

PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC8934

Project Name	Niger River Basin Management Project (P149714)
Region	AFRICA
Country	Africa
Sector(s)	Hydropower (30%), General water, sanitation and flood protection sector (30%), Sub-national government administration (20%), Agricultural extension and research (20%)
Theme(s)	Regional integration (35%), Social Inclusion (15%), Environmental policies and institutions (15%), Water resource management (35%)
Lending Instrument	Investment Project Financing
Project ID	P149714
Borrower(s)	Niger Basin Authority (NBA)
Implementing Agency	Niger River Basin (NBA)
Environmental Category	B-Partial Assessment
Date PID Prepared/ Updated	10-Oct-2014
Date PID Approved/ Disclosed	24-Oct-2014
Estimated Date of Appraisal Completion	14-Nov-2014
Estimated Date of Board Approval	27-Jan-2015
Concept Review Decision	Track I - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

The Niger River Basin is shared by ten countries in West and Central Africa: Algeria, Benin, Burkina Faso, Cameroon, Chad, Ivory Coast, Guinea, Mali, Niger and Nigeria. Four of these countries, Burkina Faso, Chad, Mali and Niger, are land-locked. For thousands of years, the 4,200 km long Niger River has supported the riparian population with diverse livelihoods such as farming, cattle grazing and fishing, and plays a particularly important lifeline in the arid and semi-arid lands of the Sahel. The river basin has surface area of nearly 1.5 million square kilometers and is marked by a mosaic of climates, ecosystems, human settlements, and agricultural production systems. The basin has a rich and diversified fauna and flora and several major protected areas, notably the Niger Inner Delta wetland in Mali. However, these habitats are threatened by pollution, erosion in the Sahelian watersheds, and over-fishing.

The population in the basin is highly vulnerable. With a population of over 110 million, and an annual growth rate of about 2.6 percent (2005 figure), the basin's population is young, rural and characterized by large disparities. 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 half of the population is less than 15 years old. Though urbanization is increasing, 70 percent of the population still lives in rural areas, and rural populations are expected to remain high for several decades. Less than a quarter have access to electricity. Food security and social well-being depend mostly on unpredictable and extreme rainfall patterns, particularly in the Sahel part of the Basin, a reality that is further intensified by climate change. The challenges facing the basin, including food security, rural poverty and climate change, are acute. The vulnerability of the basin's population further exacerbated by political instability, notably recent conflicts in Mali and other parts of the Sahel, and sub-regional security threats remain.

Sectoral and Institutional Context

The basin's tremendous potential for infrastructure development is significantly under-tapped. Enhanced water regulation, storage and usage are critical to reduce the vulnerability of the region's economy to extreme hydrological variability (estimated to cost up to 1-2 percent of GDP). At present, only around 20 percent of the 2.5 million ha of potentially irrigated land is currently developed. Less than a third of the 6,000 MW hydropower potential (one of the cheapest and cleanest sources of power in the basin) is being harnessed. Enhanced flow regulation (particularly in dry season) is also important to enhance security of urban water supplies, navigation potential and ecosystems regeneration.

Since 1980, nine riparian countries in the Niger Basin have come together under the auspices of the Niger Basin Authority (NBA) to collectively endorse the NBA's \$8 billion, 20-year Sustainable Development Action Plan (2007) which encompasses a broad mix of large-scale transboundary infrastructure investments on the River Niger (namely Fomi dam in Guinea, Kandadji dam in Niger and Taoussa dam in Mali); as well as small scale infrastructure investments in all nine countries; ecosystem protection and institutional capacity building. Of the proposed large scale water storage infrastructure, the Kandadji dam in Niger is the most advanced in terms of preparation, and the only structure currently under construction.

The next logical water-storage infrastructure for development is the Fomi dam in Guinea. Fomi dam's location at the headwaters of the river (and in its least regulated stretch) makes it a crucial part of the basin's investment program and climate adaptation strategy, owing to its high potential upstream storage volume (representing up to 20 percent of the river's total annual flow at Bamako and four times the volume at Kandadji in Niger) which can significantly reduce the basin's vulnerability to hydrological variability. Benefits from this multipurpose transformational project include irrigated agriculture (over 210,000 ha in dry-season irrigation, mostly in downstream Mali's Office du Niger irrigation scheme) and hydropower (90 MW, which would be connected to the West African Power Pool Grid). The project design intends to maintain a minimum environmental flow and guarantee water supply in downstream towns (including Bamako). As the dam design and operating rules are key determinants of the magnitude and share of both potential benefits and impacts within Guinea and downstream Mali, a high degree of both bilateral and regional cooperation around the project is needed. A key aspect of this is ensuring workable mechanisms for sharing benefits (particularly with local communities), and balancing trade-offs on complex issues. This high-risk, high-reward project is seen as a key piece of the regional hydraulic infrastructure in

the basin, and the NBA's investment program.

Established in 1980, the Niger Basin Authority (NBA) is the regional river basin organization with the mandate to promote cooperation among its nine member countries in developing and managing the Basin's resources. Following the 2003 Shared Vision Process for the basin, endorsed by all nine Heads of State, the 2008 Water Charter provides a legal underpinning to the core mandates of the NBA, which include monitoring the conditions of the basin, providing services to key stakeholders (including flow forecasts), providing a neutral analysis of planned water abstractions, and mobilizing high-level expertise for relevant studies and analyses.

The NBA's efforts over the last decade have focused on two types of activities. First, it administered and implemented, together with member countries, project-based activities on the ground (including on erosion control, irrigation, fisheries, embankment protection, agroforestry, etc.) Second, it carried out its core technical, legal and institutional functions by developing frameworks and tools to support sustainable development in the basin, ensuring implementation of IWRM provisions contained in the Water Charter. With the assistance of several partners (including AFD, AfDB, CIDA, GIZ and WB), the NBA made significant progress towards operationalizing its mandate. However, most of these partner-supported activities were based around specific projects and implemented by discrete project implementation agencies. In addition to this project implementation role, the NBA must continue to develop the tools and processes needed to serve as a strong basin authority. It must also take steps towards financial sustainability, and demonstrate its added value to all basin stakeholders, from respective Ministries of Finance to communities living in the basin's outer tributaries.

The Fomi dam investment provides a timely opportunity for the NBA to continue to further develop its increasingly central role in facilitating decisions and building consensus (among member countries, water users, civil society, and other partners) with regard to transboundary hydraulic infrastructure. The establishment by Guinea and Mali of an Inter-ministerial Committee for Implementation of the Multipurpose Fomi Dam, of which the NBA Secretariat is a member, provides a unique opportunity to develop a robust process to make decisions on the key features, operational rules, potential joint ownership and institutional responsibilities of a complex transboundary project. The development of a structured and inclusive decision-making process around Fomi Dam would be a significant achievement that would greatly benefit the population in the basin.

Relationship to CAS

Activities under the proposed project would contribute to the World Bank Group (WBG) twin objectives of reduced poverty and shared prosperity. The project can reduce poverty by improving river basin management and flow forecast systems, which can help mitigate loss of life and property of people vulnerable to flood and drought – often the poorest. By strengthening the regional cooperation around Fomi Dam, the proposed project would also support new livelihood opportunities through irrigation, and lead to an improved understanding of the environmental flows needed for sustaining wetlands (and the poor populations that rely on them). In terms of shared prosperity, the project will contribute to developing the infrastructure and institutions necessary for hydropower and increased electricity production. The broader benefits from enhanced cooperation in the basin will help catalyze benefits beyond the river, including the development of agribusiness growth poles, enhancing regional trade (e.g. West Africa Power Pool) and enhancing prosperity and security in the basin.

The project and the overall Niger Basin program are fully consistent with the Bank's Regional Integration Assistance Strategy for Sub-Saharan Africa (RIAS) and the Africa Region strategy, which recognize regional approaches as a means for increasing opportunities and realizing economies of scale. In particular, the project supports RIAS pillars on regional infrastructure regional public goods, and the cross-cutting aspect on strengthening regional strategic planning and alignment with national development plans. The proposed project can also be a vehicle for furthering transformative, strategic engagement in the Sahel region (which includes Burkina Faso, Chad, Mali, Niger and northern Nigeria). It forms an important part of the World Bank's strategic engagement under the Sahel Initiative, a World Bank Group (WBG) regional approach for addressing vulnerability and development in selected Sahel countries consisting of Burkina Faso, Mali, Mauritania, Niger and Chad that was endorsed in August 2013.

The proposed program will be closely coordinated with the World Bank's wider program in the Niger basin, including the regional IDA-funded program, the Water Resources Development and Sustainable Ecosystems Management Program (WRD-SEM APL), whose first phase (US\$ 186 million) is financing small and large-scale infrastructure improvements in five basin countries on the river's main stem, and whose second phase (US\$ 255 million, including US\$ 55 million additional financing approved in May 2014) is dedicated to the Kandadji program in Niger, including financing of the hydropower plant, irrigation and local development activities. The Bank also engages with the NBA on a broader dialogue, alongside three other active partners, (AFD, Canada and GIZ), and on institutional capacity building under the wider IDA program (on the legal framework, Water Charter, Technical Permanent Committee, information systems, and national coordination).

The proposed Niger River Basin Program is fully aligned with CIWA's objective to strengthen cooperative management and development of international waters in Sub-Saharan Africa to facilitate sustainable climate resilient growth. The proposed program will support the NBA in advancing on a number of critical fronts which cut across key CIWA results areas. 1. In particular, it is designed to inform more than US\$1.3 billion in investments, including the environmental and social activities associated with Fomi dam (~US\$1 billion), the part B of the second phase of the WRD-SEM program (~US\$100 million), and the proposed Sahel Disaster Resilience Project (~US \$200 million). Potential beneficiaries of these investments are very significant, with at least 2 million people estimated to benefit from Fomi Dam, and an additional 1.5 million direct (3 million indirect) beneficiaries estimated to benefit from the third phase of the WRD-SEM program.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The proposed development objective is to enhance NBA's systems and tools for facilitating improved water resources management and development in the Niger River Basin.

Key Results (From PCN)

The proposed PDO Level Results Indicators would measure overall progress of the proposed project, and are the same as CIWA's core program indicators. The proposed PDO level results indicators are:

- a. Financing Mobilized (US\$). This core indicator will capture the value of potential investments

influenced under this project.

b. Project beneficiaries (number) of which female (percentage). This core indicator will capture potential direct beneficiaries of the project.

The proposed intermediate level results indicators are:

- i. New mechanism for sustainable financing of NBA's core functions developed and approved by member states
- ii. Road map and decision-making process for Fomi Dam project designed and approved by NBA member states
- iii. Framework for sound design, financing, benefit-sharing and management of Fomi endorsed by relevant riparians under auspices of the NBA.

The CIWA development objective is to strengthen cooperative management and development of international waters in sub-Saharan Africa to aide sustainable climate resilient growth. The project is aligned with this objective as components seek to expand and strengthen the cooperative space of the Niger basin through strengthening the institution established to manage its resources.

III. Preliminary Description

Concept Description

This technical assistance will support cooperative water resources management and development in the Niger River Basin, and be anchored to the Fomi multipurpose project, a priority transboundary project that would unlock significant benefits relating to climate change resilience, irrigation, hydropower and environmental flows. The development objective is to enhance Niger Basin Authority's (NBA) capacity, systems and tools for facilitating improved water resources management and development in the Niger River Basin. The NBA is also the implementing agency.

The project will consist of two main components:

Component 1: Strengthening the Niger Basin Authority for Sustainably Delivering its Core Mandate

Component 1 will support the institutional and financial strengthening of the NBA. This will include activities in two broad areas discussed below.

(1) Firstly, the component will support further analysis and operationalization of selected financing mechanisms for the NBA. Mechanisms to develop a sustainable income stream for the NBA were identified in previous studies, most notably, the 2010 Strategic Study for the Autonomous and Sustainable Financing of the NBA Activities. The study explored a number of potential funding sources, including community levies (sub-regional sources such as ECOWAS), remuneration for ownership of specific infrastructure, payments relating to services provided to end users ("user pays" or "polluter pays"), and sale of data-related services by the NBA. This activity will focus on how to practically and sustainably implement specific measures from this study. Two mechanisms of particular interest include a hydropower levee (whereby the NBA would charge a fee per unit of hydropower generated), and a levee on navigation (whereby the NBA would charge a fee per person per kilometer for passengers, or per weight per kilometer for goods). This component will support operationalization of these mechanisms for sustainable financing of the NBA, including addressing the solvency of potential users, legal issues around what types of contributions the NBA can and

cannot collect as an international organization, practicality of how contributions would be collected and distributed, and what agreement and instruments would be needed to operationalize these mechanisms.

(2) Secondly, the component will support the operationalization of the basin's Water Charter, as well as the implementation of recommendations from the forthcoming NBA operational audit (to be launched summer 2014). These activities will focus on unlocking key provisions of the Water Charter that have not yet been operationalized or fully implemented. Specific areas of focus could include (i) developing procedures for riparian notifications for projects that may have significant transboundary impacts, such as large-scale irrigation projects, or a dam resulting in transboundary resettlement, (ii) operationalizing the principle of sharing costs and benefits associated with structuring works (iii) developing procedures for the collection and sharing of national hydrological data in a timely, autonomous and sustainable manner, such that the water information and decision support systems that have been developed over the past few years can be employed for the provisions of services (e.g. flow forecasts); and (iv) developing linkages between new NBA revenue streams (refer first activity above) and O&M of WRM information systems. More broadly, activities related to the NBA hydrological and environmental observatories, including those focusing on water resources knowledge and information management could also be supported.

Component 2: Enhancing Regional Cooperation and Benefit Sharing around Fomi multipurpose project

Component 2 will support the delicate and challenging process of consensus building around Fomi multipurpose project and establish a road map for the development of this complex project to facilitate informed decision-making by multiple stakeholders. This activity will build on the findings from the technical feasibility study (financed under a different project (WRD-SEM APL 1)), and the recent cumulative environmental and social impact assessments, by mapping out and articulating key decision-points around dam design trade-offs, benefit sharing, financing and management options; and supporting targeted analytical activities, as needed. These activities are expected to support an exemplary preparation process that takes into account aspects of a large infrastructure project which are too often overlooked or postponed and will bring interested development partners and potential financiers to the table early on in the process, ultimately contributing to the preparation and implementation of the Fomi multipurpose project.

(1) Firstly, this component will support the development of a clear road map and decision-making process for the Fomi multipurpose project investment, so as to facilitate the preparation of the project in a way that is transparent, efficient, and consistent with international best practice. This process would be facilitated by a neutral firm, hired by NBA, that would bring both technical and institutional (i.e. facilitating negotiations) expertise and help formulate, articulate and facilitate discussions around the key decision points during the project preparation process. Establishing the right process will allow Guinea, Mali, and other riparians to make informed decisions on complex matters within the context of optimizing benefits regionally. This firm would facilitate discussions around a decision tree for the investment, including the review of technical findings from existing and on-going assessments, their translation into user-friendly materials (including development of visual, interactive GIS tools and other models), and their presentation to the NBA and its constituents in a transparent manner to enable informed decision-making with respect to the Fomi multipurpose project. This facilitation and capacity building work would be associated with an extensive communications campaign to support the NBA to articulate the benefits from the regional

cooperation around Fomi to a range of beneficiaries (from Finance Ministers down to local communities). It would take into account the work of the Guinea Coordination Unit of Users of the Niger Basin in supporting information and future benefit sharing with communities. In this context, the capacity building and coaching of the NBA and, possibly the newly established Inter-ministerial Committee for the Development of the Multipurpose Fomi multipurpose project will be an important factor for the success of this process, including in strengthening the NBA's legitimacy. Embedded technical assistance may be considered.

(2) Secondly, this component will finance complementary analytical work addressing downstream impacts and benefit and cost sharing arrangements. While the updated feasibility study for Fomi multipurpose project will be financed under the World Bank's WRD-SEM APL 1, additional analysis will be required to help decision-makers optimize the potential benefits and minimize any risks. This component will fund targeted follow-up analysis building on the 2013 Climate Risk Assessment and the 2007-2009 Cumulative Environmental and Social Impact Assessment for Fomi, to ensure that the findings of these studies are factored in the decision making process. Specific attention will be given to vulnerable hot-spots, such as the Inland Niger Delta, which are likely to necessitate a deep understanding of the complex interactions between changing flow patterns, ecosystems and ecosystem services, and traditional livelihoods. In particular, this component will support an analysis of mechanisms for transferring benefits at local, national and sub-basin level, and trade-offs in this regard. This dimension is particularly acute for three groups of stakeholders: (i) affected people in the Fomi multipurpose project area, (ii) farmers and other stakeholders in the Office du Niger Zone (as main beneficiaries of the regulation allowed by Fomi), and (iii) the people living in the Inner Niger Delta and other smaller wetlands downstream Fomi. Gender aspects will be featured strongly, in terms of ensuring women and vulnerable groups are not marginalized (e.g. from receiving in-kind benefits and compensation). This analysis is expected to illustrate the social, environmental, economic and financial benefits and costs of cooperation in the Niger River Basin. These activities would build on the consensus-based Cotonou-Process initiated by the NBA in 2009 and develop benefit-sharing mechanism for and from the macro- down to the local-level.

(3) Thirdly, support will be provided to review and propose institutional and legal options for joint infrastructure financing and ownership of Fomi, clarifying the roles and legal status of the various entities involved (existing or to be created). This would include studies of adapted public-private partnerships models building on the generic study done by the NBA and on the experience of other dams in West Africa (e.g. Manantali in the Senegal River Basin). Support will be provided to basin stakeholders to mobilize financing for both project preparation and implementation, including through a series of investor conferences.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04		x	
Forests OP/BP 4.36		x	
Pest Management OP 4.09		x	
Physical Cultural Resources OP/BP 4.11		x	
Indigenous Peoples OP/BP 4.10		x	

Involuntary Resettlement OP/BP 4.12		x	
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50		x	
Projects in Disputed Areas OP/BP 7.60		x	

V. Financing (in USD Million)

Total Project Cost:	7.50	Total Bank Financing:	0.00
Financing Gap:	0.00		
Financing Source			Amount
Borrower			0.00
Cooperation in International Waters in Africa			7.50
Total			7.50

VI. Contact point

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