inserted in the M&E planning.

Basin (as much as possible in synergy with output 2.2), including water harvesting, water conservation and management, erosion control, changes in cropping patterns, cropping schedules and agricultural inputs, etc. Lessons will be learned from international experiences, as well as from adjustments made by farmers during and after the droughts of the 1980s, when impacts of the droughts were allegedly less than during the less severe droughts of the 1970s. Lessons learned will be disseminated basin-wide (output 3.3), and will also feed into the implementation of component 2 (output 2.1).

Output 1.4: Lessons learned from watershed management interventions up-scaled to integrated watershed management plans for each member country

Main Indicator: at least one (sub-basin) watershed management plan developed in each NBA member country

Based on lessons learned from sub-regional/sub-basin interventions under output 2.2, this regional project component will assist the national implementing agencies with the development of integrated watershed management plans at sub-regional /sub-basin scale, with a focus on water conservation, erosion and siltation control, ecosystem conservation and judicious natural resources management under conditions of climate change and increased climate variability.

Component 2: Building resilience to climate change at sub-basin and watershed level in the Niger Basin

Component 2 responds to LTEQOs 2, 8 and 12 of the SAP, particularly to i) action 2.3: Capitalize on and promote the best practices, techniques and modern technology for water and soil restoration and conservation, ii) action 8.3: develop and implement measures for adapting production systems to climate variability and change, iii) action 8.4: develop and implement programs to mitigate the effects of climate variability and change, iv) action 12.2: develop and implement a program for water and soil conservation and for reforestation of degraded zones (sub-basin treatment programs for degraded land recovery, erosion control, reforestation of the degraded zones, riverbanks protection, etc.), and v) action 12.3: develop and implement a demonstration program on the sustainable exploitation and management of the sub-basin's resources.

Component 2 of the proposed project will support pilot interventions to demonstrate best practices for enhancing the climate resilience of vulnerable communities and watershed management in five representative sub-basins, representing the diversity of physical and socio-economic conditions prevailing within the Niger Basin. These could include sub-basins of i) the Upper Niger Basin (Guinea), ii) the Bani Basin (Ivory Coast and Mali), iii) the Inner Delta (Mali), iv) the Middle Niger (Niger and Burkina Faso), v) the Lower Niger Basin (Nigeria and Benin), and vi) the Upper Benue Basin (Chad and Cameroon). The possible size of the intervention areas (watersheds) and the location of representative sub-basins will be determined during Project Preparation, based on technical criteria to be developed, budgetary constraints and close consultation with NBA and its member countries. The sites of intervention will be located in the most degraded areas of each sub - watershed and actions will touch the most vulnerable communities. Component 2 builds on achievements of the PLCE (AfDB funded) and WRDSEM (WB funded) projects, while being aligned with PLCE's successor project IPDACC and similar interventions funded through the anticipated GEF project "Improving IWRM, knowledge-based management and governance of the Niger Basin and the lullemeden-Taoudeni/ Tanezrouft Aquifer System (ITTAS)". This component also builds on lessons learned during the previous GEF funded project 'Reversing Land and Water degradation trends in the Niger River Basin (2005 – 2012), which addressed transboundary environmental issues also through demonstration projects and micro-grant funded interventions. The proposed GEF and IPDACC projects provide opportunities to replicate and expand the experiences of the previous GEF and PLCE and ongoing WRDSEM projects. The SAP recommends designing and implementing pilot demonstration programs and projects to reduce ecosystem stress and improve natural resources management. Complementarities, coordination and alignment with these and other ongoing (similar) interventions will be further assessed and elaborated during project preparation.

Component 2 addresses strategic outcome 1 ("The basin populations have higher income from AFFF activities and increased access to affordable electricity") and its complementary and interdependent Strategic outcome 2 ("Ecosystems are sustainably preserved") of NBA's Strategic Plan 2013 – 2022. This component will allow the NBA to test and develop an approach and package of resilience activities adapted to the realities of each sub - basin. Acquired lessons will be capitalized to promote the development of resilience activities across the basin.

Outcome 2: Project interventions produce sustainable benefits, and increased water security and climate resilience at sub-basin, watershed and community level (IW funding)

Output 2.1: Climate resilience of multiple communities in five selected watersheds (one per representative sub-basin) is increased and best practices are demonstrated.

Main Indicators: i) community plans for increased climate resilience are prepared and implemented for/with multiple communities in each of the five selected areas in the five selected NRB sub-basins; ii) alternative employment and livelihoods introduced for 10,000 people; iii) improved rainfed agricultural practices introduced in each selected area; and iv) impacted communities have access to daily/weekly and seasonal agro-climatic information.

The project will support pilot interventions to demonstrate best practices for enhancing the climate resilience of vulnerable communities in five representative sub-basins of the NRB. These pilot interventions will include *inter alia*: i) the preparation of community plans for increased climate resilience, ii) the promotion and introduction of alternative income generating activities for enhanced social protection, iii) the construction of flood defenses, iv) the introduction of improved (rainfed) agricultural practices (output 1.3), v) the dissemination of agro-climate information, and vi) the introduction of water harvesting and alternative energy saving technologies. A participatory and community-centered approach will be adopted, and the project management team will provide overall guidance and provide technical and scientific support to the process. Small grants (up to a total of 3 million USD) will be provided to approximately 30 community-based organizations (CBOs) and non-government organizations (NGOs) within the five representative sub-basins. During the first year of the project, livelihood analysis will be undertaken to understand the livelihood context in local communities (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-economically affordable and low-tech measures.

Output 2.2: Community-based integrated watershed management plans are prepared and implemented for selected watersheds in five representative sub-basins of the NRB; local capacities on land and soil conservation are strengthened.

Main Indicators: i) watershed management plans prepared and implemented for one watershed in each representative sub-basin, ii) 18,000 ha habitat and wetlands restored; iii) 50,000 ha of forests and wetlands under improved watershed management; iv) 9 koris treated, and v) 100,000 ha of arable land regenerated for sustainable rainfed agriculture.

Watershed management and treatment plans will be prepared and implemented at an appropriate scale in five representative sub-basins, representing the diversity of physical and socio-economic conditions occurring within the Niger Basin. These could include sub-basins of i) the Upper Niger Basin (Guinea), ii) the Bani Basin (Ivory Coast and Mali), iii) the Inner Delta (Mali), iv) the Middle Niger (Niger and Burkina Faso), v) the Lower Niger Basin (Nigeria) and vi) the Upper Benue Basin (Chad and Cameroon). The possible size and location of the sub-basins to be selected needs to be determined during Project Preparation, based on technical criteria to be developed and budgetary constraints. Interventions will include erosion and siltation control, ecosystem conservation, the protection of natural resources and the conservation of water resources under conditions of climate change and increased climate variability. The objective of these pilot programs is to demonstrate options and best practices for the effective treatment of catchments and the sustainable exploitation and management of natural resources in a sub-basin. The pilot programs may include such types of activities as: i) the fight against erosion in a watershed, the treatment of koris, dunes fixing, the protection of river banks and catchment restoration, ii) sustainable forest management and the protection of biodiversity and wetland areas through the restoration of forests and agro-forestry, and iii) climate information integration for agro-pastoral activities management. Forest management activities would be mainly concentrated in the head waters in Guinea and Cameroon, land restoration and dune fixation in the triangle of the Sahel (Mali, Niger and Burkina Faso), the protection of biodiversity in Mali, Benin and Nigeria, and agro - forestry and the fight against erosion across the Basin. The targeted areas and scope of this component will be further assessed through technical studies during the project preparation stage.

Component 3: Capacity building at regional, national and community level (IW funding)

Component 3 responds to multiple actions of the SAP under SALR-01, SAIR-02, SCBA-02 and SCBA-03, particularly to actions: i) J1.3: harmonize the legislative and regulatory texts on the protection of soils against degradation, ii) J1.18: define a legal and institutional framework for the harmonious exploitation and management of soils, iii) J1.20: experiment with local land conventions to promote investment in activities for the conservation, protection and sustainable improvement of soil productivity, iv) I2.4: conduct a capitalization study on silting control experience, v) I2.6: conduct a capitalization study on experience in recovering degraded land, vi) C2.2: develop and implement training and information programs on environmental issues intended for elected officials, administrative and traditional authorities, grassroots community organizations, NGOs, etc. , vii) C2.8: encourage environmental awareness among administrative and traditional authorities, local elected officials, grassroots community organizations, NGOs and the general public, and viii) C3.1: Strengthening the capacities of the NFSs.

Component 3 addresses strategic outcome 4 (“The commitment and participation of the populations, Member States and Technical Partners are maximized”) and strategic outcome 5 (“NBA organizational capabilities are increased”) of NBA’s Strategic Plan 2013 – 2022. Output 3.4 also contributes to strategic outcome 3 (“The sustainability of NBA and community infrastructure is ensured”).

Outcome 3: Enhanced capacity of regional, national, sub-basin and community level stakeholders to sustainably manage natural resources, accounting for climate change and variability

A Framework for Capacity Building and Knowledge Management will be prepared during project preparation. The support for capacity building under this GEF and the IPDACC projects will be aligned with SAP priorities and complement/reinforce the support provided by other Technical and Financial Partners (TFP) of NBA, as elaborated above under “baseline scenario and projects”. Under Output 3.1 the project will support capacity building in NBA, its regional structures and the national implementation entities towards coordinating, developing, monitoring, assessing and implementing tools and interventions aimed at enhancing climate resilience at community and sub-basin levels and sustainable management of natural resources across the Niger Basin. During project preparation it will be ascertained in detail that there will be no overlap with capacity building provided by other TFPs of NBA.

Output 3.1: Capacities of NBA and the participating national agencies for coordination and implementation of climate resilience interventions are strengthened.

Main Indicators: i) mechanisms and M&E indicators are in place to monitor project impacts, ii) 100 staff from NBA, national agencies and national focal structure (NFS) are trained in the project’s M&E system, and iii) resilience activities are mainstreamed by NBA and national agencies

The project will be coordinated at the regional level by the NBA and implemented at the national level by the relevant national implementation agencies. The regional component 1 will be implemented primarily by NBA. The role of NBA, implemented through a Regional Coordination Unit, will include *inter alia*: (i) producing analytical work to identify problems that would benefit from a regional approach and facilitating cross-country dialogue; (ii) assessing with countries the costs and benefits of their participation in proposed interventions and facilitating agreement on how costs are to be shared; (iii) providing Technical Assistance, know-how, and expertise; (iv) gathering and storing data, and sharing information on good practices through implementation of a coordinated ICT strategy; (v) coordinating country-level operational activities and harmonizing policies and procedures; (vi) monitoring and reporting on progress of interventions; and (vii) providing training, thematic workshops and exchange of information. Support will be provided to the development of an M&E system for SAP/SDAP implementation at the national and regional levels.

Sub-basin/regional level activities will be implemented through national implementing agencies and mechanisms, coordinated through NBA’s National Focal Structures in the member countries. Technical support to complement existing national capacities will be provided by the Project resources. In view of the substantial socio-economic interest generated by the planned project outcomes, NBA’s member countries will assume responsibility for continued activities, including collective responsibility for any continuation of regional level activities after the project ends. Relevant strategies will be put in place to this effect.

The project will establish and consolidate a large volume of baseline data and management best practices for major ecosystem components and build a reservoir of expertise to sustain the natural resource potential of the Basin. A coordinated ICT strategy (possibly linked to NBA’s Observatory) for all data and information produced in the proposed project will be explored in the project preparation phase. Such ICT strategy would necessarily be aligned with NBA’s overall strategy for data collection, including its Observatory, the Niger – HYCOS system, its GIS facilities and all its other data collection activities supported by multiple donors.

Output 3.2: Capacities and ownership of communities for integrated soil and water conservation and enhanced climate resilience at watershed level in selected sub-basins are strengthened.

Main Indicators: i) 10,000 people covered by the extension campaigns of best practices of Natural Resources Management, and ii) 100,000 ha of arable land (output 2.2) under sustainable management

The watershed management and treatment plans under output 2.2 will be developed and implemented in close cooperation with and fully owned by local communities in the selected sub-basins. The project will strengthen local capacities for integrated soil and water conservation in the catchment areas as well as afforestation efforts for sustainable community based wetland conservation where applicable. Public participation leading to sustainable development and improved ecosystem management will be supported.

Output 3.3: Transboundary learning mechanisms, communications, consultations and Knowledge Management are established at community, national and regional levels and experiences are shared through multiple forums

Main Indicators: i) strong participation in IW events (GEF IWC, COP, IW: Learn), ii) project website in line with IW: guidelines regularly updated; iii) 5 awareness and sensitization workshops for stakeholders organized in each member country, and iv) a repertoire of knowledge products developed and disseminated

Transboundary learning mechanisms, Knowledge Management (KM), communication, consultations and awareness building activities will be established at community, national and basin levels. Experiences will be shared through establishing websites, bi-annual GEF conferences, regional meetings, IW:LEARN, technical papers, video, technical forums, WWF, AMCOW and other relevant forums. Training and consultative workshops will be organized to sensitize stakeholders on climate change issues and the strategies to enhance climate resilience of communities. Overall 5% of the GEF grant will be dedicated to Knowledge Management, communication, consultations, outreach/awareness efforts, IW: Learn related activities, drawing of lessons and dissemination of lessons learned and experiences gained by the project.

Output 3.4: Mechanism for Payment for Environmental Services (PES) explored and established on pilot basis

Main Indicator: Mechanism for PES adopted on pilot basis by Niger - COM

The up-scaling and sustainability of watershed treatments for the conservation of natural resources requires the exploration of sustainable future financing mechanisms, to allow NBA and member countries to continue this kind of interventions without the support of Financial Partners, at least on the medium to long-term. On the long-term and after adequate up-scaling, watershed management and treatment will not only benefit local communities, but also contribute to the sustainability of large infrastructure (by reducing watershed erosion and siltation in reservoirs). Therefore, ways and means will be explored for future financial contributions to watershed management derived from the common management of large infrastructure in the Basin (the latter is one of the mandates of NBA explored under the CIDA funded "Capacity Building Program of NBA"). In this context, the project will assist the member countries to explore and possibly implement a mechanism for Payment for Environmental Services (PES) to finance activities of sustainable management of natural resources. This mechanism could, for example, enable the mobilization of financial resources through the payment of royalties for the use of water by large hydroelectric dams, irrigation schemes, cities, etc. These financial resources would then be used to pay small producers (such as farmers and fishermen) for the adoption of best practices of sustainable land and water management. This would enable NBA to deploy a strategy for sustainable natural resources management at the basin scale for improving the (climate) resilience of ecosystems and the natural resources of the Niger River Basin.

Component 4: Sustainable land and forest management for climate change mitigation and improved livelihoods in Burkina Faso (STAR funding)

Component 4 responds to LTEQO 1 and 8 of the SAP, particularly to i) action 1.2: develop and implement programs and projects to restore degraded ecosystems, ii) action 1.4: develop and implement reforestation programs and projects, and iii) action 8.4: develop and implement programs to mitigate the effects of climate variability and change.

Component 4 responds to environmental challenges in Burkina Faso as described below. It has been designed complementary to the Burkina Faso Gazetted Forests Participatory Management Project for REDD+ (PGFC/REDD+), an ongoing project, funded by the Forest Investment Program and the Government of Burkina Faso. It is fully aligned with the SAP, specifically action 1.4 that promotes development of agro-forestry in the Basin. This component is proposed to be funded from the available funds under the GEF-STAR allocation for Burkina Faso.

The Niger Basin is affected by inter-related environmental degradation processes. The rate of deforestation is estimated at some 0.1 million hectares per year between 1992 and 2002, while forest degradation is estimated at some 0.5 million hectares per year. These numbers are in the average range for the Sahelian countries. Land and forest degradation and deforestation are mainly caused by agricultural expansion, unsustainable agricultural practices, overgrazing, bush fires, over-exploitation of forest resources, in particular for wood fire and mining, the impacts of recurring droughts. Indirect causes include demographic pressures, land tenure insecurity, and lack of institutional and human capacities. Deforestation and forest degradation are intrinsically associated to land degradation. Land degradation increases the needs for agricultural lands and the consequent pressures on forest, while deforestation and forest degradation favors land degradation through its negative impacts on soils and water. Land degradation has traditionally been particularly high in Burkina Faso compared to other Sahelian countries.

The *PGFC/REDD+* will contribute to reduced timber harvesting through the improvement of participatory forest planning and management in gazette forests by local communities through the formation and capacity building of forest

management groups, which will exploit timber and non-timber forest products, but also will ensure forest maintenance and conservation. In parallel, the project will reduce the demand for firewood through the dissemination of improved stoves. Improved harvesting practices of non-timber forest products (NTFPs) will also be promoted to mitigate any reduction in livelihoods.

This GEF project component will support the project funded under Forest Investment Program (FIP) of the Climate Investment Funds project by contributing to the reforestation of degraded areas of forests under management by the FIP project. The project area covers 6 (six) gazetted forests located in 31 municipal councils belonging to 4 administrative regions: the Boucle du Mouhoun, the Centre-West, the South-West and the East. The gazetted forests selected for development cover a total surface area of nearly 285,000 ha: Tapoa Boopo in the East Region; Tiogo and Nazinon in the Centre-West; Koulbi, the Bontioli Partial Reserve (PR) and the Bontioli Total Reserve (TR) in the South-West; and a string of 6 small forests in the Boucle du Mouhoun: Tissé, Kari, Ouoro, Toroba, Nosébou, and Sorobouli. The project will therefore directly affect 5,400 producers. Indirectly, it will benefit the entire population of the 31 neighboring municipal councils, representing 848,000 people, 52% of whom are women. The project's direct beneficiaries are smallholders and vulnerable women who depend on forest products for their livelihood.

The carbon depletion process in Burkina Faso does not only contribute to climate change but represents also a major threat in terms of the country's food security, local livelihoods, and its resilience to climate change. Peasants are the key stakeholders involved in these degradation processes, and they are also the most exposed to their impacts. Consequently, financing community-driven development activities that reinforce rural development and GHG sequestration in dry lands and savannahs of Burkina Faso will contribute to carbon stock enhancement and climate change mitigation.

Outcome 4: Promote conservation and enhancement of carbon stocks and other ecosystem services through sustainable forest management

Output 4.1: Restoration and enhancement of carbon stocks in forests

Main Indicators: i) 12,000 ha reforested, ii) climate resilience of 1,000 members of vulnerable groups enhanced through an increased flow of ecosystem services

The project will support restoration of degraded soils of about 1,000 ha and reforestation activities on about 11,000 ha in forest reserves, as well as row plantation around forest reserves on about 500 km. It will pay for the restoration of degraded land, the buying of tree plants and the work provided by local communities for these activities. It will result in some 1,5 million additional tons of CO₂-eq sequestered or maintained (see also conservation activities in output 4.2) over 25 years, enhance communities' productive assets and strengthen their resilience against climate change through increased flows of ecosystem services (water, soil conservation, etc.). The carbon sequestration is estimated using Ex-ACT and the detail of the calculations will be provided at CEO endorsement. Reforestation will be made with resilient and fast-growing species that can adapt to climate change and variability in the region.

Output 4.2: Forests under good management practices

Main Indicators: i) sustainable harvesting quotas assessed and disseminated, ii) mechanism of Payment for Environmental Services (PES) introduced, and iii) 60,000 people from local communities sensitized regarding sustainable forest management.

The project will support a research activity aiming at revising harvesting quotas in the forest reserves in order to ensure sustainability in the exploitation of forests in the context of a changing climate and a reducing forest regeneration rate. It will also support forest maintenance and conservation by local communities (for an estimated 12,000 hectares), taking into account the revised harvesting quotas, through the use of PES. Finally, the project will finance an Information Education and Communication Campaign to sensitize local populations to this new model for sustainable forest management.

Output 4.3: Enhanced capacities of local stakeholders and communities for sustainable forest management in the context of REDD+

Main Indicator: Forestry administration at central and decentralized levels is familiar with the concepts of REDD+

The baseline project will cover the development of the necessary policies and tools for REDD+, the training of the central and regional forestry administration and awareness building of local stakeholders to the REDD+ approach. The GEF component aims at building the capacity of local technicians and communities for the operationalization of REDD+ for sustainable forest management. This component will strengthen the capacity of the local technicians and communities on the concepts of REDD+ through short term courses at the Nazinon training center. The activities will include: i) the

elaboration of training and extension modules and ii) the preparation and implementation of a training and extension plan for local technicians and communities (forest management groups, village development committees, associations, women groups, etc.) on sustainable forest management in the context of REDD+.

The sustainability of co-management of forests by local communities, under supervision of the forestry administration, is supported by the fact that communities gain sustainable income from: i) the exploitation of timber and non-timber forest products, ii) payments for environmental services (PES) for the maintenance and conservation of forests, and iii) income diversification in riparian municipalities. The future sustainability of project investments in forests will be ensured by the establishment of a mechanism of Payment for Environmental Services (PES) in each forest. The aim is to enlist Forest Management Groups (FMG), with the supervision of the forestry administration, as major players for the management, maintenance and conservation of forests instead of them simply exploiting forests. This requires a change in behavior and practices of FMGs, since they will have to adopt self-discipline in forest management in addition to assuming responsibility for the maintenance and conservation. For these services to forest conservation, they will receive payments through a PES contract they will sign with the Ministry of Environment and Sustainable Development. Under this contract the communities will commit to: i) comply with the terms of operating forest management including the rate of forest biomass removal, ii) ensure forest restoration including reforestation, rehabilitation and periodic maintenance; and iii) ensure the adoption of best management practices of forests by other members of the community through education and protection of forests.

4) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF and co-financing

The overall objective of the project is to enhance sustainable rural livelihoods in the Niger Basin and promote ecosystem and water resources conservation and wise natural resources management at sub-basin level throughout the Niger Basin. Besides water, hydro-energy, irrigated agriculture, fisheries, ecosystems and bio-diversity are a regional resource, which necessitates a regional approach to their sustainable management, utilization and development. Water, bio-diversity, wild life and ecosystems cross natural boundaries; other elements are more confined to specific sub-regions (such as for example the Inner Delta) such as critical refuge or breeding and feeding habitats, which may influence regional fisheries well beyond their immediate limits. In addressing these issues at the regional and sub-basin level, the project builds on the achievements of the PLCE (AfDB funded) and WRDSEM (WB funded) projects, and is aligned with PLCE's successor project (IPDACC) and interventions funded through other Technical and Financial Partners of NBA. The proposed project also builds on the previous GEF funded project 'Reversing Land and Water degradation trends in the Niger River Basin, implemented through the World Bank and UNDP (2005 – 2012), which addressed transboundary environmental issues in the Niger Basin through an in-depth TDA/SAP process, demonstration projects and micro-grant funded interventions. The proposed GEF and IPDACC projects provide opportunities to replicate and strengthen the experiences of the previous GEF and PLCE and ongoing WRDSEM projects. The SAP recommends designing and implementing pilot demonstration programs and projects to reduce ecosystem stress and improve natural resources management. Moreover, this GEF project adopts a comprehensive and transboundary approach that addresses not only the challenges at sub-basin/regional level but also transboundary issues.

Significant investments are being made or planned in the Niger Basin for the construction and rehabilitation of large hydroelectric dams in Guinea, Mali, Niger and Nigeria. The SDAP investment plan also includes the construction of many small dams for the development of agro-pastoral activities for poverty reduction in the basin. The IPDACC program is in line with NBA's vision of mobilizing water resources by the construction of small dams to promote the development of agro-forestry and pastoral activities. However, the viability of these infrastructures depends on appropriate land management to maintain soil productivity and the reduction of river siltation. For this, it is essential to develop complementary interventions against land degradation and siltation through erosion control. The fight against erosion in the Niger Basin requires very significant financial resources that cannot be mobilized only by the countries or by one partner or one project. GEF funding will then support activities against erosion for the protection of production systems, ecosystems and vulnerable groups throughout the Basin. Incremental cost and additional benefits will be at different levels:

- Ecosystems of global significance are restored and conserved: The richness of the Basin's floodplains support a wide range of natural habitats and economic activities which provide means of livelihood to riparian communities. The restoration and conservation of these habitats is key in the provision of various environmental goods and services to local, regional and global communities.
- Sustainable livelihood "investments" and poverty reduction: Current depletion trends of natural resources - despite national and regional efforts to preserve them while promoting economic development - suggest that none of the

individual countries can independently afford the revitalization of the associated ecosystems and their goods and services. This project will deliver sustainable investments at community and sub-basin cum watershed level to protect production bases and maintain socio-economic activities. These investments will take into consideration current and future climate change and variability and by doing so improve the climate resilience of the rural communities.

- Sustainable exploitation of infrastructure: Erosion control by reducing sediment transport will ensure sustainable use of water storage infrastructure.
- Improved availability of shared water resources: Water scarcity and mismanagement has impacted the Basin's economic activities, caused conflicts and recurrent food insecurity. The need for a better coordination between national and regional bodies and a common understanding of shared challenges such as climate change and climate variability will be addressed.
- Improved local and regional food security: Local investments will seek to improve the prevailing social conditions through the conservation of water, biodiversity and land, and thereby increase food and energy security by stabilizing crop yields and increasing fuel-wood availability.

The need to build capacity and increase knowledge and commitment at transboundary, national, sub-basin and community levels regarding the strengthening of climate resilience of the rural poor and the ecosystems they live in and exploit, is an additional cost imposed by the transboundary nature of the Niger Basin and this is consistent with the GEF principles and strategic objectives. The incremental benefits of this project will accrue to the international waters of West Africa; there will be lessons learned on international water issues that are relevant to all of SSA, especially regarding the impacts of climate change on the livelihoods of the rural poor and on ecosystem goods and services across national boundaries, and consequently on the interests of vulnerable rural people, which form the majority of the inhabitants of the Niger Basin and SSA. Ecosystem and water resources conservation and wise use of water in Africa constitute an incremental benefit.

5) Global Environment Benefits (GEB)

This project seeks to increase the socio-economic and climate resilience of the largely rural population in the Niger Basin. Strategies and interventions will be developed to minimize the potential impacts of variability in water resources availability resulting from extreme climate events (drought, floods) or long-term climate changes. The project aims to halt the deterioration of natural resources and strengthen the process that supports the trend towards sustainable natural resource management, protection of the environment, promotion of alternative income sources and diversification of welfare. 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. As such, the project clearly supports Global Environmental Benefits (<http://www.thegef.org/gef/GEB>) in multiple focal areas, *inter alia*: A) in the International Waters (IW) focal area, including: i) multi-state cooperation to reduce threats to international waters, ii) restored and sustained freshwater ecosystems goods and services, and iii) reduced vulnerability to climate variability and climate-related risks, and increased ecosystem resilience; B) in the Land Degradation (LD) focal area, including: i) Improved provision of agro- and forest ecosystem goods and services, ii) Reduced vulnerability of agro-ecosystems and forest ecosystems to climate change and other human-induced impacts, and iii) reduced pollution and siltation of international waters; C) in the Climate Change Mitigation (CCM) focal area, including: i) enhanced carbon stocks under sustainable management of land use, land use change, and forestry, and D) in the Sustainable Forest Management/REDD+ focal area, including: i) reduction in forest loss and forest degradation, and ii) enhanced sustainable livelihoods for local communities and forest-dependent people.

Consultation mechanisms will be developed to 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. Community participation in conservation will increase sustainable practices and better protection of natural resources. Women will be particularly encouraged to take their role in project implementation as well as being part of various committees. 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. Socio-economic activity in the project area already includes significant participation of women, especially in the production and marketing of horticulture and fisheries 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.

6) Innovativeness, sustainability and potential for scaling up.

<p><i>Innovativeness</i></p>	<p>The project will apply decision-support capabilities drawn from the use of knowledge bases, and simple tools for land, fisheries, water resources and ecosystem management. This will be key, given the data-poor environments at community levels. This will also address the fact that the pace of development and scope of environmental problems almost always grow faster than the ability to build and sustain capacity at community level. The tools will place domain knowledge into the hands of local practitioners in such a way that water, land and fisheries managers are guided through decision making.</p> <p>The project will take into account gender concerns considering the fact that the issue of resource degradation and natural disasters (flooding) affects men and women and vulnerable groups (children, young and old) differently. The dissemination and sharing of information will be developed and disseminated in a manner to ensure that women - 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>The introduction of Payment for Environmental Services (PES) will be explored, and – where possible – introduced on pilot basis.</p>
<p><i>Sustainability and potential for scaling up</i></p>	<p>The project addresses key regional, national and local development priorities spelled out in the SDAP for the Niger Basin. Capacity building will generate a pool of technical experts that can be utilised for future replication in other parts of the member countries. Thus, capacity building and participation of local stakeholders in project activities contributes to sustainability.</p> <p>The design principles of the project are specifically set out to foster replicability through up-scaling of learning and mainstreaming into policy processes and development planning in each member country and at regional level. This project will also provide lessons for application in other River/Lake Basins in Sub-Saharan Africa.</p> <p>Technically, the project is designed to foster ownership, enhance coordinated basin management and ensure long-term sustainability for fisheries, water resources and ecosystem management in the Niger Basin. The project contributes towards the Shared Vision, to which NBA member countries have shown strong commitment. Further, the planned results will be mainstreamed within national priorities, providing prospects for sustainability of benefits.</p> <p>NBA, supported by CIDA, is in the process of strengthening its institutional arrangements for enhanced program sustainability. Several policies/strategies exist or are under development to guide implementation of projects. Key among them include: human resources policy, resource mobilization strategy, gender mainstreaming strategy, communication strategy, anti-fraud policy, internal audit charter, procurement manual, Financial Management Manual, and Environment and Social Management Framework.</p> <p>The project will explore financial and sustainability measures with respect to the project, which includes but is not limited to cost avoidance and cost-reduction, and additional income generation. Financially, NBA countries provide counterpart contributions in-cash and in-kind (counterpart staff and office space), which is a sign of commitment to the program's objectives.</p> <p>The introduction of Payment for Environmental Services (PES) will be explored, and – where possible – introduced on pilot basis.</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.

Improving water governance in the water sector is not only about government systems and enacting policies and legislation; it encompasses a much broader range of factors, including engaging civil society and, most importantly, ensuring that local capacities and competences are in place. Consequently, one of the project guiding principles is the participatory approach and the empowering of people and decentralized communities in the preservation and management of natural resources and the understanding and adoption of interventions to combat climate change and variability. The GEF activities will thus be implemented in partnership with the decentralized communities, the technical government departments and other stakeholders. The program will work closely with the water user's regional coordination unit (CRU), the nine (9) national water user's coordination bodies (CNU) and their respective branches in the countries. These communities' organizations will be involved at the early stages. The approach of the program is to support these associations for the development and implementation of plans to manage their natural resources wisely and fight against erosion in their respective watersheds. Other social dimensions included in project design are gender and development, social safeguards, and the management of social risks and vulnerabilities. Social safeguards during project preparation will be guided by AfDB safeguards.

Other key Stakeholders are the local communities impacted by and benefitting from the project, national coordination units, government ministries (like the national Ministries of Water Resources, Agriculture and Environment), NGOs, the private sector and a large number of donors and technical partners financing and executing projects in the basin. During project preparation a mapping exercise of stakeholders, donors, partners and activities will be undertaken in order to facilitate the consultation process at preparation as well as during project execution. NBA recognizes the importance of involving a wide range of stakeholders in the preparation of projects. This improves the effectiveness, relevance, and sustainability of development programs, and contributes to good governance, inclusion and empowerment of disadvantaged groups. Stakeholder involvement during project preparation and implementation will be guided by AfDB's and NBA's Public Consultation Frameworks and Communication Strategies.

Gender and development: Reducing inequalities based on gender and empowering women to participate more fully in social-economic growth are recognized as essential to reducing poverty and achieving development goals within the NBA countries. Under its Gender Strategy, NBA has committed to mainstream gender considerations in all its operations and support gender-specific activities, especially in areas where gender disparities are most severe. During project preparation, gender analysis will identify (i) gender disparities that may affect the feasibility and success of the project; (ii) opportunities within the project to improve women's access to basic services, economic opportunities or decision making; and (iii) specific components or other mechanisms to ensure that both women and men participate in and benefit from the program/project.

Main interveners	Expected roles in Project preparation
NBA	Coordination of the PPG process Facilitate involvement of countries and stakeholders participation in identification of project activities and institutional arrangement; Secure Letters of Co-financing from development partners; Facilitate organisation of PPG inception and validation meeting for the project document at national and local levels Provide technical input in the Project Documents
Ministries of Water Resources, Agriculture and Environment	Participate in meetings for the identification and validation of Project key actions; Contribute technically in the project document during PP Facilitate the involvement of national partners
Research institutes	Identification of project activities and institutional arrangement Contribute in the elaboration of project documents
Local government, water user coordination units	Identification of project activities and institutional arrangements Facilitate the participation of local communities, specifically women
Community organisations, NGOs, Civil Society	Participation in stakeholders consultations Contribute in the designing of Prodoc
Technical & Financial Partners, regional programs and projects	Create a synergy among their on-going programs and contribute to the project Contribute in the preparation of project documents
Private sector	Identification of project interventions

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 measures that address these risks to be further developed during the project design (table format acceptable).

The AfDB as implementing agency will provide the necessary backup and support to ensure that project activities are implemented in a timely fashion. Key risks to the program are rated medium, and relate to (i) challenges faced by stakeholders and key partners when engaging into programmatic approaches, (ii) competing priorities such as food security, poverty reduction and conservation that may alter long-term political and financial support given to WRM up-scaling, and (iii) hesitancy to consider new knowledge and technical approaches.

The project design mitigates these risks by, among other measures, committing partners and countries up-front to operational alliances at regional and country level across sectors. These alliances are to be backed by key analytical, dissemination, and monitoring tools designed to provide guidance and feedback to those working on the project.

Risks	Risk Level	Mitigation
Institutional risks regarding the large number of countries	L	Under the NBA, efficient coordination mechanisms (Steering Committee, technical direction, Regional PIU, National Focal Structures, National Coordination nits) are established to allow good management of the project.
An unstable political situation in one member country can block the implementation of the entire regional program	M/L	Political risks are considered limited as there is broad political support for the mandate and activities of the Niger Basin Authority amongst its member countries, including continued financing by all riparian states
The project is not owned by the countries because the project is at the regional level		The design of the project with one regional and nine national components facilitates country ownership and allows suspension of activities of a national component in case of socio-political turmoil without affecting the overall program. The available resources can then be reoriented to support activities in others secure sub-basins.
A difference in approach and strategy of intervention in the countries may compromise the objectives of the program across the basin	M/L	Tools, approaches and intervention strategies of project implementation will be developed by the regional component and consequently disseminated within countries. This will ensure harmonization of project interventions.
Climate change impacts are larger/smaller than anticipated levels	M	The region may face more or fewer droughts and floods, but the project is flexible enough to function under changing climate conditions. Relevant tools will be developed and used to guide integration of climate dimensions into project preparation and implementation. "No-regret" approaches will be adopted.
Countries lack national capacity to adequately contribute to ecosystem based watershed management	M	The project will receive technical support and back-stopping by NBA, TA and AfDB, who will also build capacity and ownership of national technicians and partners. Targeted training is planned under component 3 to support capacity building of national partners and local communities. Component 2 of the project will improve the efficiency and sustainability of community actions through targeted trainings for Niger Basin Users Associations and National NGO's engaged on basin resources management and conservation. National 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.

Low participation of communities, specifically women, and low absorptive capacity of local communities	M/L	A stakeholders participation plan will be developed during PPG and apply during project implementation. Key gender marker indicators will be developed and monitored. Community based planning methods will be used to assess community priorities for the allocation of interventions. The project will involve local and international NGOs with experience in community development, community natural resources management and sustainable livelihood activities.
Possibility that key national and regional stakeholders are not effectively engaged in the consultation process.	M/L	Stakeholder consultations and alignment with regional and national strategic plans and programs will mitigate this risk
Weak adhesion to regional governance structures or national contributions fail to materialize	M/L	All member countries of NBA have already adopted the Water Charter for the Niger Basin. Efforts will be made in project implementation to raise awareness about the responsibilities of adhering to the regional governance mechanisms.
Inadequate technical and institutional capacities of Steering Committees and National sub-basin agencies to participate in project activities, affecting project oversight.	M	Targeted capacity building to create critical mass of experts in the national institutions will avert this risk.

Risks: L= Low; M=Medium; S=Significant

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

NBA will perform its coordination roles at several levels:

- at the political level, NBA organizes the Heads of State (HOS) and Council of Ministers (COM) meetings;
- at the IPDACC project level, the AfDB and NBA have organized identification and preparation missions in the period 2012 - 2014 during which potential donors for the program have been identified, including *inter alia* the West African Development Bank, the West African Economic and Monetary Union and KfW; and
- at the GEF intervention level, the two recent GEF initiatives in the Niger Basin (AfDB and UNEP/UNDP) are complementary.
- at the interventions/portfolio level, NBA has organized in 2012 the Regional Workshop for Validating the Draft Report of NBA's updated Strategic Plan (SDAP/IP) and the Regional Steering Committee for Projects and Programs. NBA supports and is supported by projects with partners such as such as CIDA, GIZ, AFD, AWF, WMO, GEF and World Bank;

In terms of coordination, the lead executing organisation is the Executive Secretariat of the NBA through its Technical Division of Operations, who will delegate the project implementation to a Regional Coordination Unit (RCU) 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 NFSs will establish a National Coordination Unit (NCU), to take charge of the project management and execution of the project in each country. The RCU will coordinate the institutional components while the investment components will implemented by the NCUs in each country. International NGOs (IUCN, Wetlands International) and GEF's Small Grant Unit may be requested to support the implementation of actions under Component 2, 3, 4 and 5. AfDB will provide additional technical support and backstopping.

The proposed GEF project is complementary with the GEF project "Improving IWRM, knowledge-based management and governance of the Niger Basin and the Iullemeden-Taoudeni/Tanezrouft Aquifer System (ITTAS)", prepared by UNDP/UNEP. Each project aims at implementing priorities identified in the SDAP/SAP and by Niger Basin countries. At institutional level, clear complementary actions and synergies are expected with the UNDP/UNEP GEF project, focusing on improving coordination and competencies regarding: climate change adaptation, implementing SDAP/IP, aligning IWRM to national context, data collection and management on environment and climate change, and producing/disseminating information between the countries and stakeholders, and on NBA M&E capacity. The 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 terms of dissemination of information to key stakeholders. The UNDP/UNEP approach under GEF is mainly focused on community-based management under the small grants program 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 wide-spread needs there is no duplication of activities and synergy is expected in term of sharing tools, experiences and knowledge.

The project will establish a connection with the current and future initiatives to be carried out by the main Partners of NBA by providing the necessary knowledge and tools for an ecosystem based adaptive management. During Project Preparation in-depth consultations will be carried out in order to establish partnerships and practical modalities for cooperation with on-going initiatives, to avoid duplication and benefit from lessons learned under other relevant initiatives. A plan for cooperation with relevant ongoing and planned initiatives will be prepared during project preparation, including a definition of the roles and responsibilities of the main stakeholders. The proposed project will establish close linkages with the Niger Basin Observatory (NBO) regarding, for example, biophysical and socio-economic basin-wide datasets. The NBO is expected to serve as the final and main custodian of the data generated under the proposed project.

It is noted that the project takes place in 9 countries (mostly Francophone but also Anglophone), which requires substantial additional coordination and management efforts; consequently the requested Project Management (PMC) allocation is 7.5%, of the grant amount. This amount is proportionally allocated to the focal areas and trust funds and falls under GEF Project Management Cost Guidance¹⁴.

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.:

Alignment with PRSPs¹⁵

The project is aligned with PRSPs for NBA's member countries. These strategies generally emphasize healthy ecosystems, poverty reduction and sustainable economic growth. They also identify degradation of natural resources as a key impediment to attainment of results. The project will contribute towards addressing these concerns.

Alignment to National Adaptation Programs of Action (NAPA)

The project is fully aligned with the SAP and SADP/IP and is owned by NBA and the NBA member countries, which have prioritized the project and agreed as well on prioritized project activities. The proposed component 4 is specifically aligned with Action 134 of the Niger Basin SAP, which promotes the development of agro-forestry in the Burkina Faso portion of the Niger Basin.

Alignment with AfDB Regional and Country Strategies

AfDB has developed - in consultation and alignment with the national strategies, plans and PRSPs - Country Strategy Papers and a Regional Integration Strategy Paper (RISP) for West Africa (2011-2015). The project's objective is aligned with the RISP for West Africa, which rests on two pillars. Pillar 1, "Linking regional markets", will support investments in regional transport infrastructure (including navigation), transport and trade facilitation measures, and regional energy production and markets integration. Pillar 2, "Capacity Building (of selected regional institutions) for effective implementation of the Regional Integration Agenda", will focus on capacity building for effective policy and regional projects implementation, financial sector integration, and support to regional research and training centers relevant to the integration agenda. The RISP aims to ensure that cross-cutting issues, such as gender, environment, mitigating the effects of climate change, job creation and inclusive growth, are mainstreamed in the implementation of the strategy. With respect to climate change,

¹⁴ PMC shall not exceed 10 % of GEF project grant for projects requesting GEF projects grant up to \$ 2 million.

¹⁵ Poverty Reduction Strategy Papers (PRSP) present the macro-economic, structural and social policies and programs that the countries will pursue over several years to promote broad-based growth and reduce poverty, as well as external financing needs and the associated sources of financing. They aim to provide the crucial link between national public actions, donor support and the development outcomes required to meet the Millennium Development Goals.

the Bank will continue to implement its Management of Climate Risks and Adaptation (CRMA) Strategy. The proposed project aims at providing community infrastructures at Basin scale towards a better utilisation of the natural endowments of the Basin for the benefits of the rural populations in the member countries. Furthermore, the project aims at building the capacity of the NBA and its National Focal Structures (as well as at community level) towards integrated socio-economic development, ecosystem conservation and natural resources management in the region under conditions of increasing climate variability and risks. The project is thus particularly aligned with the second pillar of the RISP, while addressing and mainstreaming cross-cutting issues identified in the RISP. The Project also supports the relevant pillars in the respective CSPs for NBA's member countries, which generally support i) resilient infrastructure development with a focus on development and rehabilitation of critical economic and social infrastructure (roads, railways, energy, water, health facilities), ii) increased agricultural productivity, and iii) improved governance of natural resources management.

Alignment with other treaties: NBA and its member countries are party to a number of regional and international conventions/ protocols that promote sustainable natural resources, such as the Ramsar Convention, UNFCCC, UNCCD and UNCBD. The Bank's involvement as neutral third party will help contribute to the achievement of these commitments and compliance with international treaties.

Alignment with SDAP/SAP and Shared Vision for the Niger Basin: Components 1 to 3 of this project aim to implement the priority actions defined in the SAP of the Niger Basin which was approved in November 2010 by the NBA-COM. The SAP is the main product of the GEF project implemented with support of the UNDP and World Bank, entitled "Reversing Land and Water Degradation Trends in the river Niger Basin" (RLWDT/NB). It is the final outcome of a regional consultation process involving the grassroots communities living in the national portions of the basin, the member countries and NBA's Technical and Financial 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 the SAP Vision and the Long-Term Environmental Quality Objectives (LTEQO), as well as the elaboration of implementation activities required to effectively achieve the SAP vision. The scope of the proposed project draws substantially from the priorities and LTEQs identified in the SAP.

The project will also contribute to the implementation of the Sustainable Development Action Plan (SDAP) and its Investment Program (IP) for the Niger Basin (updated in 2012), under the component "Protection of the resources and ecosystems", and to various strategic outcomes of NBA's Strategic Plan for 2013-2022. Clear priorities will be established for the interventions to be carried out in order to focus on priority problems identified in the TDA, SAP/SDAP and the Siltation Control Master Plan developed under the PLCE project.

The project contributes to the Shared Vision for the Niger Basin, and 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: i) the water resource sharing with sustainable development objectives, ii) the reasonable and equitable sharing of the water resources among the member States, iii) prior consultation of the States through the Executive Secretariat of the NBA for activities that have significant impact on the Basin's water regime, and iv) immediate mutual information by member States of any situation liable to have an impact on the riparian countries. This Declaration puts Integrated Water Resource Management (IWRM) clearly at the centre of the development process.

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

This project is consistent with the GEF Strategy on International waters (IW) and CCM, such as described in the GEF-5 final programming document (GEF/R.5/25/CRP.1). The first of the IW-objectives the project aims 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 basin, while taking into account the climate variability and change. It also aims at the third IW-objective concerning support to foundational capacity building, portfolio learning and targeted research needs for joint, ecosystem-based management of transboundary water systems. The proposed project is well consistent with the outcomes and targets of the IW-objectives 1 and 3, particularly the outcomes 1.1, 1.3, 1.4, 3.1 and 3.3. The project is in line with the need of integrating climate change

considerations towards reducing climate change vulnerability in the development sector. Particularly the project will contribute to strengthen the climate resilience of vulnerable physical, natural (ecosystems) and social assets. Upstream of the Basin, in Burkina Faso the proposed activities are aligned to the CCM-5, in LULUCF by promoting conservation and enhancement of carbon stocks through sustainable management of land use, land-use change, and forestry, particularly to outcomes 5.1, 5.2 and 5.3 as well as with Forest Landscapes (LD-2) by generating sustainable flows of forest ecosystem services in dry lands, including sustaining livelihoods of forest dependant people, particularly with outcome 2.4 which promotes an increased investments in SFM in dry land forests ecosystems. Finally, Burkina Faso activities will also contribute to Reducing Deforestation (SFM/REDD+) by strengthening the enabling environment to reduce GHG emissions from deforestation and forest degradation and enhance carbon sinks from LULUCF activities (related to CCM-5).

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. On the basis of the priorities identified in the SAP - which take into account the outcomes of the national NAPs and NAPAs - the project will carry out innovating actions at transnational level, in order to ensure the protection of the water and land resources and the preservation of degraded ecosystems. The potential consequences of climate change and climate adaptation processes will be integrated in the management decisions. Additional output is also expected from the project regarding the overall fund mobilization for SAP implementation and communities financing, a better awareness of the public and capacity building of the stakeholders to carry out actions.

B.3. GEF agency's comparative advantages for implementing this project


Firstly, the project objectives are anchored in AfDB's priority areas as stated in the Bank's Ten Year Strategy (2013-2022) and in its RISP Paper for West Africa (2011-2015), and secondly the Bank is a key partner of NBA, maintaining six field offices in the Niger basin countries. Thirdly, the Bank would be building on the foundation laid through its support to the "Silt Control Program in the Niger Basin" (PLCE), which the Bank has financed and implemented from 2005 to 2010. The purpose of the program was to contribute to the improvement of the living conditions and livelihoods of local communities, by limiting the erosion and siltation processes threatening the Niger River. The main project activities were dune fixation, recovery of degraded land and riverbank protection. The results achieved are well appreciated by all stakeholders and include: i) the recovery of about 38,000 ha threatened by siltation, ii) the development and dissemination of best practices for dune fixation and recovery of degraded lands, and iii) the development of a Master Plan for Silt Control in the Niger Basin including an Action Plan and an Investment Program. The implementation of PLCE, through pilot actions in three countries of the basin (Burkina Faso, Mali and Niger), has furthered the development and validation of approaches and techniques for the fight against erosion and siltation in the Niger Basin. The project has also demonstrated the importance of involving local authorities and communities for achieving implementation success. Given the success of the PLCE program, NBA requested the Bank to lead the preparation of the second phase program (IPDACC/NB), which aims to bring erosion and siltation control actions on a larger scale to the nine countries of the Niger Basin. Finally, by supporting this project the Bank continues to demonstrate its commitment to sustainable development projects through poverty eradication, promotion of economic growth and reversing environmental degradation in the Niger Basin region.

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 letters with the template; for the SGP, use this OFP endorsement letter)

NAME	POSITION	MINISTRY	DATE
Mr. Delphin AIDJI	Secrétaire General Adjoint du Ministère - Benin	Ministère de l'Environnement, de l'Habitat et de l'urbanisme	05/29/2013
Mr. Mamadou HONADIA	Permanent Secrétaire- Burkina Faso	Permanent Secretariat for the National Council for Environment and Sustainable Development	02/28/2014
Mrs. Alimata KONE-BAKAYOKO	Secrétaire Permanente- Cote d'Ivoire	Ministry of Economy and Finance, Commission Nationale du FEM	04/23/2013
Mr Gaourang MAMADI N'GARKELO	Director - Chad	Ministry of Environment and Fisheries	05/22/2013
Mr. Ahmadou Sebory TOURE	General Director - Guinea	Fonds de Sauvegarde de l'Environnement	04/23/2013
Mr. Justin NANTCHOU NGOKO	Director - Cameroun	Ministry of Environment and Nature Protection	05/07/2013
Mr. Sekou KONE	Director, Multilateral Environmental Agreements Department - Mali	Agency for Environment and Sustainable Development (AEDD)	05/28/2013
Mr. Yaye SEYDOU	General Director of Planning - Niger	Ministry of Planning, Territorial Management and Community Development	06/10/2013
Mr. Momoh Tahir Abu	Director - Nigeria	Federal Ministry of Environment	07/12/2013

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	Project contact person	Telephone	E-mail address
TOURINO SOTO, Ignacio African Development Bank		07/15/2013	GARBA, LAOUALI	+216- 71101990	L.GARBA@AFDB.ORG

ANNEX: PRELIMINARY IPDACC PROJECT INTERVENTION AREAS

Countries	Geographical Area of the Project
BENIN	Départements de Borgou ; Département d'Alibori
BURKINA FASO	Régions Est, Centre-Est, Centre-Nord, Hauts Bassins et Plateau Central
CAMEROON	Région du Nord (Départements de la Bénoué, Mayo Loti, Faro) Région de l'Extrême Nord (Départements de Mayo Tsanaga)
IVORY COAST	Régions de la Bagoué, de Folon et de Kabadougou
GUINEA	Régions de Haute Guinée et de la Guinée Forestière
MALI	Régions de Koulikoro, Sikasso, Ségou, Mopti, Tombouctou, Gao et Kidal
NIGER	Régions de Tillabéri, de Dosso, de Tahoua, de Maradi et de Niamey
NIGERIA	Upper Niger, Sokoto Rima, Upper Benue and Anambra-Imo River Basins
CHAD	Région de Mayo Kebbi Ouest (Départements de Mayo Dalla et de Lac Léré) Région de Mayo Kebbi Est (Département de la Kabia)