

**PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE**

Report No.: PIDC264

Project Name	First Part of the Second Phase of the Niger Basin Water Resources Development and Sustainable Ecosystems Management Program - APL 2A (P130174)
Region	AFRICA
Country	Africa
Sector(s)	Large Hydropower (25%), General water, sanitation and flood protection sector (25%), Irrigation and drainage (25%), General agriculture, fishing and forestry sector (25%)
Lending Instrument	Adaptable Program Loan
Project ID	P130174
Borrower(s)	The Republic of Niger, The Niger Basin Authority
Implementing Agency	Haut Commissariat à l'Aménagement de la Vallée du Niger, Haut Commissariat à l'Aménagement de la Vallée du Niger, Haut Commissariat à l'Aménagement de la Vallée du Niger
Environmental Category	A-Full Assessment
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Concept Review Decision	

I. Introduction and Context

Country Context

1. The Niger River provides the economic mainstay for its nine riparian countries – Benin, Burkina Faso, Cameroon, Chad, Cote d'Ivoire, Guinea, Mali, Niger and Nigeria. It is the continent's third longest river (4,200 km) and the Niger Basin covers a surface area of nearly 1.5 million km². The Basin's tremendous potential for development (such as hydropower, irrigation, navigation) is significantly under-tapped, which limits economic growth and the improvement of livelihoods in the Basin. Seven of the nine Basin countries are among the 20 poorest countries in the world. About 70 percent of the Basin population lives in rural areas where food security and social well-being are directly dependent on the river and existing water infrastructure. This population is highly vulnerable to currently high climate/water variability, which will be exacerbated by the effects of climate change.

2. The key water sector challenges in the Niger Basin include the need to: (i) improve resilience to climate variability and change; (ii) reduce environment degradation; and (iii) improve water use efficiency in the Basin through water management investments. Improving resilience to climate variability and change is critical because the central part of the Basin is located in a challenging Sahelian region where weather shocks (floods and droughts) are common: - most of the Basin countries have faced water and food crises in past decades. Climate change is expected to increase vulnerability; hence, preparedness, planning and infrastructure investment are key to improve resilience. There is an urgent need to reduce environmental degradation as the rate of deforestation and erosion have been high throughout the Basin and have reduced the capacity of the catchment to act as a natural buffer against weather shocks. High rates of deforestation are due to the increasing needs for energy and limited access to electricity, which has compelled the population to use wood and charcoal for domestic purposes. Improving water use efficiency through water management investment needs to be accelerated as the population (and water use) is increasing, especially in the Sahelian region of the Basin. The need for more reliable access to water resources calls for investments to improve storage and use.

3. The Niger Basin Authority (NBA) is the regional river basin organization that has the institutional mandate to promote cooperation among the nine member countries in developing and managing the Basin's water resources. The NBA emerged from the defunct Niger River Commission (NRC) in 1980 with a strategic mandate to promote cooperation between the member countries, to jointly develop the Basin's water resources and to harmonize national development policies. Despite a revised convention and several attempts to overcome weak institutional, financial, technical and human capacity little progress was made until the late nineties when the Heads of States of the nine countries of Niger Basin decided to revitalize the cooperation framework of the Niger Basin. This revitalization process, supported by the Bank jointly with other development partners, started in 2002 and was called "the Shared Vision Process".

Country Context - Niger

4. Niger is a large, landlocked, mostly desert country with an area of 1.27 million square kilometers and a population of about 16 million. Niger ranks 186th out of 187 countries on UNDP's Human Development Index and its Gross Domestic Product (GDP) per capita (in Parity Purchasing Power terms) was US\$720 in 2010. The Niger River is Niger's only reliable source of water; both

its people and its principal urban areas are concentrated along the river. Niger's population is growing by 3.3 percent annually with 47 percent of its population under the age of 15. Although Niger's GDP is one of the lowest in the world, the country has experienced improvements in both economic and social indicators. Despite periodic setbacks due to droughts, locust invasions, and the avian flu, growth has slowly been gathering momentum. Average per capita GDP growth has been positive since 2000, marking an encouraging shift from falling per capita GDP during the 1990s. Donor support under debt relief initiatives has also contributed to improved performance.

5. Niger has limited natural and human resources, and constantly battles drought. Only about 12 percent of its land is arable. Its economy is dominated by agriculture (the primary sector), which contributed 47 percent of GDP at factor cost in 2009. Agriculture accounts for about 60 percent of all economic activity and about 80 percent of Niger's population derives its livelihood from agriculture and livestock.

6. Niger's economy is currently under threat from three principal external shocks: insufficient rainfall that has often led to a food crisis; the Libyan crisis; and the European debt crisis. Agriculture production depends heavily on rainfall patterns and frequently recurring droughts result in high volatility of agricultural production. The low rainfall in 2011 resulted in a poor harvest and is expected to reduce GDP growth to 3.8 percent. Niger returned to political stability in 2011 through a democratically elected regime after 13 months under the rule of a military government. To address recurrent food shortfalls, the new Government of Niger (GoN) is implementing an ambitious program that gives priority to food security and human capital development for job creation. The Libyan crisis is also contributing to heightened levels of insecurity due to the proliferation of arms in the sub-region, further exacerbated by existing threats from Al Qaeda in the Islamic Maghreb (AQIM), criminal activities such as an expanding drug trade through the Sahara, and recurrent insurgencies by rebel groups in the north of the country. Since the outbreak of the Libyan crisis, between 115,000 to 247,000 seasonal and permanent migrants have returned to Niger, adding to returning migrants from Nigeria and Cote d'Ivoire due to the political instability in these countries. Finally, the EU and France are among Niger's principal donors, providing about 33 percent of annual development assistance. The current financial crisis in the developed world, and especially in Europe significantly dampen the outlook for significant aid increases to Niger. By diverting resources to crisis management, these three external shocks have significant implications for Niger's long-term development.

7. Since 1976, the Government has conducted studies to develop a program to improve water security in Niger, as a way of addressing water scarcity and recurrent droughts. These studies have demonstrated that development of a dam and storage along the Niger River is an essential feature of the program and that the best among alternative sites with sufficient storage on the Niger River (the only reliable surface water source in the country) is the Kandadji site. Based on this conclusion, the Government of Niger developed and adopted the Kandadji Hydropower and Local Development Program (hereinafter referred to as the Kandadji Program) in 2002, to increase the country's resilience to low rainfall (droughts) and reduce dependency on imported electricity for its energy needs. The Kandadji Program includes the construction of the Kandadji dam and reservoir (the dam is a mixed earth/concrete structure with a reservoir storage capacity of 1.59 billion cubic meters), and associated development projects and will be built on the main Niger River in Niger. The main objective of Kandadji Program is to alleviate poverty in the part of the Niger Basin in Niger. The GoN established, in 2002, the High Commission for the Development of the Niger Valley (HCDNV) with the mandate to implement the Kandadji Program. The Kandadji site is located about 61 km downstream of the border with Mali, 187 km upstream of Niamey (capital city of Niger) and 489 km upstream of the border with Nigeria.

Sectoral and Institutional Context

8. Increased and more reliable access to water for agriculture, livelihoods, health and development in the Niger Basin is one of the pillars of the poverty reduction strategy in this extremely poor region. Thus, management and development of the Niger River, under the leadership of the Niger Basin Authority (NBA), is vital for the nine riparian countries of the Niger Basin.

9. Between 2002 and 2008, the Bank, jointly with other development partners, at the request of the riparian countries, supported the implementation of the "Shared Vision Process" (SVP) by financing the institutional capacity building of the NBA. This support was provided through a regional GEF-funded Project and Trust funds (IDF and BNWPP). The SVP resulted in a comprehensive vision negotiated among the riparian countries and key stakeholders to develop the water resources of the Basin in a coordinated way. The SVP was meant to foster understanding and cooperation among the riparian countries and key stakeholders to generate benefits, based on reliable data and instruments. The SVP was accelerated in April 2004 when the riparian countries signed the Paris declaration on the "Principles of management and good governance for a sustainable and shared development of the Niger River Basin" and the Technical and Financial Partners signed the "Niger Basin Authority Partners Cooperation Framework". In May 2005, at the extraordinary session of the NBA Council of Ministers (CoM) held in Abuja, the riparian countries adopted the statement of the Shared Vision (SV) as follows: "The River Niger Basin, a common space of sustainable development through an integrated management of water resources and related eco-systems, for the enhancement of the living conditions and prosperity of the population by 2025."

10. The SVP included two key steps: (i) a strategic assessment of basin development opportunities and constraints, and (ii) development of a sustainable development action plan. In addition, the NBA Executive Secretariat underwent institutional reform including the establishment of a more efficient organizational structure and consultative organs for improved decision making on water development and management.

11. In 2008, the SVP was successfully completed with the approval by the Heads of State and Government of the Niger Basin of the (i) the Strategic Development Action Plan (SDAP); (ii) a 20-year investment plan (IP); and (iii) the Water Charter.

12. The SDAP is based on three priority areas for sustainable development: (i) the development of socio-economic infrastructure; (ii) the preservation of the basin's ecosystems; and (iii) capacity-building and stakeholder participation. Preparation of the SDAP utilized a hydro-economic model (including the assessment of cumulative impacts) to define and analyze nine development scenarios for the Niger Basin. The development scenario endorsed by the Niger Basin Council of Ministers in July 2007 included the construction of three new dams, one of which is the Kandadji Dam in Niger, as well as: Fomi (in Guinea) and Taoussa (in Mali). The program also includes the rehabilitation of three existing dams: Kainji and Jebba (in Nigeria), and Lagdo (in Cameroon).

13. The 20-year IP represents total investments of about US\$8 billion and is divided in four periods, each of which is called a "five-year-priority-plan". The cumulative impacts of SDAP/IP infrastructure development (including the three envisaged dams) and associated development activities (such as irrigation development) were studied in detail and endorsed by the Heads of State and Government of the riparian countries. While these development programs were originally planned at the national level (for example the Kandadji Program), the SVP analysis demonstrated they would better fit into a coordinated regional framework and thereby maximize benefits in terms of irrigated agriculture, hydropower and navigation while minimizing negative cumulative or individual impacts. In June 2008, the NBA held a roundtable, which resulted in development partners pledging US\$1.4 billion to support the first five-year priority plan of the IP. Out of the funds originally pledged by partners, agreements have already been signed for US \$0.68 billion and other agreements of up to US\$0.36 billion are in process of being signed. Hence, total commitments for implementing the IP are currently around US\$1.04 billion.

14. The Water Charter aims to encourage cooperation based on solidarity and reciprocity for a sustainable, equitable, and coordinated use of the Niger Basin. It provides mechanisms for notification of proposed developments by the riparians and an institutional framework for coordination and resolution of issues. The Charter, which was approved in 2008, has been effective since July 2010, and is currently being effectively implemented by the NBA and the riparian countries.

15. The World Bank already supports the Niger Basin through a regional IDA-funded Adaptable Program Loan (APL): the Water Resources Development and Sustainable Ecosystems Management Program (WRD-SEM APL). The APL provides 'horizontal' support across the region to help the NBA consolidate its institutional and legal frameworks and 'vertical' support to countries to improve water resources development and management activities at local and national levels. It was designed as a two-phased, twelve year program, and approved by the Board in July 2007. The first phase of the Program (WRD-SEM APL 1) is supporting, among other things, complementary technical assistance studies for the Kandadji Program. The second phase of the APL will finance, among other things, the actual infrastructure investments of the Kandadji Program in parallel with other donors.

16. The proposed Project (i.e., the WRD-SEM APL 2A) is part of the Bank's engagement in financing actual infrastructure investment in the Kandadji Program. The Kandadji Program is designed to be implemented in three phases and the proposed Project contributes to the financing of Phase I and Phase II.

17. The three phases of the Kandadji Program are as follows:

(1) Phase I of the Program, which started in 2009 and is expected to be completed around 2016, being funded by the Government and other donors, comprises the Kandadji dam (and its reservoir), the hydro-mechanical equipment for the 18 gates, the economic community and local development, and the environmental and social mitigation measures for resettled people. The resettlement will be carried out in two separate waves, and the first wave of 5,410 people in or near the construction site is expected to be displaced in this phase of the program. This phase will also include the development of 2,000 hectares of irrigation mainly to support the livelihoods of the first wave of resettled people. The local and economic development in this first wave will focus on the resettled communities and host communities.

(2) Phase II of the Program comprises construction of the hydropower plant, transmission lines, road, irrigated agricultural development, and expanded local and community development in the reservoir area and downstream. The second wave of about 32,000 people is expected to be displaced and resettled during this phase, shortly before the reservoir is filled (currently planned during 2016). For an optimal sequencing of the different technical and construction packages during the implementation of the Program, it is critical that Phase II is initiated in parallel with Phase I. Based on the technical planning for the civil works of the dam, the contract of the power plant needs to be signed no later than 18 months after the start of the civil works on the dam. During Phase II there will be a stronger focus on economic community and local development, including development of at least 4,000 hectare of irrigated agriculture with a view to piloting an agro-business growth pole, and scaling up local development beyond affected communities for growth pole development in the region around the Kandadji infrastructure.

(3) Phase III of the Program focuses on the development of about 40,000 hectares of irrigation agriculture and the scaling up of economic community and local development of the region (including fishery, livestock, trade and agro-business, increase of productivity of rain-fed agriculture, etc). Phase III is likely to start at the end of Phase I and Phase II, or shortly after the filling of the reservoir (currently planned for 2016).

18. Since 2009, the implementation of the Kandadji Program has progressed rapidly, and is currently being financed with support from nine development partners in addition to the national budget of the Government of Niger. These development partners are: African Development Bank, Islamic Development Bank, Abu Dhabi Fund, Arab Bank for Economic Development in Africa, ECOWAS Bank for Investment and Development, Kuwait Fund for Arab Economic Development, OPEC Fund, Saudi Fund, and West African Development Bank.

19. Major milestones of the Phase I of the Kandadji Program achieved so far include: (i) signing of the contract for the construction of the Kandadji dam in September 2010, with the works expected to start in 2012; (ii) initiation of the procurement process for the gates and hydro-mechanical works; (iii) signing of the contract for the development of 2,000 hectares to compensate the first wave of the resettled people, with the works expected to start in 2012; and (iv) completion of and disclosure of an environmental and social impact assessment (ESIA) in 2006 (funded by the AfDB); which included a resettlement action plan (RAP) and a local development plan.

20. Progress on Phase II of the Kandadji Program includes (i) the completion the feasibility study of the hydropower plant, with the procurement process expected to begin shortly; (ii) the completion of the draft ToRs for the feasibility study for the development of an additional 4,000 hectares (including environmental and social studies) downstream the Kandadji dam, and commencement of the procurement process; and (iii) significant progress in the preparation of the feasibility study and ESIA and RAP for the transmission line (to be completed in 2012).

Relationship to CAS

21. As noted above, in April 2004, NBA's Heads of State met in Paris and agreed on a Shared Vision and requested the Bank to play a key role in the Niger Basin cooperation and development process. This request recognized the Bank's ability to: (i) leverage regional integration activities through the Africa Region Integration Assistance Strategy; (ii) build on experiences with complex water resources management projects and regional River Basin Organizations; and (iii) mainstream its leadership and convening power for partnership with other donors. In addition, given the Bank's 10-year long standing relationship with the NBA, it was uniquely positioned to move the regional integration process forward.

22. The proposed Project is consistent with the Regional Integration Assistance Strategy (RIAS), and the Africa Region strategy. The RIAS and the Africa strategy recognize regional approaches as a means for increasing opportunities and for realizing economies of scale. In particular, the proposed Project supports pillar one of the RIAS on regional infrastructure, pillar three on coordinated intervention to provide regional public goods, and the cross cutting theme on strengthening regional strategic planning and alignment with national development plans. The NBA and riparian countries have in the SDAP and IP identified priority projects that promote economic growth, improved food security, and regional integration, all of which are consistent with the Poverty Reduction Strategy Paper (PRSP) goals of the member countries.

23. In addition, the Government of Niger places a high priority on poverty reduction, through policies aimed at improving food security, raising the income of rural producers, and increasing food production security and diversification. The 2008-2012 Poverty Reduction and Accelerated Development Strategy (SDRP) is aligned with the Rural Development Strategy (SDR), in which the Kandadji Program is one of the pillars given its potential contribution to economic development and poverty reduction to the country. The Kandadji Program, to which the proposed Project contributes significantly, also supports the implementation of the Government 3N initiative ("Nigeriens feed Nigeriens"). In line with the 3N initiative, its objectives are to alleviate poverty in Niger by managing the flow of the Niger River; to restore degraded riverine ecosystems and sustain a minimum dry season flow in the Niger River; to ensure reliable municipal water supply for the capital Niamey; to enhance the development of agriculture for food security and improved rural incomes; to improve and expand energy supply and security; and to improve domestic and livestock water supply. The Kandadji Program is also consistent with the 2008-2011 Country Assistance Strategy (CAS) priorities of Niger and other interventions of the Bank, which focus on increasing growth. Indeed, the Kandadji Program aims to provide a sustainable supply of water (especially in the dry season), energy and diminished drought risk that is expected to facilitate increased private and public investment and economic growth and poverty reduction in the Niger River Basin in Niger. In addition, the identified interventions in the proposed Project are closely connected with the West Africa Power Pool activities, thus providing opportunities to consolidate synergies between environment-water-infrastructure-energy and adaptation to climate variability and change.

II. Proposed Development Objective(s)

Proposed Development Objective(s)

24. Approved by the Board in July 2007, the objective of the IDA-funded Program (WRD-SEM APL), is to "enhance regional coordination, development and the sustainability of water resources management in the Niger River Basin". This objective remains the same for the entire Program. The development objective of the proposed Project (WRD-SEM APL 2A) is to "increase access to water for agriculture development and energy generation in selected areas."

Key Results

25. The expected outcomes of proposed Project include: (i) increased average annual energy production; (ii) reduced number of days with minimum flow below 80 m³/s in the border between Niger and Nigeria; (iii) number of farmers benefitting from irrigated agriculture (new and rehabilitation); and (iv) direct project beneficiaries (number), of which female (percentage).

III. Preliminary Description

Concept Description

The IDA-funded Program (WRD-SEM APL), the Phases, and need for restructuring

27. The IDA-funded Program (WRD-SEM APL) provides support to improve water resources development at local and

national levels in the Niger Basin. The 12-year APL is being implemented in two successive phases, with the first phase focusing on building the institutional structure to provide the foundation for sustainable management and operation of the infrastructure that would be developed in subsequent phases. The overall program cost was estimated at US\$747.2 million, for which IDA contribution over the two phases would be US\$500 million. It was agreed that the first phase (WRD-SEM APL 1) would focus on the five countries situated on the Niger River's main stem (Benin, Guinea, Mali, Niger, and Nigeria) for a total of US\$186 million. The second phase (i.e., WRD-SEM APL 2) would include the remaining four countries (Burkina Faso, Cameroon, Chad and Côte d'Ivoire) and continue to contribute to implementing the Sustainable Development Action Plan (SDAP) in all nine riparian countries.

28. The first phase of the APL was to be implemented from 2007 to 2013, but its closing date has been extended to December 2014. The WRD-SEM APL 1 includes three components: (i) strengthening the NBA in water resources management, (ii) supporting key complementary studies for large water infrastructure (in Guinea, Mali, and Niger) and rehabilitation of Kainji and Jebba dam in Nigeria, and (iii) implementing small scale activities (in Benin, Guinea, Mali, and Niger) to improve water management including the rehabilitation of small infrastructure. The second Phase of the APL (WRD-SEM APL 2), was expected to start around 2013, and was planned to continue to strengthen the NBA, implement small scale activities (in all the nine countries of the Niger Basin), and invest in the large water infrastructure identified in the SDAP (such as the Kandadji Program).

29. Significant progress has been achieved in the implementation of WRD-SEM APL 1 since its inception. Nonetheless, a restructuring of the WRD-SEM APL 1 will be carried out to reflect changes in the Program since it was prepared (Annex III briefly presents the scope of the restructuring of the WRD-SEM APL1), and will be processed separately but submitted to the Board along with the proposed Project. The implementation of the activities is on track to be completed by the current WRD-SEM APL 1 closing date of December 2014 and can be summarized as follows:

(a) Under component 1, there has been significant progress in enacting the required legislation and institutional structure that is essential for regional cooperation. The Water Charter has been effective since July 2010 and the first Annex of the Charter was approved in September 2011, while the second Annex on coordinated management of infrastructure is currently being drafted, to be approved by September 2012). Two of the key committees (the permanent technical committee and the Panel of Experts) have already been established and the Panels of Expert for dam safety and for environment and social aspects have already initiated the review of the Kandadji Program. The progress on the Water Charter in basin with multiple riparians such as the Niger Basin represents a significant success in regional cooperation.

(b) Under component 2, in Nigeria, the contract for rehabilitation of the Kainji dam (which represents 44 percent of the total cost of the project) was signed in June 2011, and works are expected to be completed by December 2014. The preparatory studies for the Zungeru dam funded by the Federal Republic of Nigeria and are completed. Under this component, the preparation of the Kandadji complementary studies to update safeguard documents prepared earlier, has progressed more rapidly than expected and is nearly completed. In Guinea, due to country circumstances, the complementary studies for Fomi dam were delayed, but are now expected to be finalized by December 2014. In Mali, the update of the preparatory studies for Taoussa is no longer relevant, and this sub-component will not proceed as originally planned.

(c) Under component 3, all activities in Niger are making good progress while in Mali and Benin, it is expected that civil works will start in 2012. In Guinea, because of the country political circumstances, actual work on the ground is expected to only start in early 2013. It is expected that all the activities will be completed by WRD-SEM APL 1 closing date (December 2014).

30. Because the complementary studies of the Kandadji Program under the first phase (WRD-SEM APL1) were completed much earlier than expected, and preparatory activities for the implementation of the phase I and phase II of the Kandadji Program have also been completed, the construction of the dam, and the related resettlement of the first wave of project affected people, is ready to start ahead of schedule.

31. Since the activities related to the Kandjadi dam are now starting earlier than originally anticipated, there is a need to fast-track the preparation of WRD-SEM APL 2 in order to provide the funding needed to support the Kandadji program. However, since the remaining originally planned components of WRD-SEM APL 2 will only be ready according to the original implementation schedule, i.e., in 2014, the entire second phase needs to be restructured by separating the Kandadji program from the remaining activities. Thus, the proposed restructuring would involve splitting the WRD-SEM APL 2 into two separate parts, with the first part to include support to the Kandadji dam to start immediately, while the second part would support the remaining components and would start later. The later part would now include the following as components: (a) strengthening the NBA and executing agencies, (b) investment in large water infrastructure, for which preparatory studies would have been satisfactorily completed under WRD-SEM APL1; and (c) implementing small scale activities (in all the nine countries of the Niger Basin) for sustainable management of selected degraded ecosystems to manage "public goods" while providing incentives to communities through income generation activities.

32. In addition, following the mid-term review in 2011, it was recommended that the entire APL, including the first phase also be restructured to reflect: (a) changes to the first phase development objectives and results framework; (ii) cancellation of some components that are no longer required; (iii) changes in the implementation arrangements in Niger; (iv) revision of the remaining unmet triggers to align them with the proposed phasing of APL2; and (v) trigger an additional safeguard for Pest Management for the entire program. Therefore, the overall restructuring of WRD-SEM APL will consist of the following:

(a) splitting WRD-SEM APL 2 into two horizontal APLs, as WRD-SEM APL 2A and WRD-SEM APL 2B. Therefore, WRD-SEM APL 2A will consist of activities related to phase I and phase II of the Kandadji Program (i.e. construction of the dam, the power plant, irrigation, technical assistance and local development). WRD-SEM APL 2B will consist of the remaining activities originally included

in second phase It is expected that WRD-SEM APL 2B will start when the corresponding triggers are satisfied (at the end of CY 2014 or in early CY 2015);

(b) restructuring WRD-SEM APL 1 to incorporate the changes agreed during the mid-term review as discussed above, and adjust the original triggers for the second phase Program (i.e., WRD-SEM APL 2) to align them with the relevant parts of WRD-SEM APL 2 as is now being proposed.

33. As originally designed, the IDA-funded Program has four institutional triggers and one technical trigger, which must be met before moving from Phase 1 to Phase 2. The four institutional triggers are: (i) the adoption of a Niger Basin regional environmental code by riparian countries (achieved); (ii) the finalization of the Niger Basin Water Charter (achieved); (iii) the creation of a Permanent Water Commission (achieved); and (iv) the development and adoption of the legal instruments for the joint management and optimization of large infrastructure, dispute resolution and arbitration enforcement by riparian countries (on-going). The technical trigger is that the Power Holding Company of Nigeria (PHCN) has met the expected output in terms of availability of the rehabilitated units 5, 6, and 12 of Kainji power plant (expected to be achieved by December 2014).

34. The rationale for adjusting the triggers as part of the restructuring is to ensure that they are relevant to the overall program, including aligning the remaining triggers to restructuring proposals for phase 2 activities. For the proposed Project (WRD-SEM APL 2A), only the first three institutional triggers are relevant and have already been met. The last institutional trigger will be required only when the three envisaged dams in the Niger Basin (Kandadji (Niger), Taoussa (Mali), and Fomi (Guinea)) and related infrastructure are operating. The technical trigger relates only to Nigeria and so is not relevant for the proposed Project, i.e. not related to the Kandadji Program.

35. Details of the suggested changes to the triggers for the remainder of the second phase of the IDA-funded Program (WRD-SEM APL 2B).

Description of the proposed Project (WRD-SEM APL 2A)

36. As discussed above, key institutional and planning activities required prior to launching the implementation of the Niger Basin 20-year Investment Program (IP) have progressed satisfactorily and the countries are preparing to move to the construction stage. It is an opportune moment for the Niger Basin Authority (NBA), with its enhanced institutional capacity, to support the countries in implementing the large and complex IP. The proposed Project, which will support physical infrastructure investments of the Kandadji Program is an example of the next generation of high risk-high reward projects in the Niger Basin that are planned under the SDAP and the 20-year NBA investment program. The design of the IDA-funded Program (WRD-SEM APL) as an APL was – and still is – a strategic and relevant approach, providing the flexibility needed to support the Basin countries to coordinate and implement the investments projects emerging from the SDAP and the IP.

37. The Kandadji Program will generate numerous economic benefits. Based on the feasibility study (2001), the Program has an estimated economic internal rate of return of 14.4%, which is high considering the high costs of resettling 38,000 people. Benefits include: (i) increased crop production resulting from the irrigation of 6000 ha in Phases I and II (and ultimately about 45,000 ha when phase III of the Kandadji Program is completed); (ii) reliable water supply for people in the Niger Basin in Niger; (iii) increased availability of water for livestock; (iv) much needed regulation of low river flows (minimum dry season flow of 80 m³/s at the Niger-Nigeria border); (v) opportunities to develop other income generating activities (e.g. fishing, navigation); and (vi) improved reliability of energy through the 130 MW of installed electricity and an average annual energy production of 564.4 GWh. A collateral benefit would be the stimulation of economic and commercial activity, including services in Niger's parts of the Niger Basin where there is currently very limited economic activity.

38. The following components are suggested for the proposed Project (WRD-SEM APL 2A): (i) institutional strengthening; (ii) financing of Kandadji hydropower plant; and (iii) promoting the growth-pole approach through irrigation development (including rehabilitation) and local community development. These components are described below.

39. Component 1 (Estimated cost US\$7 million of which the Bank's contribution is US\$3 million from regional IDA Grant). This component includes support to the NBA including the financing of the NBA project unit responsible for implementing the IDA-funded Program as well as support to implementation of the Water Charter (e.g. key studies such as the strategic plan and update of the organizational audit of NBA).

40. Component 2 (Estimated cost US\$190 million of which the Bank's contribution is US\$90million). Under this component, the AFD, AfDB, and the World Bank would jointly finance the Kandadji hydropower plant The AFD is expected to fund about US\$50 million, and the AfDB about US\$50 million. The feasibility study of the power plant has been completed and the HCDNV has already prepared draft pre-qualification documents as well as draft bidding document and will submit them shortly to AFD, AfDB, and the World Bank for review. The power plant is expected to have a capacity of 130 MW. This component will also include: (i) costs for engineering supervision, (ii) costs for the Niger Basin independent panel of experts for dam safety and for environmental and social aspects, (iii) critical studies on the energy master plan and linkage with the West African Power Pool; and (iv) implementation Support to the national executing agency (expected to be the HCDNV), including financing of personnel to strengthen the implementation of the project. The proposed Project will not finance salaries, fees, honoraria or bonuses for civil servants.

41. Component 3 (estimated cost US\$126 million of which the Bank's contribution is US\$60 million). This component would consist of 3 sub-components and would focus on irrigation development (sub-components 3.1 and 3.2) and local development (sub-component 3.3).

Sub-component 3.1 (estimated cost of US\$10 million of which the Bank's contribution is US\$10 million) would focus on rehabilitation of about 700 ha of irrigated agriculture. The identification of the site to be rehabilitated will be confirmed during appraisal and agreement on the complementary studies to be conducted will be reached;

Sub-component 3.2 (estimated cost of US\$60 million of which the Bank's contribution is US\$35 million) would focus on investment in a pilot agro-business growth pole linked to the development of approximately 1500 to 2000 ha (downstream of the future reservoir) of diversified commercial crops utilizing small scale irrigation (private-public partnerships would be explored). The complementary studies for the development of the pilot agro-business model and, in particular, how to encourage establishment of enterprises/private business upstream and downstream to support them (e.g. capacity building for entrepreneurs) will be confirmed during appraisal. The design of the pilot agro-business will build on lessons learned in Niger and in the region, including Bank-funded irrigation pilot projects in the country and the Bank-funded Bagre Pole Growth Project. Options for establishing private-public partnerships, as well as for creating water user associations will also be explored. The focus of this sub-component is on piloting agro-business in a relatively small area, with a view to scaling up in the future, given that an additional 40,000 ha of irrigation is planned to be developed under the Kandadji Program;

Sub-component 3.3 (estimated cost of US\$56 million of which the Bank's contribution is US\$ 15 million) would focus on local development including: (i) reinforcing capacities of partners organization and communities to plan and implement local development and investment plans, (ii) providing financial support to implement investment programs (primarily collective investments in access to basic services and natural resources management (community driven development-based approach), and (iii) setting up of funds to support local initiatives centered on micro-business ownership for women and youth, including funding innovation competitions for the youth.

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. Tentative financing

Financing Source	Amount
BORROWER/RECIPIENT	10.00
International Development Association (IDA)	153.00
African Development Bank	60.00
FRANCE French Agency for Development	100.00
Total	323.00

VI. Contact point

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Borrower/Client/Recipient

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