Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 12-Jan-2018 | Report No: PIDISDSC20060

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Parent Project ID (if any)	Project Name
Western Africa	P161262		Building Climate Resilience in the Niger Basin (P161262)
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
AFRICA	Mar 05, 2018	May 31, 2018	Water
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	Niger Basin Authority	Niger Basin Authority	

Proposed Development Objective(s)

The program Phase 1 development objective is to strengthen NBA's capacity for integrated, transboundary water resources management.

Financing (in USD Million)

Financing Source	Amount
IDA Grant	30.00
Total Project Cost	**30.00**

Environmental Assessment Category	Concept Review Decision
A-Full Assessment	Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

The Niger Basin, located in West and Central Africa, is one of the major transboundary basins in Africa. Its 1.5

million km^2 active hydrographic basin spans over the territory of nine countries: Benin, Burkina Faso, Cameroon, Chad, Guinea, Ivory Coast, Mali, Niger, and Nigeria[1]. Its population of 130 million inhabitants is growing rapidly, expected to reach 180 million people by 2025. Nigeria, Mali, and Niger account for close to 90 per cent of the basin's population and 70 per cent of its territory. Except for Nigeria, most of the population in the basin is rural and depends on agriculture, animal husbandry or fishing for its livelihood, but urbanization is growing. The basin includes the capital cities of Mali, Niger and Nigeria.

Table 1: Demographic data of each country within the basin (adapted from BRL, 2007)

Countries	Rural population in the basin in 2015		Total population in the basin			Basin Hydrologically active area	
	2015	% of the total population	2015	2025	2015 % of total	km^2	% of total area
Guinea	2,212,000	77%	2,861,000	3,799,000	2%	98,095	8%
Ivory Coast	380,000	75%	504,000	624,000	0%	23,550	2%
Mali	7,313,000	58%	12,522,000	16,355,000	9%	263,168	21%
Burkina Fa	3,500,000	100%	3,500,000	4,538,000	3%	86,919	4%
Niger	9,524,000	76%	12,498,000	16,697,000	9%	87,846	7%
Bénin	1,241,000	70%	1,767,000	2,742,000	1%	44,967	4%
Chad	1,082,000	100%	1,082,000	1,385,000	1%	19,516	2%
Cameroon	5,906,600	70%	8,438,000	11,086,000	6%	86,381	7%
Nigeria	44,589,000	47%	94,649,000	121,159,000	69%	562,372	44%
Total	75,747,600	55%	137,821,000	178,385,000	100%	1,272,814	100%

Nota Bene: Population data for 2015 and 2025 were estimated based on projections from the 2005 population.

Poverty and inequalities are widespread in the Niger Basin and some areas are prone to violence. Six of the nine Basin countries are among the 20 poorest in the world, with large income disparities in the wealthier basin countries. Human Development Index[2] (HDI) are mostly low, with all countries ranking between 152 and 190th[3]. Niger has the lowest HDI in the world. Political instability and sub-regional security threats, particularly in central and northern Mali[4], western and northern Niger, northern Burkina Faso and the Maritime Delta of Nigeria, exacerbate the vulnerability of the basin's population and are a challenge for carrying-out development actions.

Table 2. Poverty and Human Development Index in the basin countries

Countries	Multi-Dimensional Poverty Index	HDI Indicator
Guinea	0.425	0.414
Ivory Coast	0.307	0.474
Mali	0.456	0.442

[1] The non-hydrologically active share of the Niger Basin includes Algeria. Algeria is not a member of the Niger River Basin Organization. Hence, in this document unless otherwise specified, we refer to the active basin.

[2] The HDI is a summary measurement of basic achievement levels in fundamental dimensions of human development. It is a geometric mean of normalized indexes of 4 indicators: life expectancy for health, expected years of schooling, mean of years of schooling for education and Gross National Income per capita for standard of living.

[3] UNDP, 2017 - http://hdr.undp.org/en/countries/profiles/

[4] In Mali armed attacks, banditry and insecurity in the central and northern regions have caused population displacements and stifled farming and transhumance. Some 37,000 people are internally displaced.

Burkina Faso	0.508	0.402
Niger	0.584	0.353
Benin	0.343	0.485
Chad	0.545	0.396
Cameroon	0.260	0.518
Nigeria	0.279	0.527
Average	0.412	0.446
For reference, Morocco	0.069	0.647

Source: UNDP, 2017 - http://hdr.undp.org/en/countries/profiles/

The value of the Niger River System resides in its contribution to water, food, energy, and job security, to transport and to biodiversity. For thousands of years, the river, its tributaries and connected lakes and wetlands have supported local populations with diverse water-dependent livelihoods such as flood-recession agriculture, cattle grazing and drinking, fishing[5] and hunting, and has constituted a particularly important lifeline in the arid and semi-arid Sahel region. In the Niger Basin Countries, agriculture (including farming, livestock husbandry and fisheries) contributes 20 to 50 per cent of GDP and roughly two-third of the population depends on it for its livelihood. Moreover, those mostly family fishing and agro-pastoral systems are labor intensive and generate significant indirect employments (processing, trade and crafts) [6]. In a region with a structural deficit in food production and increasing temperature and rainfall variability and uncertainty, the river, its tributaries and connected groundwater resources are key to increase agricultural productivity and resilience to climate change. The role of the river system for navigation while still important in Nigeria has decreased in the rest of the basin with the development of roads and trains, the deterioration of ports infrastructure and the sedimentation of the river bed[7]. Today, the river is important for the energy security of the region, with an installed, partially integrated, hydro-power capacity of 2,000MW[8], mostly in Nigeria. Finally, the Niger hydro-system sustains some of the most significant biodiversity areas in the World, notably the Inner[9] and Maritime Deltas in Mali and Nigeria respectively, both Ramsar sites.

Sectoral and Institutional Context

Sectoral context

The contributions of the Niger hydro-system to drinking water, food, energy and job security in the region, as well as navigation and biodiversity could be further developed, to respond to the exponential growth in water demand of a rapidly growing, increasingly urban population, and to reduce the existing food and energy shortages

[5] WWF has identified 19 areas particularly important for fish production across the basins, of which two stands out the Inner and Maritime Deltas; the other sites are mostly in the Upper Basin and the Benoué sub-basins.
[6] World Bank, 2006: Water Resources Management & Development Opportunities in the Niger River Basin. Policy Note. Economic and Sector Work. Washington, DC: World Bank.
[7] In Nigeria, the overall navigable network in the Marine delta, the Niger River and its tributaries total 6,000 km[7]. Upstream of Niamey, navigation is possible on 170 km between Tillabery and Meana. Upstream of Bamako, small fishing vessels navigate seasonally (August-November) to Siguiri and similarly through Guinea, in the low valleys of the Niger River and the Milo and Tinkisso tributaries.
[8] World Bank, 2006: Water Resources Management & Development Opportunities in the Niger River Basin. Policy Note. Economic and Sector Work. Washington, DC: World Bank. Nigeria is exporting electricity to Niger and Benin in the Niger Basin.
[9] During the rainy season, the Inner Delta forms a large flood plain of 20,000 to 30,000 km^2, facilitating the cultivation of rive, cotton and wheat as well as cattle herding and fishing. The size of the flooded area is subject to strong annual variations, depending on the discharge in the Upper Basin.

prevalent in the region. There are indeed significant potentials to increase and/or optimize irrigation production and hydropower generation from existing and new infrastructure.[10]For example, irrigation efficiency/productivity in the Office du Niger[11], the largest water user in the basin, could be significantly increased, postponing the need for large dams upstream in the basin. Similarly, the hydropower generation of several existing dams could be increased[12]. As for new infrastructure, only about twenty per cent of irrigation and hydropower potentials might have been developed in the basin[13].

Yet, the Niger hydro-system and the population, economies and biodiversity relying on it are vulnerable to several climate and water-related shocks and stresses, many of them transboundary in nature.

- Managing competing water demands, notably between upstream and downstream users and between different sectoral uses (i.e. irrigation, hydropower, drinking water, flood-recession crops and pasture, fishing and hunting), including the environment, will be one of the basin's main development challenges in the coming decades. Intensifying water use, while necessary, will not be without impacts and should be done with care. Most notably, it will be important to strike a balance between:
  (i) the regulation of river flows (i.e. reservoirs) and increased water withdrawals in the Upper Basin (i.e. Guinea and Mali), for irrigation and hydropower and the preservation of the Inner Delta[14] ecosystem in Mali (i.e. biodiversity and the environmental services: flood-recession agriculture; grazing land for cattle, fishing and transport);
  (ii) the regulation of river flows and increased water withdrawals for irrigation, hydropower and navigation in the "Moyen Niger" (i.e. Mali, Niger, Burkina Faso, Benin) and the development of irrigation and hydropower potentials in the "Lower Niger" (i.e. Nigeria);
  (iii) the regulation of river flows and increased water withdrawals in the Upper Niger, Medium Niger and the Benue (i.e. Chad, Cameroon and Nigeria) and the preservation of the Maritime Delta ecosystem (i.e. biodiversity and ecological services: fishing) in Nigeria.

In this context, priority should be given to increasing the performance of existing infrastructure; reducing/postponing the need to build new dams; as well as strengthening NBA's capacity in its water allocation function (i.e. basin planning; notification and EIAS of transboundary projects; monitoring of water use).

- The basin is subject to high climate and hydrological variabilities. Rainfall and river flows are highly variable in space and time in the basin. Spatially, the northern part of the basin is subject to increasing water scarcity due to low levels of precipitation and increasing water uses (Mali, Niger, North of Burkina Faso and North Benin). Damages from flood (i.e human settlement and agricultural land) are becoming increasingly acute

[10] In 1997, FAO estimated the irrigation potential in the basin of more than 2 000 000 ha[10]. In 2006, only 400 000 were irrigated in the Basin, mostly in Mali (250 000 ha) and in Nigeria (113 000 ha). Similarly, currently the basin has a hydropower production capacity of 2 000MW, but the total potential new hydropower development is estimated at approximately 11 100 MW[10].
[11] The 2016 master plan for the Office of Niger indicates that overall water use efficiency is about 38%, and only about 32% during the dry season.
[12] The rehabilitation of three turbines of the Kanji dam in Nigeria under DREDGE1, increased energy production by 340 MW or 8% of Nigeria's electric consumption (Dregde 1, national ICR, 2016)
[13] Niger Basin Master Plan (NBA,2008)
[14] The Inner Delta plays also a critical role in the regulation of the Niger River (decrease in high flows during the rainy season and maintaining baseflow during the dry season); in trapping the large concentration of sediments coming from the Upper Niger Basin and in groundwater recharge. It is also one of the major evaporation hotspot in the basin.

and frequent in the Moyen Niger (Benin, Niger), Lower Niger and the Benue tributary (Nigeria and Cameroon) due to a combination of land degradation[15], river bed sedimentation and changes in rainfall patterns. In the Sahelien part of the basin, the onset of the rainy season has become more unpredictable and its length has generally decreased, causing dramatic crop losses for rainfed agriculture[16].

- Managing sediment and contamination loads, resulting mostly from increased population pressures on land and vegetation cover.
  (i) Sedimentation in the basin results from erosion of the land due, mostly by agricultural malpractices, bush fires, overgrazing, and deforestation for firewood; construction material and agriculture expansion. Erosion is particularly acute in Burkina Faso, Benin, Niger and Mali tributaries causing sedimentation in the Moyen Niger and in the Benue causing sedimentation in Cameroun (i.e. Lagdo) and Nigeria (i.e. Kanji and Jebba). Sedimentation exacerbates flood risks, notably in the Middle Niger (i.e Mali, Niger and Benin); decrease the useful life and performance of hydraulic infrastructure (i.e. reservoirs in Burkina Faso, Cameroun and Nigeria and irrigation perimeters) and decrease the navigability of the river and its tributaries[17].
  (ii) Little is known about water quality in the basin, which today is likely a local problem due to the relatively low level of industrialization and urbanization in the countries located upstream. Yet concerns are growing about informal mining in Guinea, Mali and Ivory Coast as well as oil production in the Maritime Delta of Nigeria. Contamination is expected to increase as a result of population growth, urbanization, mining/oil, irrigation and agro-industries development, becoming ultimately a transboundary issue and putting at risk biodiversity; fishing activities downstream and increasing the prevalence of water-borne diseases.

Climate change is expected to compound the many challenges mentioned above. Climate and hydrological variabilities are expected to continue in the future and may well become more pronounced at a seasonal, annual and decadal timescales, increasing the frequency and intensity of floods and droughts. Temperatures will rise by at least two degrees, likely more, leading to greater demand for water. Most models agree that climate change will impact water resources by changing average annual precipitation in unpredictable ways[18]. Recent historical trends have shown an increased variability in the on-set and length of the rainy season. Changes in rainfall patterns will seriously modify the dynamics of the river itself and will impact water-dependent sectors, like agriculture or hydropower. Existing coping mechanisms may well be insufficient and livelihood strategies will need to adapt. Changing precipitation patterns may also lead to more extreme floods, which may endanger the safety of the basin's dam, with important repercussions downstream. It is therefore also important to ensure that dams are properly rehabilitated to be able to buffer these extreme events.

[15] In the Sahel, runoff coefficients have been increasing due to a reduction of vegetation cover and a modification of soil structure, during prolonged dry periods; translating in increased runoff during precipitation events and reduced groundwater recharge and therefore baseflows during the dry periods.
[16] In Niger, most regions experienced severe rainfall drops in 2 to 3 years out of 10 between 1980 and 2009 (Agricultural sector risk assessment in Niger, 2013)
[17] World Bank, 2005. The Niger River Basin: A Vision for Sustainable Management
[18] The newer CMIP5 projections indicate average annual precipitation ranging from +30percent to -10percent.

Summary of transboundary water issues per section of the river and country

Section of the Niger Basin / countries	Main transboundary issues
Upper Niger (Guinea, Ivory Coast, Mali)	- Moderate degradation of land and forest cover (Guinea and Ivory Coast) - Contamination from informal mining (Guinea, Mali and Ivory Coast) - Low water productivity in the "Offices" of Mali, largest water user in the basin - Sub-optimal power generation from existing dams in Mali
Inner Delta (Mali): Wetland of international significance (RAMSAR), providing fish, pasture land and flood-recession agriculture for more than 2 million people	- Vulnerable to a reduction of annual flood and overall yearly inflows, that could result from an increase in water withdrawals from irrigation (i.e. "offices"); river flow regulation from future dams (i.e. Fomi) or/and climate change
Middle Niger (Mali, Niger, Benin, Burkina Faso)	- Flooding particularly in Niger and Benin - Erosion and Sedimentation in all countries - Invasive Species (Water Jacinth)
Lower Niger and Benue (Chad, Cameroun, Nigeria)	- Flood risk in Nigeria and Cameroon - Land degradation in Chad and Cameroon, contributing to sedimentation in Cameroon and Nigeria - Sub-optimal power generation from existing dams in Nigeria (i.e. Kainji and Jebba) and Cameroon (i.e. Lagdo)
Maritime Delta (Nigeria): wetland of international significance, source of livelihood to about 1 million fishermen	- Vulnerability to increase water withdrawals and regulation from upstream countries - Invasive Species (Typha, Water Jacinth)

Institutional context

The Niger Basin Authority (NBA) is necessary for a coordinated and peaceful development of the basin water resources; but it struggles to fulfill its mandates. It was created in1980 with the overall goal to "promote cooperation between the nine riparian countries and insure the integrated development of the Niger Basin in the areas of energy, hydraulic, agriculture, animal husbandry, fishing and aquaculture, agro-forestry, transport and communications and industry", to be achieved focusing on five specific objectives: (1) to harmonize and coordinate national policies for the beneficial use of water resources; (2) to participate in the preparation and implementation of the basin integrated development plan; (3) to promote and participate in the design and operation of infrastructure and joint-interest projects; (4) to control and regulate navigation on the Niger River and its tributaries; and (5) to participate in project formulation and in the mobilization of financing for studies

and works required for the development of the basin water resources[19]. The 2010 Water Charter and its Annexes further detail the roles of NBA and the national governments, the rules of the games, and the tools at their disposal to fulfill their respective roles[20].

Since its creation, close to forty years ago, NBA has made good progress in fulfilling its objectives, but much remains to be done. So far, it has been active in implementing objectives 1, 2 and 5 above and has recently made some steps towards objective 3. NBA has not been active in navigation (objective 4). The detailed attributions included in the Water Charter have been partially implemented. NBA has developed performant WRM management tools (i.e. water information system; water allocation model; basin master plan; flood alert systems) and procedures to carry out key functions (i.e. annexes of the water charter on environment protection and notification of transboundary projects), but those technical and legal tools are not yet used at their full potential and three key annexes of the Water Charter still need to be developed (i.e. Coordinating management of transboundary dams; sharing of costs and benefits and development and management of shared and joint-interest projects). The water information system, fed by a relatively performant hydrological network, contains up-to-date information on the basin hydrology; but very little information on water use, water quality, groundwater or the status of the biodiversity hotspots (i.e. Inner and Maritime Deltas). The sustainability of the hydrological observation network is not guaranteed, having been financed up to now by subsequent development partners' projects. The decision support tools (i.e. alert systems, water allocation model) could be further used to increase their impacts on the ground. NBA has had a challenge mobilizing financing and monitoring the implementation of the Niger Basin 2008 Water Master Plan. Moreover, this plan has not enough considered the potential effects of climate change and the environmental and social impacts of proposed infrastructure; particularly on the Inner Delta and the development of major tributaries, such as the Benue River.

Many reasons explain NBA's mixed performance. They need to be addressed for NBA to meet its goals and further build the trust and support of Member States and Development Partners. There are many reasons for those difficulties, some inherent to the basin geography; others political, organizational, technical and operational. One major issue has been the uneven political support to NBA from its member states. Nine countries, of which one Anglophone, share the basin with different stakes in its resources, inducing a slow and complex decision making process and difficulties to identify common interests[21]. Member States too often manage water resources in a unilateral manner and NBA has a hard time taking a supranational posture, even if its mandate

[19] Since its creation, experts and Member States have had different views about what should be the scope of NBA's mandate; some consider it should focus on water and related natural resources, others think it should encompass overall basin development and economic integration.

[20] The Water Charter and its annexes have defined the following tools and rules, such as: notification (i.e. projects or emergencies of transboundary impacts); common or joint-interest projects (i.e. ownership, management, financing, monitoring); conflict management between riparian countries (i.e. mediation, arbitration); definition of environmental norms (i.e. ambient water quality standards; discharge standards; environmental flows); environmental impact studies; environmental monitoring (i.e. water quality, water quantity; withdrawals, discharges and other environmental aspects); environment information system and reporting; water-use and pollution fees.

[21] Two groups of countries prevail: (a) the countries that share the course of the Niger River (Guinea, Mali, Niger, Nigeria and to a lesser extent Benin) or its major tributary, the Benue (Cameroon) reckon that NBA's role is the overall management and allocation of water resources. These countries could derive significant benefits from the river. (b) Ivory Coast, Chad and to some extent Burkina Faso have a very small share of the basin and are located upstream. Their interest in NBA mostly derives from the possibility of benefitting from some projects in the SDAP or CRIP.

calls for it in certain situations. There are insufficient synergies between ABN, national and other regional (i.e. CILSS, CEDEAO, UEMOA) programs. Funding of NBA, which depends entirely on Member States' contributions and development partners' grants and credits, has been irregular and relatively limited compared to the challenges at hand. NBA has been the subject of several disruptive restructurings and high turn-over of managerial staff. Key positions in the Executive Secretariat and sometimes at the National Focal Structures are filled based on political rather than technical considerations.

To address the above challenges, the Niger Basin Climate Investment Plan (CRIP) approved and presented by NBA Heads of State and presented at COP21 in 2015, has identified interventions for a total amount of US$3.1 billion and is part of the World Bank Africa Climate Investment Plan. A complementary institutional audit of ABN is being prepared, and will include measures to improve the performance and accountability of ABN.

The proposed Regional Program, to be carried in three phases, will support the implementation of targeted, transboundary interventions of the CRIP, complementary to those financed by other development partners and strengthen ABN's capacity for transboundary, integrated WRM.

Relationship to CPF

The Program is consistent with the World Bank Country Partnership Strategies (CPS) or Framework (CPF) developed with each of the nine countries involved, as summarized below:

- Chad. The Program responds perfectly to key criteria underpinned for the FY16-20 CPF engagement (signed 2015/11/03, report no. 95227) through "strengthening resilience to climate change and building dialogue for an effective management of transboundary resources". Effective transboundary management was mentioned under the CPF Engagement "Theme" 2 and 3 (ii) improving returns to agriculture and building, value chains; and, (iii) building human capital and reducing vulnerability.

- Mali. The Program strongly coincides with the CPF FY16-19 engagement (signed 11/03/2015, report no. 94005) which supports the on-going efforts by the Republic of Mali to mitigate risks such as climate change and lower flows in the Niger River Basin. The Program is relevant to two "Areas of Focus": (i) improve governance and (ii) build resilience. Specifically, Area of Focus (ii) aims amongst others at ensuring the resilience of rural communities to climate variability and change. In this regard, it promotes a strategic shift for building resilience through increasing agriculture productivity (they mention the inefficiency of large irrigated systems of the Office du Niger), and adapt to climate shocks. The CPF also mentions Niger Basin Climate Resilience Investment Plan (CRIP) as part of the WBG's ongoing long-term support to the Niger Basin Authority (NBA).

- Niger. The Program responds perfectly to key criteria underpinned for the CPF engagement FY18-21 (not yet signed) to achieve resilient growth and reduce vulnerability in Niger. In particular, the regional project Building Climate Resilience in the Niger Basin is mentioned under Objective 1: "Increase rural incomes and diversified output in the agriculture and livestock sectors". Through objective 1, the goal is to support reforms in agriculture through a mix of policy and investment

lending, with a focus on creating opportunities for women and youth to mitigate the impacts of climatic changes.

- Cameroon. The Program is consistent with the key focus areas of the latest CPF engagement FY17-21 (signed 02/28/2017, report no. 107896-CM) which mentions this Program within the IDA 18 regional integration projects (table 2 page 44) and states regional integration as a critical catalyst for growth and put a special attention to building institutional and technical capacity to help the Government of Cameroon becoming a leader in climate adaptation measures for water resources management. Under focus area i) Addressing multiple poverty traps in rural areas, the aim is to increase productivity and access to markets in the agriculture sector in an environmentally sustainable way and improve the access to water and electricity. Under focus area ii) fostering infrastructure and private sector development one of the goals is to generate electricity using hydropower.

- Guinea. The Program is consistent with the latest CPS engagement FY14-17 (signed 09/04/2013, report no. 76230-GN) under the second Strategic Areas of Engagement: ii) Stimulate Growth and Economic Diversification, where Guinea's large hydropower potential is mentioned as well as promoting a diversified and inclusive growth with exploiting the energy potential and agriculture for food security as well as attenuating natural resources degradation and the adaptation to climate change.

- Nigeria. The Program aligns with the latest CPS engagement FY14-17 (signed 03/13/2014, report no. 8201-NG) supporting Nigeria goals under Strategic Cluster i) Federally-led structural reform agendas for growth and jobs including power generation, and reducing vulnerability of agriculture sector to land degradation, and climate change. Also, laying the foundation for socially and regionally inclusive growth under Strategic Cluster ii) Quality, Effectiveness and Efficiency of Social Service Delivery at State Level for Greater Social Inclusion with a focus on enhancing the climate resilience of the country's development.

- Benin. The Program aligns with key pillars of the CPS FY13-17 (signed 03/05/2013, report no. 75774-BJ) related to Pillars i) Increasing sustainable growth, competitiveness and employment, and ii) Improving service delivery and social inclusion. The CPF mentions transboundary water resource management, recurrent floods, and irrigation. The pillars are relevant to the activities in Benin that will be part of the Program mainly: dam rehabilitation and flood protection.

- Burkina Faso. The Program supports the CPS Strategic Objectives 1 and 3 to achieve strong and sustainable economic growth with a particular emphasis on environment sustainability. Specific actions include working with the Government to mitigate the impact of natural hazards, implementing measures to adapt and mitigate climate change and reducing risks through hazard early warning response systems.

- Côte d'Ivoire. The Program aligns with key Focus Areas of the CPF FY16-19 (signed 08/17/2015, report no. 96515-CI) including Focus Area i) Accelerating Sustainable Private Sector-Led Growth

which aims to improve agriculture productivity and ii) Building Human Capital for Economic Development and Social Cohesion which promotes investments and structural measures for better handling environmental threats affecting livelihoods, including man-made and weather related disasters as well as climate change.

C. Proposed Development Objective(s)

The proposed project concerns Phase 1 of a regional Series of Projects (SoP) for the Niger Basin.

The Project development objective is to strengthen NBA's capacity for integrated, transboundary water resources management.

Key Results (From PCN)

Phase 1 Key Results

- Updated Niger Basin Master Plan approved by the council of Ministers
- Increased use of NBA environmental information system for decision making related to basin planning, notification and flood alerts

D. Concept Description

The project will have two components:

1. Strengthening NBA's capacity for transboundary, integrated WRM, including:

(i) Planning:
- Basin Planning. Update the 2007 Niger Basin Master Plan, better taking account environmental and social dimensions, climate change and the development of key tributaries, such as the Benue River.
- Pre- Feasibility of Navigation. (i) Support the pre-feasibility studies of the Niger River Navigation Program, co-financed by the West African Development Bank (BOAD) and (ii) support for the financing of international technical assistance for the review of studies.

(ii) Environmental Information System and associated decision making tools and its coordination with National Information Systems, including:
- Consolidation of the hydro-met observation network, including data collection, transmission, treatment, storage and security;
- Strengthening knowledge and monitoring of water quality and water use, identifying water contamination hotspots, and conducting an inventory of main polluters and water users;

- Building knowledge and monitoring of the health of key biodiversity hotspots and modeling of the Inner and Maritime Deltas environmental health services and biodiversity value based on the intensity of the annual flood;
- Development, updating and use of decision-making tools including the water allocation model, flood risk maps and the flood prediction system;
- Inventory of transboundary dams, including safety assessments.

(iii) Operationalization of the Water Charter including (i) support for the harmonization of national water policies with the Water Charter; (ii) specific support for the implementation of Annexes 1, 2 and 3 of the Water Charter through the development of regulatory and technical procedures and instruments;

(iv) Strengthening NBA's operational capacity, dissemination of good practices and project implementation support

- Strengthen NBA operational capacity based on key recommendations from the complementary institutional audit; including independent financing mechanism feasibility (i.e. fee on mining industry).
- Dissemination of good practices, including capitalization and dissemination of good practices implemented within the framework of the NBA projects.
- Program implementation support and coordination.

2. Financing feasibility studies for subsequent phases of the program that will finance country level investment in the nine Niger Basin countries.

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The Project location is the Niger Basin. This project is Phase 1 of a broader SOP program. Phase 1 activities will consist in Technical Assistance to NBA, including the feasibility studies for investments in countries to be implemented under subsequent phases of the SOP.

B. Borrower's Institutional Capacity for Safeguard Policies

NBA has been the implementing agency of several projects financed by the Bank and other Development Partners. The entity is familiar with World Bank safeguards policies. As phase 1 will consist of technical Assistance to NBA and feasibility studies including environmental and social studies for country level investments, NBA environmental safeguards current capacity will be further assess and relevant measures proposed to ensure that all environmental and social due diligence are carried out in fully compliance with WB category A requirements. The ABN environmental and social team will work closely with the relevant countries that investments will be selected for phases 2 and 3. The EA process will proceed to an in-depth institutional capacity assessment during phase 1 and relevant measures proposed.

C. Environmental and Social Safeguards Specialists on the Team

Demba Balde, Social Safeguards Specialist
Emeran Serge M. Menang Evouna, Environmental Safeguards Specialist

D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	Phase 1 does not include any investments but will support the feasibility studies related to Phase 2 and 3 Considering the possibility of large-scale water infrastructure investments during phase 2 and 3, the program is classified as category A in support of good practices. As the activities list and locations of the phases 2 and 3 are not yet known, No safeguards instruments will be prepared prior appraisal of the project phase1. The consultations related to Phases 2 and 3 safeguards instruments preparation will fully be in compliance with category A requirements. The team will ensure that the decision on the list of investments and locations are finalized between NBA and the countries as soon as possible after the Boar approval of phase1 so that the preparation of feasibility studies including safeguards instruments can start.
Natural Habitats OP/BP 4.04	Yes	Several activities will have impacts on critical natural habitats in the NBA including RAMSAR's sites. The relevant assessment will be undertaken during the preparation of EA process to be carried out during the implementation of phase 1 and remedial measures proposed.
Forests OP/BP 4.36	Yes	The policy is triggered as the project intends in phase 2 to support soil and water conservation measures to reduce flooding in at least 4 countries (Benin, Burkina, Cameroon and Ivory Cost), most of these measures will consist to afforestation and reforestation. The project will avoid financing any activity that should have any negative impact in the natural forests. The EA process to be carried out during phase 1 implementation will proposed relevant measures to comply with the policy.
Pest Management OP 4.09	No	The project activities are not intended to increase the use of chemical pesticides.
Physical Cultural Resources OP/BP 4.11	Yes	The policy is triggered as the activities to be financed in Phases 2 and 3 will imply digging activities such as construction. The EA process will carry out an

		assessment and propose relevant measures that will preserve physical cultural resources during the implementation of activities in phases 2 and 3.
Indigenous Peoples OP/BP 4.10	No	The Policy is not triggered because the indigenous people as stated in the Policy are not located in the project areas
Involuntary Resettlement OP/BP 4.12	Yes	The policy is triggered as the proposed activities in phases 2 and 3 will probably induce land acquisition, involuntary resettlement or access restriction. As the activities list and locations of the phases 2 and 3 are not yet known, No safeguards instruments will be prepared prior appraisal of the project phase1. The relevant instruments will be prepared during the implementation of the project phase 1.
Safety of Dams OP/BP 4.37	Yes	The policy is triggered as the project intends to support the preparation of feasibility studies related to dam rehabilitation. As this stage the list of dams to be rehabilitated in phases 2 and 3 are not yet known. But the countries indicated their willingness that ABN supports incorporated dams rehabilitations as potential eligibility activity for phase 2 and 3. All relevant due diligence will be undertaken at the time the list of dams to be rehabilitated is available in the targeted countries.
Projects on International Waterways OP/BP 7.50	Yes	The policy is triggered as the several activities during phases 2 and 3 will involved the use of international waterways within ABN NBA area. Once the list of activities is known the relevant due diligence will be done.
Projects in Disputed Areas OP/BP 7.60	No	The policy is not triggered as the project activities will all be implemented out side of any disputes areas as defined by the policy.

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Feb 28, 2018

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

No safeguard instruments will be prepared during the preparation phase of this Project. This is because the investments, to be carried at country level in subsequent phases of the program and for which this project finances some feasibility studies, are still unknown. The preparation of specific studies will be considered as phase 1 outcomes. The team will work closely with ABN and countries to ensure the lists and locations of phases 2 and 3 investments are known as early as

possible so that the environmental and social due diligence can start in fully compliance of category A projects requirements.

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