

AFRICAN DEVELOPMENT BANK GROUP



MULTINATIONAL

PROGRAMME FOR INTEGRATED DEVELOPMENT AND ADAPTATION TO CLIMATE CHANGE IN THE NIGER BASIN (PIDACC)

APPRAISAL REPORT

AHAI/RDGW

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Translated document

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Currency Equivalents

(July 2018)

UA 1	=	CFAF 791.43
UA 1	=	EUR 1.21
UA 1	=	USD 1.41

Fiscal Year

1 January - 31 December

Weights and Measures

1 metric tonne	=	2 204 pounds
1 kilogramme (kg)	=	2.20 livres
1 metre (m)	=	3.28 feet
1 millimetre (mm)	=	0.03937 inches
1 kilometre (km)	=	0.62 mile
1 hectare (ha)	=	2.471 acres

Abbreviations and Acronyms

AfDB	:	African Development Bank
AfIF	:	Africa Investment Facility of the European Union
AGRHYMET	:	Regional Centre of Agro-Hydro-Meteorology
AWF	:	African Water Facility
BOAD	:	West African Development Bank
CAADP	:	Comprehensive Africa Agriculture Development Programme
CEMAC	:	Central African Economic and Monetary Community
CILSS	:	Interstate Standing Committee for Drought Control in the Sahel
CNCR	:	National Committee on the Rural Code
CSA	:	Food Security Commission
ECOWAP	:	ECOWAS Agricultural Policy
ECOWAS	:	Economic Community of West African States
EDS	:	Population and Health Surveys
ESDP	:	Economic and Social Development Programme
ESIA	:	Environmental and Social Impact Assessment
FAO	:	United Nations Food and Agriculture Organisation
GCF	:	Green Climate Fund
GEF	:	Global Environment Facility
GIZ	:	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GPRSF	:	Growth and Poverty Reduction Strategic Framework
HIMO	:	Labour-based (<i>Haute Intensité de Main d'œuvre</i>)
ICA	:	Infrastructure Consortium for Africa
IFAD	:	International Fund for Agricultural Development
IMF	:	International Monetary Fund
IWRM	:	Integrated Water Resource Management
MDGs	:	Millennium Development Goals
NAIPs	:	National Agricultural Investment Programmes
NBA	:	Niger Basin Authority
NBSCP	:	Niger Basin Silting Control Programme
NEPAD	:	New Partnership for Africa's Development
NGOs	:	Non-Governmental Organisations
OFID	:	OPEC Fund for International Development
ONAHA	:	Irrigation Development Authority
PIP	:	Priority Investment Plan

PNIASA	:	National Programme for Agricultural Investment and Food Security
PRSP	:	Poverty Reduction Strategy Paper
RAIP	:	Regional Agricultural Investment Programmes
RAIPFS	:	Regional Agricultural Investment Programs for Food Security
RBCSP	:	Results-Based Country Strategy Paper
RECA	:	National Network of Chambers of Agriculture
SCF	:	Strategic Climate Fund
SDDCI	:	Sustainable Development and Inclusive Growth Strategy
SESA	:	Strategic Environmental and Social Assessment
UNICEF	:	United Nations Children's Emergency Fund
USAID	:	United States Agency for International Development
WAAPP	:	West Africa Agricultural Productivity Project
WAEMU	:	West African Economic and Monetary Union
WB	:	World Bank
WFP	:	World Food Programme

Project Information Sheet

Client Information

BORROWERS: Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Guinea, Mali, Niger, and Nigeria

DONEES: Benin, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Guinea, Mali, Niger, Nigeria, and NBA

EXECUTING AGENCY: NBA Executive Secretariat and Beneficiary Countries

Financing Plan

ADF-14 Financing in UA million

Source	Instrument	Amount in UA Million				Total ADF
		ADF (BPA)		ADF (OR)		
ADF-14		Grant	Loan	Grant	Loan	
Benin	Grant	3	-	3		6
Burkina Faso	Grant	2	-	-		2
Cameroon	Loan		3		3	6
Côte d'Ivoire	Loan	-	3		2	5
Guinea	Grant/ Loan	-	3	4.5		7.5
Mali	Grant/Loan	-	3	4.5		7.5
Niger	Grant	3	-	4.5		7.5
Nigeria	Loan	-	3		3	6
Chad	Grant	3	-	4.5		7.5
Total		11	12	26		49

Co-Financing by Other Partners

	GEF Grant in USD Million	Green Climate Fund (GCF)		Strategic Climate Fund (SCF)		EU-AfIF PAGODA Grant in EUR Million	Countries in UA Million	Total in UA million
		Grant in USD Million	Loan in USD Million	Grant in USD Million	Loan in USD Million			
Benin		4.7	1			1.29	1.3	12.903
Burkina Faso	2.41	4.9	2			1.34	0.3	11.151
Côte d'Ivoire		4.8	1	2.64	6.36	1.29	2.4	20.272
Cameroon		5.3	1			1.42	0.5	11.856
Guinea		4.65	1			1.33	1.6	14.769
Mali		7.83	1			1.99	1.5	17.667
Niger		6.66	1			1.97	1.6	16.859
Nigeria		10.12	2			2.83	2.7	22.334
Chad		4.29				1.14	1.5	14.282
NBA	9.60	4.55					0.1	9.950
Total	12.01	57.8	10.0	2.64	6.36	14.60	14.5	152.043

Key ADF Financing Information

Guinea and Mali

ADF grant currency	Unit of account
ADF loan currency	Unit of account
Commitment fee	0.50% per annum on non-disbursed amounts
Service fee	0.75% per annum on outstanding amounts
Maturity	40 years
Grace period	10 years

Cameroun, Côte d'Ivoire,

Nigeria

ADF loan currency	Unit of account
Commitment fee	0.50% per annum on non-disbursed amount
Service fee	0.75% per annum on outstanding amount
Maturity	40 years
Grace period	10 years

Chad

ADF grant currency	Unit of Account
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Cameroon, Côte d'Ivoire and

Nigeria

ADF grant currency	Unit of Account
ADF loan currency	Unit of Account
Commitment fee	0.50% per annum on the non-disbursed amount
Service fee	0.75% per annum on the outstanding amount
Interest	1% per annum on the disbursed loan balance
Maturity	30 years
Grace period	5 years

Key GCF Financing Information

GCF grant currency	US dollar
GCF loan currency	US dollar
Commitment fee	0.50% per annum on non-disbursed amounts
Service fee	0.25% per annum on outstanding amounts
Maturity	40 years
Grace period	10 years: for the 8 countries

Key SCF Financing Information

Côte d'Ivoire

SCF grant currency	US dollar
SCF loan currency	US dollar
Commitment fee	0%
Service fee	0.25% per annum on outstanding amounts
Maturity	40 years

Grace period	10 years: for Côte d'Ivoire
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Key GEF and EU-AfIF (PAGODA) Financing Information

GEF grant currency	US dollar
EU PAGODA grant currency	EUR

ERR (baseline scenario)	23.8%
NPV (baseline scenario)	USD 171.66 million

Timeframe – Key Milestones (expected)

Concept Note Approval:	June 2018
Programme Approval:	November 2018
Signature:	January 2019
Effectiveness:	April 2019
Physical Completion:	December 2024
Closing Date:	December 2025

Project Summary

General programme overview: The Niger River, whose basin is shared by nine (9) West and Central African States (Benin, Burkina Faso, Cameroon, Ivory Coast, Guinea, Mali, Niger, Nigeria and Chad), is of paramount importance for residents of the area and the economies of member countries of the Niger Basin Authority (NBA). The growing aridity and the dwindling of water flows observed over several decades, associated locally with land pressure, have highly contributed to the widespread degradation of natural resources, the worsening of water and wind erosion and the silting of the Niger River. These phenomena - amplified year after year by recurrent droughts - have undermined the people's living conditions and the biodiversity of the Basin. Between 2006 and 2011, the Bank financed the Niger Basin Silting Control Programme (NBSCP) in three countries of the Basin (Burkina, Mali and Niger), which carried out pilot operations and enabled the development of a Master Plan for controlling the silting of the Niger River. At the request of the countries, the Bank in 2012 initiated the preparation of the Programme for Integrated Development and Adaptation to Climate Change in the Niger Basin (PIDACC), the overall objective of which is to contribute to improving the resilience of the people and ecosystems of the Niger River Basin through sustainable natural resource management. The programme comprises 9 national projects implemented by the countries and a regional project carried out by the NBA to ensure synergy. It is structured around three components: (i) Building the resilience of ecosystems and natural resources; (ii) Building the people's resilience; and (iii) Ensuring programme coordination and management. The main expected outcomes are: (a) the recovery of 140 000 ha of degraded land; (b) the construction of 209 water infrastructure systems for agro-pastoral and fish farming activities; (c) the implementation of 450 sub-projects for agricultural chain development purposes and 184 youth SMEs; (d) climate change (CC) adaptation capacity building for 1 000 000 households; and (e) the operationalisation of a sustainable financing mechanism for sustainable natural resource management activities. The programme will cost USD 205.188 million and will be implemented over a six-year period (2019-2024). In the 9 countries, the programme will directly benefit 4 million people, 51% of whom are women. The direct beneficiaries also include smallholder farmers and vulnerable groups (women and young people) promoting the sub-projects.

Needs assessment: The residents of the Niger Basin, estimated at 130 million, are highly dependent on natural resources (rain-fed agriculture, livestock farming and fishing - all sectors of which are highly vulnerable to climate change). The PIDACC programme is justified by the need to promote sustainable social development, protect the large water infrastructure in the Basin of the Niger River and its tributaries, and consolidate the successful results of the Niger Basin Silting Control Programme (NBSCP). The programme is based on strategy papers prepared by the Niger Basin Authority (NBA), namely the Silting Control Master Plan (SCMP), the Action Plan for the Sustainable Development of the Niger Basin (PADD), the Climate Investment Plan (CIP), and the Operational Plan 2016-2024. The activities were selected following the feasibility studies completed in 2017 with funding from the African Water Facility (AWF) and the Infrastructure Consortium for Africa (ICA).

Value-added for the African Development Bank: The Bank has capitalised on its long experience in the Sahel, particularly in water mobilisation and control, rural development, sustainable natural resources management and strengthening of the resilience of vulnerable groups. Through the AWF, the Bank has provided assistance to countries to enable them to carry out technical and environmental feasibility studies for the programme in order to identify technical solutions suited to the context of the Basin. PIDACC will adopt an integrated and inclusive approach that highlights the regional dimension of climate, food and nutritional issues. The sector and cross-sector departments and national offices of the Bank collaborated as part of a multidisciplinary and multi-sector team to prepare and evaluate PIDACC. They will continue this collaboration during the implementation phase. The programme is in line with the objectives of the Bank's Ten-Year Strategy (2013-2012)

and will foster the achievement of three of the Bank's High 5s: (i) Feed Africa; (ii) Integrate Africa; and (iii) Improve the quality of life for the people of Africa.

Knowledge Building: The programme's sub-component on community capacity building will develop and disseminate climate change adaptation best practice guides, based on the capitalisation of research and development results and local experiences in the Sahel region. The programme will generate other knowledge products useful to all NBA countries, including: (i) climate risk assessment at the local level; (ii) operationalisation of a regional early warning system on severe floods and low water levels; (iii) strategies for integrating climate data into agro-pastoral management, and (iv) community management of multipurpose infrastructure. The interaction of various actors on climate issues will also provide an excellent platform for sharing knowledge and experience in community capacity building.

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RESULTS-BASED LOGICAL FRAMEWORK

Country and Project Name: Programme for Integrated Development and Climate Change Adaptation in the Niger Basin (PIDACC)						
Project Goal: Contribute to improving the resilience of the people and ecosystems of the Niger River Basin through sustainable natural resource management.						
	Results Chain	Performance Indicators			Means of Verification	
		Indicators	Baseline (2018)	Target (2024)		
Impacts	Ecosystems of the basin are preserved	The Basin's vegetation cover has increased Carbon sequestration has increased	- TBD	10% 7 MM tCO2eq	NBA reports, field surveys, midterm and completion reports, National statistics	Risk: Non-sustainability of the developments Mitigation: Empowerment of communities, municipalities, countries for maintenance purposes.
	Income has increased	Additional income per capita in rural areas	-	(+20%)		
O U T C O M E S	Ecosystems are better managed	Area of land under sustainable management	0	450 000 (30% W)		
	Production has increased	Volume of agricultural water harnessed (in million m ³ /year) Additional crop, fish and meat production (tonnes)	0 0	280 575 000 / 9 000 / 6 000		
	Climate change (CC) adaptation enhanced	Number of producers who have adopted resilient practices Number of jobs created for young people Number of women and young people having access to reclaimed land	0 0 0	1 000 000 (30% W) 100 000 (30% F) 500 000		
Component 1: Build the resilience of ecosystems and natural resources						
O U T P U T S	S/C 1.1 Protection of resources and ecosystems 1.1.1 Fight against erosion and sand encroachment 1.1.2 Forests and grazing lands 1.1.3 Protection of biodiversity	1.1.1 Area of reclaimed land (ha)	0	82 000 (30% F)	Programme progress reports	Risk: Security issues in some countries Mitigation: Safest sites selected for multipurpose infrastructure; Community-based contracts for certain works Risk: Reduction of positive effects due to climate (drought) Mitigation: Systematic integration of resilient practices and technologies
		- Gullies stabilised with structures (m ³)	0	30 000		
		1.1.2.- Forests developed/agroforestry (ha)	0	15 000/21 000 (30% F)		
	S/C 1.2 Enhancement of shared natural resource management: 1.2.1 Development of tools 1.2.2 Capacity building 1.2.3. Capacity building	- Cattle corridors or tracks developed (km)	0	500		
		1.1.3. Natural habitats developed or rehabilitated (ha)	0	21 000 (30% F)		
		1.2. FRACC/PSE/SAP operationalised - Master plans of the sub-basins developed - Adaptation Strategy/CSA best practice guides developed	0 0 0	1/1/1 9 1/9		
1.2.2 Number of agro-climatological stations installed and operational -Number of managers trained on IWRM, CC and gender issues 1.2.3 Communication plan developed and implemented	0	61				
	0	1895 (30% F)				
	0	1				
Component 2: Build the people's resilience						
S/ C 2.1 Development of multipurpose infrastructure 2.1.1-Multipurpose Infrastructure (irrigation, livestock and fisheries) 2.1.2 Developed irrigated / pastoral areas (ha) 2.1.3-Navigation infrastructure	2.1.1 Irrigation/livestock/fisheries infrastructure				Programme progress reports and mid-term review reports	
	2.1.2 Irrigated/pastoral area (ha)	0	124/105/30			
	- Pastoral water reservoirs constructed /area developed (ha)	0	36 000/136 000 (30% W)			
	2.1.3 Rehabilitated navigation sections (km)					
		0	78 (30% W)			

	S/C 2.2 Attendant measures 2.2.1 Attendant measures -Organisation of Infrastructure and Fisheries Committees -Control and gainful use of invasive plants 2.2.2. Social Protection -Community adaptation infrastructure - Support to vulnerable groups - Flood protection 2.2.3. Community capacity building - Dissemination of climate change adaptation practises - Training of farmers	2.2.1 Infrastructure Management Committees set up -- Water reservoirs/floating cages stocked - Invasive plants processed and put to gainful use (km) 2.2.2 Community-based CC adaptation plans developed - Number of CC infrastructure/sub-projects funded - Number of youth SMEs set up - Protective dykes built/rehabilitated (km) 2.2.3 Number of farmers sensitised on CC adaptation practice Number of users trained in CSA practises	0 0 0 0 0 0 0 0	220 (30% W) 140/131 (30% W) 660 (30% F) 65 160/450 (30% W) 184 (50%) 122 2 000 000 (50% F) 110 000 (50% F)		Risk: Land conflicts Mitigation: Participatory approach to land security	
	Component 3: Programme Coordination						
	S/C 3.1:Regional coordination S/C 3.2: National coordination	Number of annual work plans and budgets (AWPB) Number of quarterly progress reports Number of annual audit reports accepted Number of Steering Committee meetings held	0 0 0 0	6 24 6 12	Progress reports		
Component 1: Build the resilience of ecosystems and natural resources: (i) Protection of resources and ecosystems; and (ii) Enhancement of the management of shared water resources Component 2: Build the people's resilience: (i) Development of multipurpose infrastructure; and (ii) Attendant and social protection measures. Component 3: Programme coordination and management: (i) Regional coordination; and (ii) National coordination in the countries. Component 1 = 42% Component 2 = 49% Component 3 = 9%			Sources of Financing: ADF: UA 55 million (36.2%) GCF: USD 67.8 million (31.0%) GEF: USD 12.01 million (5.5%) EU = EUR 14.6 million (8.1%) FIP = USD 9 million (4.1%) Countries = UA 16.7 million (11%) Beneficiaries = USD 6.3 million (4.2%) TOTAL: USD 218.655 million = UA 152.043 million				

PROJECT IMPLEMENTATION SCHEDULE

		2018	2019				2020				2021				2022				2023				2024			
		T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4
1	Approval by FIP, GCF	■																								
2	Board approval	■																								
3	Signing of agreements	■	■																							
4	Loan effectiveness		■																							
5	Fulfilment of conditions precedent to first disbursement			■																						
6	Project launch			■																						
7	Signing of conventions			■	■																					
8	Signing of contracts				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
9	Review and approval of sub-projects				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
10	Implementation of sub-projects					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
11	Conduct of capacity-building activities			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
12	Midterm review													■												
13	Audits						■				■			■				■				■				
14	Government's completion report																							■		
15	Completion of activities																							■		
16	End December 2025																								■	

PROGRAMME FOR INTEGRATED DEVELOPMENT AND CLIMATE CHANGE ADAPTATION IN THE NIGER BASIN (PIDACC)

Management hereby submits this report and recommendations concerning a proposal to extend (i) ADF loans to Cameroon, Côte d'Ivoire, Guinea, Mali and Nigeria; (ii) ADF grants to Benin, Burkina Faso, Guinea, Mali, Niger, and Chad; (iii) GCF loans to Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Guinea, Mali, Niger and Nigeria; (iv) GCF grants to Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Guinea, Mali, Niger, Nigeria, Chad and the Niger Basin Authority; (v) EU-AfIF grants to Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Guinea, Mali, Niger, Nigeria and Chad; (vi) GEF grants to Burkina Faso and the Niger Basin Authority; and a (vii) SCF/FIP loan to Côte d'Ivoire amounting to UA 128.918 million to finance the Programme for Integrated Development and Climate Change Adaptation in the Niger Basin (PIDACC).

I. STRATEGIC THRUST AND RATIONALE

1.1 Project Linkages with NBA and Country's Strategies and Objectives

1.1.1 The PIDACC programme is justified by the need to promote sustainable social development, protect the large water infrastructure in the Basin and the main ecosystems of the Niger River, and consolidate the good results of the Niger Basin Silting Control Programme (NBSCP). It is based on strategy papers prepared by the Niger Basin Authority (NBA), namely the Silting Control Master Plan (SCMP), the Action Plan for the Sustainable Development of the Niger Basin (PADD) and its Investment Programme (2008-2027), the Climate Investment Plan (CIP, 2016-2024) and the Operational Plan (OP, 2016-2024). PIDACC is the first CIP and OP implementation investment programme. It also helps to fulfil the commitments made by NBA countries in international agreements and in their nationally determined contributions (NDCs), as they are all signatories to the Paris Agreement.

1.1.2 The programme is in line with the principles set out in key sub-regional initiatives, policies and programmes adopted by the Governments of the participating countries in recent years, including: (i) sector strategies and priorities for the development of water resources, sustainable management of natural resources, protection of ecosystems and adaptation to climate change in the Niger River Basin; (ii) regional policies and strategies for environmental protection, adaptation to climate change and sustainable development in the Economic Community of West African States (ECOWAS), the West African Economic and Monetary Union (WAEMU) and the Economic Community of Central African States (ECCAS); (iii) socio-economic development planning documents of NBA member countries; and (iv) country strategy papers (CSPs) through their cross-cutting focus on fighting climate change.

1.2 Rationale for Bank Intervention

1.2.1 The Niger River is one of the major economic pillars of the nine NBA member countries. To date, seven of the nine countries of the Basin are among the 20 poorest countries in the world. Nearly 85% of the Basin's population live in rural areas, where food security and social well-being are directly dependent on the Basin's resources, including its water resources. The main socio-economic activities in rural areas are agriculture, livestock and fishing. Agricultural production is estimated at about 50 million tonnes per year, over 70% of which is generated in Nigeria. The overall quantity of crops produced stands at about 750 kg per capita on average, with wide variations from country to country (433 tonnes in Chad versus 1 800 tonnes in Côte d'Ivoire). The production is mainly rain-fed, since cultivated areas occupy on

average only 17.5% of the total surface area of the Niger River Basin. Livestock represents a significant sector, as the Basin is home to about 162 864 666 sheep, 27 290 133 cattle, 43 611 043 goats and 2 539 068 pigs. The insufficiency and poor spatial and temporal distribution of rainfall are the primary challenges to livestock farming. The Niger River Basin has considerable potential in fishing, a traditional activity generally undertaken by ethnic fishing groups (particularly migrant or sedentary Bozos from Mali). However, with drought and declining water flows, fishing is becoming a secondary activity, alongside agriculture and handicraft. Annual production is estimated at about 750 000 tons per year, 75% of which comes from Nigeria.

1.2.2 The development challenges facing the Niger Basin are: (i) increase in the population and vulnerable groups: the Basin is home to about 130 million people, with an average growth rate of 2.8% per year. Most of the people live in Nigeria, with more than 80 million people relying on the Basin directly for their livelihood. More than half of that population is composed of women and children under the age of 15. These people remain vulnerable to the degradation of the Basin's ecosystems and to the inadequate level of development of water infrastructure; (ii) environmental degradation: poor water and associated land management practices relating to the variability of water resources across the Basin contribute to serious degradation of ecosystems in an already poverty-stricken environment; and (iii) unilateral competitive development and weak regional coordination by the NBA: the absence of legal instruments fosters unilateral development of water resources in the Basin by the parties, thus limiting the NBA's ability to coordinate regional development.

1.2.3 Water erosion and silting constitute serious threats to the ecosystems of the Niger River, both for downstream water flows and for the maintenance of biological balances and natural ecosystems, as well as for the habitats and all socio-economic activities of the Basin. There have been steep declines (between 40 and 60%) in average annual flow volumes and a reduction in the flow period of the River's tributaries, coupled with extremely low water flow, with no flow in some years (for example, 1984 in Niamey, Niger). These phenomena, amplified from year to year by recurring droughts, degrade the living conditions of the people and biodiversity in the Niger Basin. The groups most vulnerable to these effects of climate change in the Basin are women and young people, due to their limited access to natural resources. These constraints can only be corrected through coordinated, synergistic and concerted ecosystem protection measures that are part of a broader regional programme for the sustainable development of the Niger Basin. The great variability of water resources in the Niger Basin has also created the need for storm water storage infrastructure, to address the increasing needs of the various sectors and the decrease in the River's flow. The need for multi-purpose infrastructure is justified by the fact that countries must find solutions to the food, environmental and energy crises that most of them have been facing for several years.

1.2.4 At the request of NBA countries, the Bank had financed the Niger River Silting Control Programme (SCP, 2006-2011) to test silt control approaches in the Sahel (Burkina Faso, Mali and Niger) and to develop the Niger Basin Silting Control Master Plan. Following the convincing results of the SCP, the nine NBA countries in 2012 requested the Bank's support for the preparation and implementation of PIDACC, an ambitious Basin-wide programme. In 2015-2017, the Bank provided EUR 1 million in support through the African Water Facility (AWF) and the Infrastructure Consortium for Africa (ICA) for the conduct of technical and environmental feasibility studies and the mobilisation of co-financing.

1.2.5 The Bank's involvement is in line with the guidelines set out in its agricultural, environmental, forestry and land policies. The ecological, economic and social security of NBA

countries depends largely on the sustainable and equitable management of the Niger River's natural resources. In the Niger Basin, the compatibility of development with the environment depends on the sustainability of biological resources and adherence to the carrying capacity of the soil, as well as the sustainable use of freshwater species and ecosystems in particular. The countries of the Basin by themselves cannot create the conditions for the sustainable development and equitable management of water resources to provide hope for future generations. The regional approach adopted for this programme is fully justified in that the countries share the water resources of the Niger River, which underpin the socio-economic activities of more than 130 million inhabitants. The preservation of the River's water resources and ecosystems is a regional undertaking, because measures taken in any given country will benefit countries located in downstream. This is the rationale for proposing a regional programme.

1.2.6 Therefore, the programme will contribute to the regional integration of seven (7) West African countries and two (2) Central African countries, one of the priority areas of the Bank's Ten-Year Strategy (2013-2022). The project is consistent with the Bank's Gender Strategy (2014-2018). Regionally, it is part of the regional integration strategy for West Africa (2011-2015), which has been extended until 2017, and Pillar 1 thereof relating to the development of regional infrastructure. It is also in line with the Regional Integration Strategy Paper (RISP) for Central Africa, 2011-2015, which has been extended until 2017, and Pillar 1 on regional infrastructure development. The programme accords with the Bank's vision, through three of its High 5s, namely: (i) "Feed Africa": the Strategy for the Transformation of Agriculture in Africa 2016-2025 aimed, among other things, at eliminating extreme poverty and malnutrition; (ii) Improve the quality of life for the people of Africa; and (iii) Integrate Africa through the sustainable management of the Niger River Basin's natural resources.

1.3 Aid Coordination

1.3.1 In addition to the African Development Bank, the main partners of the Niger River Basin Authority (NBA) in sectors such as natural resource management and combating silting and climate change, are the World Bank, AFD, UNDP, KFW, GIZ, GEF, WAEMU, ECOWAS, and BOAD. The areas of intervention concern the sustainable management of water resources in the Niger Basin, the fight against silting and floating plants, the conservation of natural ecosystems, and the strengthening of the people's resilience to climate change. United Nations agencies and NGOs are also actively supporting smallholders and providing humanitarian assistance in times of crisis. A consultative group of NBA technical and financial partners, with the World Bank as lead and AfDB as member, meet periodically to ensure better coordination of operations financed in the Niger Basin.

1.3.2 The partnership between donors and governments of Niger Basin countries is governed by the Paris Declaration principle. Thus, aid is coordinated through PADD with its investment plan, and the 2013-2022 (SP) operational plan, which has been chosen as the baseline for current and future interventions of the technical and financial partners (TFPs). At the NBA, aid will be coordinated through a group of TFPs, with the World Bank as lead agency. In each country, these partners are organised in a sector group often referred to as the "Agriculture, Rural Development and Environment" Group, which aims to facilitate consultation and dialogue with governments for enhanced coordination and effectiveness of external aid.

1.3.3 As of 31 July 2018, the active portfolio of the agriculture, environment and climate change resilience sector in NBA countries comprised 56 projects, including two (2) Bank-financed multinational projects for a total commitment of UA 768.3 million. The ongoing

projects of other NBA partners are also presented in **Appendix 2**. As at 31 August 2018, project implementation performance stood at 66%, as follows: 2 projects out of 9 in difficulty in Benin, one (1) out of 8 in Burkina Faso, one (1) out of 5 in Cameroon, 3 out of 7 in Côte d'Ivoire, one (1) out of one (1) in Guinea, 2 out of 13 in Mali, 5 out of 6 in Niger, 2 out of 5 in Nigeria and 2 out of 2 in Chad.

II. PROGRAMME DESCRIPTION

2.1 Programme Components

2.1.1 The programme's overall objective is to help strengthen the resilience of the Niger River's ecosystems and population through sustainable natural resource management. Specifically, it aims to: (i) preserve the Basin's ecosystems, particularly by reducing the Niger River silting process; and (ii) strengthen the resilience of production systems and the population. The programme will focus on improving the socio-economic status of women and young people, and their access to resources, which is a critical factor for eliminating poverty and infant malnutrition.

2.1.2. The programme consists of nine country projects and one regional project to be managed by the NBA, which will focus on: (i) developing natural resource and climate change adaptation tools; (ii) training the countries' managers; and (iii) coordinating and monitoring to ensure synergetic implementation of country projects to achieve regional objectives. The expected outcomes of the regional project include the development of a regional climate change adaptation strategy, climate change best practice guides and adaptation tools, an action plan to combat pollution, a regional integrated water resource management (IWRM) action plan, and an NBA gender action plan, the establishment and operationalisation of the regional climate change adaptation fund (FRACC) and the EPS mechanism, the development and operationalisation of an early warning system for floods and severe low-water levels, the training of 500 managers on IWRM, climate change and gender, communication/awareness-raising/advocacy relating to PIDACC/NB, and monitoring/evaluation of the programme's environmental, social and development impact.

2.1.3 PIDACC and its constituent projects have three components: (i) build the resilience of ecosystems and natural resources; (ii) build the population's resilience; and (iii) ensure programme coordination and management.

Table 2.1
PIDACC Components

Component	Costs in USD million	Description
<p><u>Component 1</u> Build the resilience of ecosystems and natural resources</p>	<p>88,642 (43%)</p>	<p>Sub-component 1.1: Protection of resources and ecosystems Strand 1: <u>Erosion and silting control</u> - 8 000 ha of dune stabilisation - 74 000 ha of water and soil conservation work on degraded lands - 30 000 m3 of mechanical and biological treatment of ravines Strand 2: <u>Sustainable agricultural, silvicultural and pastoral management</u> - 15 000 ha of participatory management and reforestation and rangelands - 21 000 ha of agroforestry - 500 km of livestock corridors and tracks developed Strand 3: <u>Development of wildlife and plant reserves</u> - 13 500 ha of natural habitats (wildlife reserves) developed and conserved - 7 700 ha of spawning grounds and rehabilitated wetlands</p>
		<p>Sub-component 1.2: Strengthen the shared management of natural resources Strand 1: Development of tools - 1 regional climate change adaptation strategy developed - 1 FRACC, EPS, SAP operationalised - 4 CSA best practice guides and technologies developed and disseminated - 5 adaptation tools developed and disseminated - 1 agroforestry manual developed and disseminated Strand 2: Capacity building - 9 participatory sub-basin management plans developed - 61 agro-climatological stations set up - Operationalization of IWRM in the 9 sub-basins, - 10 000 farmers educated on water and soil pollution control - 1 895 managers and 500 heads of professional associations trained - 500 local community managers trained in REDD + Strand 3: Communication, monitoring and evaluation - 1 communication plan developed and implemented</p>
<p><u>Component 2</u> Build the population's resilience.</p>	<p>96,901 (49%)</p>	<p>Sub-component 2.1: Development of multipurpose infrastructure: Strand 1: <u>Irrigation infrastructure</u> - 124 water reservoirs (irrigation infrastructure) built/rehabilitated - 36 000 ha of irrigated areas developed/rehabilitated Strand 2: <u>Livestock farming infrastructure</u> - 105 pastoral water reservoirs built/rehabilitated - 136 000 ha of pastoral development Strand 3: <u>Navigation infrastructure</u> - 78 km of navigation sections improved by dredging and cutting Strand 4: <u>Fishing infrastructure</u> - 40 fish farms built - 30 landing stages and ferry docks built/rehabilitated</p>
		<p>Sub-component 2.2: Support and social protection measures Strand 1: <u>Accompanying measures</u> - 220 multipurpose infrastructure management committees set up and trained - 140 reservoirs filled with fish - 131 floating cages installed - 660 km of invasive plants treated and rehabilitated Strand 2: <u>Social protection</u> - 65 climate change community adaptation plans developed - 160 adaptation infrastructure facilities built/rehabilitated - 450 sub-projects for value chain development (fisheries, cereals, garden products, and livestock farming) financed - 184 young SMEs supported - 122 km of protection dikes built/rehabilitated</p>

<i>Component</i>	<i>Costs in USD million</i>	<i>Description</i>
		Strand 3: Community capacity building - 2 000 000 farmers educated through information campaigns - 10 000 farmers supported over three years to participate in implementing nine protocols signed with research institutes in each country - 110 000 users trained on integrated water management, natural resource management (NRM) and climate change
<u>Component 3</u> Project management	19 340 (9%)	- Planning of project activities - Coordination and monitoring of activities - Procurement of goods, services and works - Financial management - Project monitoring/evaluation - Annual audits and final project evaluation

2.1.4 In this regard, PIDACC will pursue two complementary approaches: (i) the value chain approach based on promising sectors (cereals, livestock, market gardening products, etc.) for securing, storage and increase of supply, and marketing of agricultural products; and (ii) the climate-smart agriculture (CSA) approach to transform and reorient agricultural systems to achieve food security more effectively and more sustainably, in the context of the new realities of climate change. It will contribute to the training and dissemination of resilient technologies and climate change adaptation practises for the benefit of various stakeholders, most notably farmers, thanks in particular to the support and training provided by the technical services in terms of advisory support and organisation. It will also bring technical innovations stemming from research findings. Furthermore, it will allow young people and women to develop technical and entrepreneurial capacity in an inclusive manner, and to settle on land with innovative technological packages. PIDACC will also test an approach to restore the productivity of degraded savannahs to encourage the return of populations that have migrated to the most fertile areas.

2.2 Technical Solutions Adopted and Alternatives Explored

2.2.1 The theory of change underpinning PIDACC is summarised in Appendix 4. Water erosion and silting pose a serious threat for downstream flows and the maintenance of biological balances and natural ecosystems, as well as for habitats and all socio-economic activities in the Niger Basin. Major climate projection trends show: (i) an overall rise in temperature and hence evapotranspiration in the Niger Basin (1 to 3°C by 2065); (ii) increased variability of rainfall and related extreme events (floods, droughts); and (iii) sea-level rise in the Delta. These factors combined with high population growth and poverty will make populations and ecosystems more vulnerable to climate change by further degrading living conditions and biodiversity in the Niger Basin.

2.2.2 The technical solutions adopted during the feasibility studies carried out in each country between 2016 and 2018 are based on an integrated approach comprising: (i) securing water resources by treating the watershed with co-benefits of carbon sequestration; (ii) mobilising water through the construction of multi-purpose infrastructure; (iii) conserving water for agricultural, silvicultural and pastoral activities through the dissemination of climate-smart agriculture (CSA) practices and technologies; and (iv) building the climate change adaptation capacity of vulnerable groups for mainstreaming climate information in the management of agro-pastoral and fish farming activities. The Niger Basin Silting Control Master Plan has identified the most vulnerable areas in each country. PIDACC's choice of activities and areas of intervention is based on the intervention principles adopted during the preparation mission: (i) promoting community-managed infrastructure; (ii) focusing the

programme on the operationalisation of IWRM in member countries; (iii) concentrating interventions in the active Basin for greater efficiency; and (iv) promoting the implementation of integrated sub-projects comprising a package of activities (infrastructure, Basin treatment, erosion control, development, etc.). The summary designs of multipurpose infrastructure were completed in 2018 for each country's project and PIDACC activity concentration sites have already been identified. The detailed designs will be carried out during the programme phase.

2.2.3 The development of agriculture will be supported through: (i) improvement of total or partial irrigation, by rehabilitating/building small dams; (ii) improvement of other irrigated farming systems: submersion and recession; (iii) development of agroforestry to protect the watershed and improve agricultural performance; (iv) development of lowlands; and (v) soil and water conservation (SWC) measures on rain-fed land to limit the negative impacts on the river (silting, in particular), but also to improve the performance of rain-fed agriculture and food balance sheets.

2.2.4 With regard to support for the livestock farming sector, the following priority topics have been selected: (i) pastoral water systems through the development of reservoirs and pastoral ponds; (ii) integration and development of transhumance corridors and routes between countries to limit conflict and reduce weight loss during transportation; and (iii) fight against degradation of land and fodder resources on natural pathways. Support for fisheries activities will revolve around: (a) rebuilding of the fisheries potential through the development of spawning grounds and floodplains; (b) promotion of fish farming in multipurpose facilities; (c) construction and/or rehabilitation of support infrastructure for fish production (fingerling production stations, landing stages); and (d) establishment and strengthening of best practice, and education of fishermen.

2.2.5 The synergistic implementation of all programme components requires a common approach for each country that includes: (i) preparation of a sub-basin development plan for each country; (ii) construction/rehabilitation of multipurpose water system infrastructure; (iii) implementation of soil and water conservation/soil protection and restoration (SWC/SPR) sub-projects by sub-basin communities and/or enterprises; (iv) development of climate change adaptation community action plans; (v) financing of sub-projects for the development of agricultural, silvicultural, pastoral and fish-farming activities around infrastructure; (vi) support for communities in the use of climate information and the management and maintenance of infrastructure; and (vii) REDD + training for local communities to ensure that forest resource management in the programme area is inclusive and shared. Each activity concentration site will include multipurpose water system infrastructure, SWC/SPR measures in the watershed, community adaptation infrastructure, building the adaptive capacity of communities and implementing sub-projects for the development of the agricultural value chain.

*Table 2.2
Alternatives Explored and Reasons for Rejection*

Title	Short Description	Reason for Rejection
Construction of large-scale multi-purpose water system infrastructure	Build large dams at strategic locations to provide sufficient quantities of water for the needs of hydroelectric facilities and agro-pastoral communities.	<ul style="list-style-type: none"> • Weak institutional capacity to ensure viability and community management of large-scale water system facilities • High cost and potential negative impacts on the environment • Needs of livestock and the population, and agricultural irrigation systems spread across agricultural, silvicultural and pastoral areas, hence the need for several small water system infrastructure facilities
Sharp increase in the number of underground water collection points	Create a multitude of new water collection points, including boreholes, wells and small ponds to improve access to water, mainly during dry seasons	<ul style="list-style-type: none"> • Potential overgrazing or new housing needs • Absence of reliable data on groundwater • Dewatering resources poorly adapted to isolated rural communities • Infrastructure facilities not suitable for multiple uses, including fish farming
Separate national projects	Carry out a resilience project in each country	A regional approach is required and provides greater efficiency for collaboration to find solutions to food insecurity and combat silting of the Niger River

2.3 Project Type

PIDACC is a regional operation to be financed in the form of ADF-14 loans/grants (country allocations and Regional Operations (RO) window), the Green Climate Fund (GCF), the Strategic Climate Fund/Forest Investment Programme (SCF/FIP), the Global Environment Facility (GEF), the European Union (EU), the countries concerned, the ABN and the beneficiaries. The regional component, which will benefit all NBA member countries, is funded through GEF and GCF grants. The programme aims to combat climate change by securing agro-pastoral production systems, increasing forest carbon stocks, managing natural resources and ecosystems in a sustainable manner, and fighting poverty.

2.4 Programme Cost and Financing Arrangements

2.4.1 The total cost of PIDACC, excluding taxes and customs duties, is estimated at UA 152.04 million, or about USD 218.66 million. The cost is divided as follows: USD 137.17 million in local currency and USD 81.49 million in foreign exchange. Average forecasts of 5% and 4% were added to the base costs for physical contingencies (USD 11.02 million) and financial contingencies (USD 7.18 million), respectively. Construction costs were estimated based on feasibility studies and the latest contracts for similar works. The summary of estimated costs by component, expenditure category and sources of financing, as well as an expenditure schedule are presented in the tables below. The detailed tables of project costs and the list of goods and services of the nine countries and the NBA can be found in the Technical Annexes (Annex B2) of this report.

2.4.2 With regard to the provisions in relation to financing from the resources of the Africa Investment Facility (AfIF) (PAGODA grants), the Boards on 12 July 2017 approved the Framework Agreement between the European Commission (EC) and the Bank, referred to as the "Pillar-Assessed Grant or Delegation Agreement (PAGODA)" (Resolution No. B / BD / 2017/124 - F / BD / 2017/87). On 22 February 2018, the EC approved a grant of EUR 14.6 million for PIDACC . The Bank and the EC are expected to sign a Delegation Agreement with regard to the project, which will define the activities entrusted to the Bank for implementation under the project. It will define the implementation modalities, lay down the rules governing the transfer of the EU's contribution and further define the relations between the Bank and the EC. The resources to be obtained from the AfIF shall be disbursed and managed by the Bank.

Table 2.3
Summary of PIDACC Estimated Costs by Component

COMPONENTS	(USD Thousand)			(UA Thousand)			% F.E.	% Base Cost
	Local Currency	Foreign Exchange	Total	Local Currency	Foreign Exchange	Total		
A. Build the resilience of resources and ecosystems	61,204	21,658	82,863	42,559	15,060	57,619	26	41
B. Build the population's resilience	49,028	50,575	99,604	34,092	35,168	69,260	51	50
C. Project management	16,066	1,925	17,991	11,172	1,338	12,510	11	9
BASE COST	126,300	74,158	200,458	87,823	51,567	139,390	37	100
Physical contingencies	5,666	5,353	11,019	3,940	3,722	7,663	49	5
Financial contingencies	5,201	1,976	7,177	3,617	1,374	4,991	28	4
TOTAL COST OF PROJECT	137,168	81,488	218,655	95,380	56,663	152,043	37	109

Table 2.4
Summary of Cost Estimates by Expenditure Category

EXPENDITURE CATEGORY	(USD Thousand)			(UA Thousand)			% F.E.	% Base Cost
	Local Currency	Foreign Exchange	Total	Local Currency	Foreign Exchange	Total		
Works	63,937	58,718	122,654	44,459	40,830	85,289	48	61
Goods	7,108	10,026	17,134	4,942	6,972	11,914	59	9
Services	40,740	5,415	46,155	28,329	3,765	32,094	12	23
Operation	14,514.8	-	14,515	10,093	-	10,093	-	7
Base cost	126,300	74,158	200,458	87,823	51,567	139,390	37	100
Physical contingencies	5,666	5,353	11,019	3,940	3,722	7,663	49	5
Financial contingencies	5,201	1,976	7,177	3,617	1,374	4,991	28	4
TOTAL COST OF PROJECT	137,168	81,488	218,655	95,380	56,663	152,043	37	109

Table 2.5
Schedule of Expenditures by Component [Amounts in UA '000]

Components	2019	2020	2021	2022	2023	2024	TOTAL
A. Build the resilience of resources and ecosystems	15,354	14,152	12,702	11,004	6,069	3,361	62,641
B. Build the population's resilience	11,542	18,359	19,620	15,411	9,216	2,232	76,379
C. Project management	3,945	1,817	1,791	1,829	1,835	1,802	13,023
TOTAL	30,844	34,328	34,114	28,244	17,119	7,395	152,043

2.4.3 PIDACC will be financed by ADF-14 in the form of grants and loans amounting to UA 55.00 million; GCF in the form of grants and loans amounting to USD 67.80 million; the EU in the form of grants amounting to EUR 14.60 million; GEF in the form of grants amounting to USD 12.01 million; governments of the nine countries, the NBA and the beneficiary population amounting to USD 33.42 million or 15.2%. ADF resources and other partners will finance nearly 84.8% of investment expenditures (works, goods and services) and operating expenses. Government contributions will finance both investment and operating expenditures. The contribution of beneficiaries will be in kind (by performing works) and in cash by covering the operating and maintenance costs of socio-economic infrastructure. All co-financing (GCF,

GEF, EU, SCF/FIP) will be managed by the Bank. German Cooperation (KfW) will provide parallel co-financing of EUR 10 million for the Mali project and EUR 14 million for the Guinea project.

Table 2.6
Sources of Financing

Sources of Financing	(USD Thousand)			(UA Thousand)		Total	% Total
	Local Currency	Foreign Exchange	Total	Local Currency	Foreign Exchange		
GCF grant	43,128	14,586	57,714	29,990	10,142	40,132	26.4
GCF loan	5,510	4,493	10,002	3,831	3,124	6,955	4.6
GEF	9,240	2,770	12,010	6,425	1,926	8,351	5.5
EU	13,599	4,054	17,653	9,456	2,819	12,275	8.1
ADF grant	19,919	26,135	46,054	13,851	18,173	32,024	21.1
ADF loan	14,384	18,694	33,079	10,002	12,999	23,002	15.1
FIP loan	4,712	1,648	6,361	3,277	1,146	4,423	2.9
FIP grant	274	2,366	2,640	190	1,646	1,836	1.2
Government	21,119	2,925	24,044	14,685	2,034	16,719	11.0
Beneficiaries	5,124	3,814	8,938	3,563	2,652	6,215	4.1
NBA	157	2	160	109	1	111	0.1
TOTAL	137,168	81,487	218,655	95,380	56,663	152,043	100.0

2.5 Programme Intervention Area and Beneficiaries

2.5.1 **Programme area:** The programme intervention area covers the nine Niger Basin countries, comprising seven ECOWAS countries (Benin, Burkina Faso, Côte d'Ivoire, Guinea, Mali, Niger and Nigeria) and two ECCAS countries (Cameroon and Chad). PIDACC will be concentrated in the following regions in each country: **Benin** (Borgou, Alibori and Atakora Departments), **Burkina Faso** (East, Centre-East, North-Central, Hauts Bassins, Central Plateau and Sahel Regions), **Cameroon** (North and Far North Regions), Côte d'Ivoire (Bagoué, Folon and Kabadougou Regions), **Guinea** (Upper Guinea and Forest Guinea Regions), **Mali** (Koulikoro, Sikasso, Ségou, Mopti, Timbuktu, Gao and Kidal Regions), **Niger** (Tillabéri, Dosso, Tahoua and Niamey Regions), **Nigeria** (Upper Niger River Basin, Upper Benue River Basin, Anambra-Imo River Basin), and **Chad** (Mayo Kebbi West and Mayo Kebbi East Regions).

2.5.2 **Beneficiaries:** The programme will directly benefit about 4 million smallholder farmers in the nine countries of the Niger Basin, 51% of whom will be women. The direct beneficiaries targeted by the project are smallholder farmers and vulnerable groups (women and young people). The project will focus on the restoration of ecosystems and the development of agricultural value chains. The value chain approach will be reinforced by the smart-climate agriculture (SCA) approach, which will help to shape measures aimed at transforming and reorienting agricultural systems to achieve food security more efficiently and more sustainably in the context of climate change. The project will build the capacity of smallholder farmers, women and young people through training and the provision of farming, processing and farm produce conversion equipment. PIDACC will also improve access to decision-making positions for women, who will constitute at least 30% of members of the various committees that will be set up. Technical services at the regional, national and local level (NBA, SFN, intervention areas) will be provided with tools and practical guides and manuals on the different approaches developed, which will ensure monitoring of programme results and replicability of best practice.

2.6 Participatory Approach for Project Identification, Formulation and Implementation

The approach adopted in the PIDACC preparation was largely participatory and inclusive in all countries, with the involvement of all stakeholders (ministerial, devolved and decentralised technical entities, associations of water users, women, farmers, fishermen, livestock farmers, quarry operators, brick-making units along the river, etc.). Preparation of PIDACC began in September 2012 with the identification mission. The preparation mission took place in April 2014 and involved data collection at country level as well as visits to intervention sites. It also served as a forum for discussions with stakeholders to enhance their understanding of PIDACC, notably the intervention methods and approaches. A regional meeting to discuss the programme, bringing together the different stakeholders, including the focal points within the ministries supervising the NBA, was held from 17 to 18 April 2014 in Niamey, at the NBA headquarters. The country-component feasibility reports, the regional synthesis and the strategic environmental and social assessment report were validated at a regional workshop held in Conakry in November 2016. Stakeholder consultations continued while the technical studies (summary design), annual NBA meetings and the evaluation mission were being conducted. Implementation will be based on the participatory approach and on decentralisation, with the close involvement of the stakeholders concerned, and more specifically the beneficiary population, from the determination of needs to the participatory monitoring and evaluation of sub-projects. All sub-projects will be initiated following request by communities. A regional technical monitoring committee (CTRS) bringing together all community technical services will be set up in each programme intervention region. Furthermore, a site management committee will ensure the participation of communities in designing and monitoring sub-projects around each activity concentration site. The programme will work with local NGOs, youth organisations and socio-professional organisations in various fields to facilitate ownership and ensure sustainability of interventions.

2.7 Bank Group Experience and Lessons Reflected in Programme Design

2.7.1 The Bank has financed regional operations in a multitude of sectors in several regional economic integration organisations, with varying degrees of success. These interventions were aimed at promoting economic cooperation and integration, and enhancing economic growth, resilience of populations and ecosystems, and the social development of countries. For example, the Bank has supported multilateral programmes initiated by ECOWAS, the Permanent Interstate Committee for Drought Control in the Sahel (CILSS), WAEMU, the Senegal River Basin Development Authority (OMVS), the Gambia River Basin Development Organization (OMVG), NBA, the Mano River Union and Horn of Africa. Recently completed regional operations in the sector are: (i) the Niger River Basin Silting Control Programme, completed in 2010, and (ii) the Integrated Management of Aquatic Plants Project in West Africa, completed in 2011. Completion reports for these projects were approved and implementation of the projects was deemed satisfactory, with an average rating of 3. Lessons from these experiences highlight: (i) the need to adopt projects that are simple in design and focused on priority measures for poverty reduction, and for which people can be mobilised; (ii) the involvement of decentralised authorities in the implementation of projects through the participatory approach, an important pillar for the sustainability of measures; (iii) the participatory approach based on the decentralised management of forest resources, which ensures strong buy-in from the population; (iv) the strong mobilisation and involvement of women in the preservation of natural resources and development of revitalised spaces/lands; and (v) the limitation of rural exodus by creating employment opportunities in rural areas.

2.7.2 Lessons from these experiences, as well as Bank operations in its priority areas (“Feed Africa” and “Improve the quality of life for the people in Africa”, IDEV 2017) were taken into consideration. They served as the basis for the design of PIDACC through, among others: (i) planning of simple work and implementation of participatory approaches as well as empowerment of beneficiaries; (ii) support for building the capacity of the NBA and the public, private and community institutions involved in the programme, to ensure the efficient and sustainable management of the relevant infrastructure and production chains, and raising awareness of smart-climate agriculture (SCA) practices and technologies; (iii) establishment of a harmonised regional approach to programme development with consultative workshops involving all relevant countries; (iv) empowering States to implement national components with support from the programme regional coordination unit; (v) strengthening the procurement and financial management capacity of PIDACC management agencies; and (vi) cross-cutting integration of the gender, environment and value chain approach.

2.7.3 The Niger Basin Authority has implemented and completed five regional Basin-wide projects in the past ten (10) years. The main lessons from the completed projects are: (i) the need for an innovative participatory approach that empowers beneficiaries; (ii) the SCP institutional set-up facilitated the successful implementation of this programme; (iii) the sustainable management of the Basin's resources will depend on measures reconciling users' local development needs and environmental protection requirements; and (iv) the proper functioning of the observatory's activities is closely linked to the national focal entities of the NBA, whose role remains to be consolidated. PIDACC was designed based on these lessons, with the adoption of the SCP institutional set-up, the participatory implementation approach and its parallel investment approach on the resilience of populations and ecosystems. It will be implemented in synergy with all ongoing projects in each intervention area, coordinated by the regional technical monitoring committees.

2.8 Key Performance Indicators

The main performance indicators are those set out in the results-based logical framework, while detailed specific national indicators are presented in the technical documents, the monitoring of which will be coordinated by the monitoring and evaluation officers of the Programme Implementation Unit, in close cooperation with all partners and associated entities, including the national directorates responsible for water resources, water and forests and rural engineering, the GEF focal point, the GCF focal point and the focal entity of the NBA. Starting from the baseline situation, monitoring will cover, among others: (i) new and rehabilitated rural infrastructure (number of water systems, SPR, social, agricultural, silvicultural, pastoral and fishery production facilities); (ii) irrigated areas (M/W); (iii) additional production levels; (iv) level of governance of grassroots organisations; (v) quality of training and number of people trained; (vi) level of women's involvement in decision-making bodies (percentage); (vii) women's rate of access to reclaimed land; (viii) ability of households to adapt to climate change (increase in income, diversification of elements); (ix) ability of ecosystems to adapt to climate change (increase in protected areas, volume of water mobilised, improvement of crop productivity and biomass); (x) percentage of production integrated into an agricultural value chain; (xi) rate of adoption of resilient technologies (M/W); (xii) number of GIEs supported (M/W); (xiii) number of green jobs created (M/W); (xiv) number of farmers adopting climate-smart agriculture (CSA) best practice; (xv) number of training and awareness programmes implemented; and (xvi) number of women participating in training and awareness programmes. The level of achievement of each of the indicators will be reported by the various supervision missions and set out in the periodic progress reports.

III. PROJECT FEASIBILITY

3.1 Economic and Financial Performance

3.1.1 The project's financial analysis was based on the cost/benefit of additional cash flows from crop production models resulting from the developments, animal, fisheries and forestry production. The assumptions used are: (i) the three components of the programme are successfully implemented; (ii) the programme impact assessment period is 25 years; (iii) capital opportunity cost is estimated at 12%; (iv) the prices, outputs and average basic production costs for 2017 were used for the baseline situation in the project area in the nine countries; and (v) taxes and subsidies were excluded from the prices and financial costs to obtain the prices and economic costs. Results were generated based on these assumptions and the programme costs estimated by COSTAB. The results are attached in this report as Technical Annex B6 and summarised as follows:

*Table 3.1
Key Economic and Financial Data*

<i>NPV (baseline scenario)</i>	<i>USD 171.66 million</i>
<i>IRR (baseline scenario)</i>	<i>20.7 %</i>
<i>ERR (baseline scenario)</i>	<i>23.8 %</i>

3.1.2 Financial Performance: PIDACC has financial impact on the income of beneficiaries and households in the programme target areas. Average additional income generated is estimated at CFAF 425,715 per hectare. The internal rate of return (IRR) based on financial costs is estimated at 20.7%, for net present value (NPV) of CFAF 61 516 million. This rate is satisfactory since it is largely higher than the capital opportunity cost of 12%. This high level of output will help to reduce the incidence of poverty and the persistent food and nutritional insecurity in the target areas.

3.1.3 Economic Performance: The benefits (tangible and intangible) of the economic project stem from the supplementary value added generated by the programme over a 25-year period, plus the additional agricultural, animal, fisheries and forestry production. This value added will contribute to raising the GDP of the countries concerned to the same level. The baseline economic rate of return (ERR) stands at 23.8% for a net present value (NPV) of CFAF 97 271 million. For households, the benefits of the project will also translate into improved nutrition and resilience among vulnerable groups (children, women of childbearing age and the elderly), reduced medical bills, less burdensome domestic chores and, in the long term, increased life expectancy for residents of the areas.

3.1.4 Sensitivity Analysis: Sensitivity tests were conducted on the economic and financial performance indicators (IRR, ERR and NPV) based on a 10% decrease in prices and a 10% escalation in factor costs. The result is that, for the IRR, the variation stands at 18.4% and 18.6%, respectively, while for the ERR it is 20.7% and 21.0%, respectively. These results confirm the important role that PIDACC will play in wealth creation and poverty reduction by controlling the effects of climate change on the people of the Niger Basin. The results of the financial and economic analysis show that PIDACC is robust and financially/economically viable.

3.2 Environmental and Social Impact

3.2.1 **Environment.** The programme is classified in environmental Category 1, given its potential impacts on the biophysical and human environment. In accordance with the Bank's Integrated Safeguards System (ISS), the programme was the subject of a Strategic Environmental and Social Assessment (SESA), which covered the Environmental and Social Management Framework (ESMF). The SESA was validated and published on the Bank's website in August 2017. PIDACC will have major positive impacts on the environment and on the preservation and restoration of the natural resources and ecosystems of the Niger River. Notably, it will lead to: (i) better biodiversity conservation; (ii) improvement of the production capital of the agricultural, forestry, pastoral and fisheries sectors; (iii) the preservation of the quality of water resources; (iv) reduced greenhouse effect by developing carbon sinks and emissions from deforestation and forest degradation; (v) the conservation of watersheds and soils, and prevention of erosion; and (vi) the security of agro-pastoral and fisheries production. The most significant negative impacts on the environment include: (a) destruction of vegetation during multipurpose infrastructure construction works; (b) soil disturbance; and (c) water and soil pollution related to pesticide use. The ESMF outlines the mitigation measures aimed at minimising and reducing the potential negative impacts and effects of the project, as well as those intended to optimise its potential benefits. It also lays out the costs and arrangements relating to those mitigation measures. The implementation of environmental measures will involve various actors (administration, local authorities, communities, grassroots organisations, NGOs, the population, women, the private sector, research institutes, service providers and specialised consultants, etc.). PIDACC's environmental monitoring will be conducted by the entity responsible for the Environment and Sustainable Development in each country.

3.2.2 **Climate Change:** PIDACC is a climate change adaptation programme in the sense that it minimises the negative impact of climate change on natural resources, ecosystems and on the agricultural, forestry and fisheries sectors. Activities planned for soil conservation, deforestation control, reforestation, optimal management of surface water and groundwater, the organisation and management of wood resources, etc., will all contribute to the preservation of the environment and adaptation to climate change. The value chain approach, bolstered by the Climate-Smart Agriculture (CSA) approach, will help to transform and refocus agricultural systems to achieve more efficient and more sustainable food security in the context of new the realities brought about by climate change. The project will build the capacity of smallholder farmers and women by providing training and equipment for processing and adding value to agricultural products. All PIDACC components will help to mitigate and ensure adaptation to the effects of climate change. Activities for raising awareness about sustainable natural resource management and adaptation to CC, the mobilisation of water resources for agro-pastoral purposes, soil and water conservation/soil protection and restoration (SWC/SPR) activities, tree planting in agroforestry and also as part of a full tree plantation or firewall project, will help to increase production and the rate of forest cover. In addition, the shade created by planted trees will foster the development of a microclimate that is favourable to other crops. Carbon stocks are constituted, thus mitigating the effects of global warming. Furthermore, alternative income from the project will enable people to compensate for the losses and expenditures caused by climate change, including drought, and decreases in soil fertility. Hence, PIDACC will produce a threefold benefit: 'Adaptation, Mitigation and Poverty Control'.

3.2.3 **Gender:** Women of the Basin are for the most part confronted with poverty because, according to available data, it appears that 4 out of 5 poor people in the area are women and, despite their numerical superiority, they are not the primary beneficiaries of the socio-economic system. Women are overburdened by domestic chores (cooking, water- and wood-fetching,

processing of agricultural products, farm work, education of children, etc.), and subject to the weight of tradition and customs. In addition, they face difficulties in having access to land ownership, bank credit and paid employment. The gap observed in recent years between the Human Development Index (HDI) and the UNDP Gender Inequality Index shows a high level of women's marginalisation in the socio-economic sector in countries of the Basin. PIDACC is classified in Category 2 of the Bank's Gender Safeguard System. The Gender Action Plan (GAP) for women and young people is presented in Volume II of the Annexes. Expected outcomes include: access to 50% of recovered land, 30% of developed land, 50% of training and education provided, 30% of natural resources management SMEs, 30% of income from water and diversification sub-projects, processing units and 30% of the infrastructure management committees to be set up. The total budget is USD 53 million or 31% of the investments that will be made. A GAP adapted to the context of each country will be developed at the start of the programme to define the implementation modalities.

3.2.4 Social Impact: PIDACC will help to (i) secure and increase agricultural, silvicultural, pastoral and fisheries production in the Niger Basin; (ii) increase the average income of producers by 25% from USD 1 251 in 2017 to USD 1 565 in 2020; and (iii) create 100 000 jobs in the agricultural value chain. Hence, the people's resilience will be strengthened because of the increased availability of water resources (280 million m³ per year) and the systematic integration of climate information into agro-pastoral activities. The promotion of sustainable management of the natural resources (soil, water, forest) of the Niger Basin will contribute to the restoration and preservation of the river's ecosystems, thus helping to secure the socio-economic activities of the people directly affected by the programme, estimated at 4 million. The success of the approach advocated by PIDACC, consisting in the concentration of programme intervention sites, will be likely to induce a process of self-satisfaction and support from the people. Through the proximity effect, this will spark an endogenous development throughout the Niger Basin, which is the sole means of reversing the silting of the Niger River and ensuring the preservation of ecosystems in the medium-term and at low-cost. The behavioural changes induced by the programme's intervention approach will contribute to an accelerated progression of community activities in terms of improving the resilience of the people and the ecosystems, and establishing sustainable financing for activities to foster the preservation and sustainable management of natural resources in the medium term, through an environmental services payment (ESP) system. The programme will also strengthen the regional integration of the Basin countries and the strategic role of the NBA for better coordination of the Sustainable Development Action Plan (SDAP).

3.2.5 Involuntary Resettlement: PIDACC activities will not entail any population displacement.

IV. IMPLEMENTATION

4.1 Implementation Arrangements

4.1.1 Implementation Modalities: The programme's institutional framework at the regional and local level is presented in Appendix 5. At the regional level, the NBA Executive Secretariat (ES), acting through the NBA Technical Directorate, will be responsible for coordinating the programme. The existing Regional Steering Committee (RSC) for NBA Projects and Programmes and the Regional Programme Coordination Unit (RPCU) are the regional agencies dedicated to the project. The Regional Steering Committee provides guidance and ensures that the objectives assigned to the regional project are achieved. Its tasks include approval of the budgets, activity reports and annual accounts. It is chaired by the NBA Executive Secretary in

accordance with the instrument in force, and its secretariat is provided by the NBA Technical Director.

4.1.2 Regional Executing Agency: The Regional Coordination Unit of the PIDACC/NB will be attached to the NBA Technical Directorate and will comprise seven (7) managers dedicated to the programme: the Regional Coordinator, an IWRM Expert, a climate change expert, a monitoring and evaluation expert, a communication, mobilisation and gender expert, a financial and accounting management expert, and a procurement expert. The support staff will include a social/communication/gender mobilisation assistant, a procurement assistant, an accountant, a secretary and 3 drivers. The NBSCP RPCU provided human and material resources needed to set up the PIDACC/NB RPCU. The experts in charge of IWRM, communication, social and gender mobilisation, financial and accounting management and procurement will be appointed by the NBA Executive Secretary. The coordinator and the monitoring/evaluation expert will be transferred from the NBSCP to PIDACC. The CC expert, the procurement assistant and the support staff will be recruited through calls for applications. Their profiles will be defined by the NBA Executive Secretary. Appointed experts will receive allowances while recruited experts will receive salaries from programme resources.

4.1.3 In all countries, the programme's Executing Agency is the NBA parent Ministry, under the Director of Cabinet or the Secretary General, depending on the country. The agencies dedicated to the programme in each country are: the National Steering Committee (NSC) or the Review Committee for Burkina Faso, and the Programme Coordination Unit (PCU). The National Steering Committee provides guidance and ensures that the project's assigned objectives in each country are achieved. Its tasks include approval of the budgets, activity reports and annual accounts. It will be chaired by the Secretary General or Director of Cabinet or any designated person, depending on the country of the NBA parent Ministry, and shall include all relevant actors at the central and regional level, in accordance with the instruments in force. Its secretariat will be provided by the NFS Coordinator assisted by the programme coordinator, who will also be responsible for the strategic coordination and management of relations with the NBA.

4.1.4 National Executing Agency. The PIDACC National Coordination Unit in each country will be attached to the NBA parent Ministry and will comprise a team of seven (7) managers dedicated to the programme: a coordinator, a water and forestry engineer (responsible for soil and water conservation (SWC) and environment-related works), a rural engineer (responsible for water and community infrastructure), a financial and accounting management expert, a procurement expert, a social and gender development expert, a monitoring and evaluation expert, and support staff. The PCU will be based in the programme area. In Burkina Faso, Mali and Niger, the NBSCP Project Coordination Unit will be provided human and material resources required for the establishment of the PIDACC Project Coordination Unit (PCU). The coordinator, the social development and gender expert, and the monitoring/evaluation expert will be appointed by the NBA parent Ministry. Staff from the NBSCP Project Coordination Unit (PCU) will be transferred to the PIDACC PCU. The water and forestry engineer will be appointed by the Ministry of Forestry, while the Infrastructure Engineer will be appointed by the Ministry of Agriculture. The financial and accounting management expert, the procurement expert and support staff will be recruited through a call for applications. Their terms of reference will be defined by the parent Ministry in each country and approved by the Bank prior to recruitment. Appointed experts will receive allowances while recruited experts will receive salaries from programme resources.

4.1.5 **Local Level:** The national steering mechanism will be supplemented at the sub-basin level by a regional technical monitoring committee (CRTS) to be established in the programme's area of intervention to ensure close monitoring and approval for sub-projects. The Devolved Directorates of the Ministry in charge of Water Resources will be responsible for coordination in the programme's area of intervention in each country.

4.1.6 **Procurement Procedures:** Procurement of goods (including non-consulting services), works and the selection of consultancy services, financed by the Bank under the programme, will be carried out in accordance with the *Procurement Policy for Bank Group-Funded Operations*, October 2015 edition, and in accordance with the provisions of the financing agreement. The assessment of national procurement systems of the countries, carried out by the Bank in 2013 and periodically updated, concluded that, for the most part, these systems are generally satisfactory from the legislative and regulatory standpoint, and that the national standard bidding documents are modelled on the standard documents of multilateral development banks and international financial institutions. This assessment, supplemented with the market assessment, indicates that certain procurement of goods and works for this programme, following the defined thresholds, will be carried out in accordance with the countries' public procurement legislation, using country standard bidding documents in the case of Benin, Burkina Faso, Cameroon, Chad, Cote d'Ivoire, Mali and Niger. For Guinea, Nigeria and the NBA, the Bank's methods and procedures will be applied for the procurement of goods, works and consultancy services. However, procurement of consultancy services will be made using the Bank's procurement methods and procedures, with standard Bank documents.

Procurement financed with ADF resources shall be open to all countries. Procurement financed by the resources of the special funds administered by AfDB are subject to the rule of origin. The Board of Directors of the ADB shall be requested to waive the Bank's rule of origin, to open the procurement of goods, works and services financed from the resources of the EU-AfIF (PAGODA), GEF, SCF and GCF grants to countries that are non-member states of the Bank.

4.1.7 **Agreements will be signed** with specialised and experienced agencies to carry out or monitor the tasks that fall within their area of expertise. These agreements and the reasons thereof are set out in the Annex to Volume II of the component of each country.

4.1.8 **Financial Management:** The programme budget at the regional level and in each country will be broken down and presented each year as annual budget on the basis of the procurement plan and the activities to be carried out, and subject to the approval of the RPC and the NPC, respectively. Budget execution is monitored internally by the RPCU for the regional component and the PCU for each component that produces monthly budget execution statements and analyses of budget variances. The entire budget system will be managed according to the procedures manual to be prepared and the specific budgetary and accounting module of the software to be procured. This software will be the only one used for all NBA projects and programmes. The risk of the programme not being budgeted is therefore low. The accrual accounting method will be used for the project, managed with the help of software that integrates the accounting and analytical budgetary modules. The accounting method makes it possible to capture all transactions carried out by the project and to produce standard accounting statements such as the balance and general ledger, the interim monthly financial statements (results) (balance sheet) and the annual financial statements required by OHADA (i.e. the balance sheet, the operating account and the supply and use table). The internal control of programme components to ensure the transparent, traceable and proper conduct of activities will be based on the project agreements and evaluation documents, as well as on the administrative and financial procedures manual that will be developed. In addition to the

procedures manual, a financial controller will be appointed for each national and regional component to strengthen assurances regarding compliance with procedures.

4.1.9 Disbursements: Bank disbursements for all PIDACC components will be made using three methods: the reimbursement, direct payment, and revolving fund or special account. The Bank will be required to offer programme staff training on disbursement rules and procedures during the launch mission. Regarding the special account method, the Borrower will open at the Central Bank of each country or in an approved commercial bank, accounts to receive the resources of the ADF grant, ADF loan, the GCF grant and the EU PAGODA grant. Côte d'Ivoire will open an additional account to receive SFC/FIP loan resources, while Burkina Faso will open an additional account for the GEF grant. Each of these special accounts will be backed by a sub-account opened in a commercial bank acceptable to the Bank for use in the day-to-day operation (staff salaries, small purchases and minor works and services, etc.) of the programme according to the country's regulations. The direct payment method will cover works expenditure, as well as other services provided by suppliers and consultants, including accounts auditing. Disbursements from counterpart funds will be made according to national procedures and in line with the provisions in force.

4.1.10 Audit: In accordance with the Bank's reporting requirements, a financial and accounting audit will be conducted at the end of each financial year by an independent and qualified external auditor. Annual PIDACC/BN audits will be carried out by independent audit firms acceptable to the Bank, recruited for a period of one year renewable, depending on the quality of its services and over a period not exceeding three accounting years. The terms of reference of the audits will be prepared by the Borrower and reviewed by the Bank prior to their release. The project shall forward its audit reports to the Bank latest six (6) months following the end of the audited financial year.

4.2. Monitoring

4.2.1 The programme's monitoring and evaluation mechanism will be set up in line with the programme's organisational structure, and should integrate into the NBA overall monitoring and evaluation system. It will comprise the Regional Steering Committee, National Steering Committees, the SFNs, the Regional Coordination Unit, National Coordination Units, national entities in charge of the environment, Central and Regional Directorates (water, forest, livestock, fisheries, IWRM, etc.), operational technical structures in the programme area, regional and national coordination of users of the natural resources of the Niger Basin, and beneficiaries. An expert in charge of PIDACC monitoring and evaluation will be provided to each Coordination Unit. The NBA Technical Director and DFS Coordinators perform the monitoring function on behalf of the NBA and report to the PIDACC Regional Steering Committee. The Governments and the Bank will ensure close monitoring throughout the programme implementation phase. Joint supervision, monitoring and mid-term review missions will be conducted by the Bank and the NBA during programme implementation. A monitoring and evaluation manual will be prepared at the start of the programme, and will identify the relevant indicators as well as the monitoring procedures to be implemented in line with the NBA monitoring and evaluation system.

4.2.2 The programme will adopt two types of monitoring: internal and external. Internal monitoring will be carried out through the programme coordination, based on the dashboards developed for that purpose. Annual work plans and budgets (AWPBs), quarterly and annual progress reports will be produced. Socio-economic surveys and field measurement campaigns will need to be conducted at country level, based on defined intervals, to inform performance

and impact indicators. At the start of the programme, a baseline will be established with gender-disaggregated data to inform the initial level of the key indicators to be monitored. Moreover, the system will be participatory and will provide relevant information regularly on performance and impact indicators, as well as on the implementation of planned activities.

4.2.3 External monitoring will focus on programme impacts, outcomes and outputs, with a view to meeting PIDACC objectives. The information collected through monitoring and evaluation will help to provide inputs for knowledge-building activities, identify and share best practice, pinpoint issues and constraints, and promote continuous improvement within the PIDACC context. The programme will produce periodic monitoring and evaluation reports for review by the CRP, CNPs, coordination units, CTRS, SFNs and NBA. A harmonised monitoring and evaluation system for the programme will be developed under the guidance of the NBA. An implementation manual will also be prepared at national level for the operationalisation of logical framework indicators and the definition of the collection, recovery, processing, and reporting channels. The same will apply for the choice of actors and partners involved in the implementation.

The project implementation schedule is presented in Table 4.7 below.

Table 4.1
Implementation and Supervision Schedule

No.	ACTIVITIES	ENTITIES RESPONSIBLE	DEADLINE
1	Loan and grant approval	FVC/FIP/Bank	November 2018
2	Signing of agreements (loans and grants)	Government/Bank	January 2019
3	Implementation of loan agreements	Government	April 2019
3	Fulfilment of conditions precedent to first disbursement	Government	April 2019
4	First Disbursement	Government/Bank	May 2019
5	Programme launch	Executing Agency	May 2019
6	CAD/DCR launch	Executing Agency	May 2019
7	Start of works and services	Service Providers / Enterprises	September 2019
8	Midterm review	Government/Bank	September 2021
9	Completion report	Government/Bank	September 2024
10	Completion of activities	Executing Agency	December 2024
11	Project closure	Government/Bank	December 2025

4.3 Governance

The NBA has scored major achievements, notably through the normal operation of management organs, the regular maintenance of statutory bodies and the periodic conduct of financial and accounting audits. An institutional and organisational audit is underway to improve institutional performance at both the regional to country level. At the country level, efforts still need to be made to develop and implement appropriate instruments for risk management, and especially in the execution of significant public investments to strengthen resilience to climate change. The project will enable the NBA to continue and enhance good natural resource governance. It will promote the establishment of innovative governance methods for integrated management and equitable access to natural resources (pastures, water points, farmlands, etc.). Local natural resource management agreements will restore balance and complementarities within the target rural communities under the programme. In addition, the project will have a positive knock-on effect on procurement in the project's target countries. Thus, during project implementation, national procedures will be used for national procurement of goods and works. An action plan is proposed in the annexes of each PIDACC component for managing governance-related risks.

In the context of PIDACC's implementation, there is a need to strengthen local institutions and improve citizen control through better involvement of civil society and producer organisations.

4.4. Sustainability

4.4.1 The sustainability of programme achievements depends on four main factors: (i) the level of stakeholder participation in the entire planning and implementation process; (ii) the quality of works and equipment that will be provided to the beneficiaries; (iii) the degree of ownership of investments, and adaptation best practices by the communities and direct beneficiaries; (iv) and the functionality and effectiveness of management committees and management entities. Sustainability is guaranteed by: (a) participatory approaches based on consultation and local decision-making structures; (b) the strong participation of beneficiaries in the conduct of activities; (c) capacity building support for municipalities and community organisations; (d) project activities aimed at enhancing the sustainability of farming systems; and (e) the establishment of the Climate Change Regional Adaptation Fund, which will sustainably finance actions to preserve the Basin's natural resources and ecosystems. Therefore, the key instrument of the programme's exit strategy is the establishment of an environmental services payment (ESP) mechanism for the protection of ecosystems and natural resources, which will be financed with the resources of the Regional Fund for Adaptation to Climate Change. The Regional Fund will be financed by the royalties that will be paid by the major users of water (extractive industries, hydropower dams, irrigated areas, major cities along the river, etc.) and climate funds.

4.4.2 All physical investments under the programme will be made at the request of the communities, which will be organised into sub-basin committees, site subcommittees and cooperatives. The communities will be the owners of the sub-projects, and will contribute 10-20% to their implementation in kind. In addition, they will propose a use and maintenance plan aimed at ensuring the sustainability of investments. This approach was tested as part of the Silting Control Programme (SCP) and 10 years later, it shows sustained results on the ground. At the level of each infrastructure, a management and maintenance committee will be set up. The infrastructure will be attached to the municipalities, which will transfer their management to the committees according to specifications and through a fee system. Municipalities will be responsible for infrastructure maintenance, while the communities will provide routine maintenance, including soil/water conservation (SWC) and soil protection/restoration (SPR) works carried out on infrastructure in the watershed. Heavy-duty maintenance works will be eligible for funding from the Regional Climate Change Adaptation Fund (FRACC), which will be financed by energy producers on the river, major cities, irrigated areas, etc. The feasibility study on FRACC and ESP is already in progress and these two entities will be operational in PIDACC's fourth year.

4.5 Risk Management

The main potential risks that PIDACC's implementation may face and their mitigation measures are given in the table below:

No,	Potential Risks	Level	Mitigation Measures
1	Some States of the Basin have been facing security problems in recent years.	High	The safest sites were selected for multipurpose infrastructure. It was agreed that each country will take the necessary steps to secure the project sites. At the time of the mid-term review or at any period, the activities may be moved to other sites, if need be, in order to concentrate them in the safest areas to ensure completion of the programme. It is worth noting that implementing the programme should also help to improve the security conditions by reviving economic activities in the areas concerned.
2	Climate risks, particularly recurring droughts that could delay or reduce the expected positive outcomes.	High	The programme will systematically include the dissemination of climate-smart agriculture (CSA) and REDD+ technologies and practices
3	Land conflicts	High	Outreach and facilitation activities will be carried out using existing coordination and consultation mechanisms. Local agreements voluntarily entered into by local residents will allow for better management of potential conflicts in the agricultural, forestry, and pastoral space. It is also expected that all communities and socio-professional categories representing the interests of stakeholder groups, particularly women's groups, will be represented on village natural resource management committees.
4	Failure to use resources due to the multiplicity of donors and funding instruments	Moderate	Separate funding arrangements for countries and reallocation of resources earmarked for the entire Basin between countries or regions during the mid-term review or any at other time, if need be.
5	Inadequate coordination of the activities of the 9 countries	Moderate	Empowerment of and capacity building for the NBA, and empowerment of National Coordination Units.

4.6 Knowledge Building

4.6.1 The community capacity building sub-component of the programme will capitalise on the outcomes of development and extension research, and of similar climate change adaptation projects. To that end, future plans include the development and dissemination of guides on best practice and climate-smart agriculture (CSA) technologies. PIDACC, particularly through the value chains approach, strengthened by the CSA system, will contribute to the dissemination of resilient technologies and climate change (CC) adaptation practises for the benefit of the various actors, especially farmers, thanks in particular to the advisory support and organisational services. The programme will generate other knowledge products, including: (i) climate risk and vulnerability assessment at the local level; (ii) operationalisation of a regional early warning system for floods and severe low-water levels; (iii) strategies for climate data integration in the management of agricultural, silvicultural and pastoral activities; (iv) and operationalisation of an environmental service payment (ESP) system mechanism for the sustainable management of the Basin's natural resources, etc.

4.6.2 The interaction of different actors on climate issues will be an excellent platform for sharing knowledge and experience on community capacity building. The lessons learned will be disseminated nationally and internationally through the periodic meetings of NBA countries, and will be capitalised for the replication of the PIDACC intervention strategy at the national level and in watersheds prone to climatic hazards.

V. LEGAL FRAMEWORK AND AUTHORITY

5.1 Legal Instruments

The legal instruments for the programme will be as follows: (i) ADF loan agreements to be executed between the ADF and respectively with Cameroon Côte d'Ivoire, Guinea, Mali and Nigeria; (ii) ADF protocols of agreement to be executed between the ADF and respectively with Benin, Burkina Faso, Guinea, Mali, Niger, and Chad; (iii) GCF loan agreements to be executed between the Bank (as Accredited Entity) and respectively with Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Guinea, Mali, Niger, and Nigeria; (iv) GCF protocols of agreement to be executed respectively between the Bank (as Accredited Entity) with each of the nine (9) countries and the NBA; (v) EU-AfIF (PAGODA grant) protocols of agreement to be executed between the Bank (as administrator of EU-AfIF (PAGODA)) and each of the nine countries; (vi) GEF protocols of agreement to be executed respectively between the Bank (as Executing Agency) and Burkina Faso, and the NBA; (vii) a SCF/FIP loan agreement and a SCF/FIP protocol of agreement to be executed between the Bank (as Implementing Entity) and Côte d'Ivoire; (viii) a Funded Activity Agreement (FAA) between the GCF and the Bank (as Accredited Entity) which lays out the legal arrangements necessary in order for the funding to be transferred for implementation of the Project; and (ix) a Delegation Agreement between the EU-AfIF and the Bank (as administrator of EU-AfIF grants) defining the activities entrusted to the Bank by AfIF for its implementation under the Project.

However, it is worth noting that all the contractual obligations of the Bank, under the Framework Agreement concluded between the Bank and the EC (PAGODA); the General Conditions of the PAGODA; and the Delegation Agreement with regard to the project above-mentioned (inclusive of its annexes, in particular on financial management; disbursement; financial audit and accounting; and visibility and communication, etc.) shall be fully transferred to each concerned country under the relevant EU-AfIF Grant Agreement.

5.2 Conditions Associated with Bank and Fund Intervention

5.2.1 Conditions precedent to effectiveness of the grants and loans: (i) The effectiveness of the loan agreements shall be subject to the fulfilment, by the Borrowers, of the conditions provided for in Section 12.01 of the General Conditions Applicable to Loan Agreements and Guarantee Agreements of the Fund (Sovereign Entities). The ADF, GEF, GCF, SCF (FIP) and EU-AfIF protocols of agreement will become effective on the date of their signature.

5.2.2 Conditions precedent to the first disbursement of the grants and loans: The obligation for the Bank and the Fund to make the first disbursement of the grants and loans shall be subject to the effectiveness of the protocols of agreement and loan agreements, in accordance with the provisions of paragraph 5.2.1 above, and evidence that the Donor or Borrower has fulfilled the following conditions:

- (i) The submission of evidence of a copy of the signed order setting up the programme coordination unit, in form and substance acceptable to the Fund; and
- (ii) The submission of evidence of the recruitment of a Financial Management expert; and the appointment of a Coordinator for the Programme Coordination Unit (PCU) with qualifications and terms of reference acceptable to the Fund.

5.2.3 Institutional Arrangements: The Borrowers / Donnes shall:

- (i) Establish and maintain a Programme Coordination Unit (PCU) within the Executing Agency throughout the life of the Programme;
- (ii) No later than 30 April 2019, provide evidence of the setting up of a Regional Programme Coordination Unit (RPCU);
- (iii) No later than 30 September 2019, provide evidence of the recruitment of a Regional

Coordinator, Climate Change Expert, Monitoring and Evaluation Expert; Integrated Water Resources Management Expert, Communication, Mobilisation and Gender Expert, Financial Management Expert, and Procurement Expert within the RPCU with qualifications and terms of reference acceptable to the Fund;

- (iv) No later than 30 April 2019, provide evidence of (i) the appointment of a Water and Forestry Engineer, a Rural Engineer, a Gender and Social Development Expert, and a Monitoring and Evaluation Expert; and (ii) the recruitment of a Procurement Expert and support staff for the PCU, with qualifications and terms of reference acceptable to the Fund.
- (v) No later than 30 June 2019, provide evidence of the setting up of a National Steering Committee chaired by the Secretary General of the Executing Agency whose responsibility would be to ensure the achievement of the Programme's objectives;
- (vi) No later than 30 September 2019, provide evidence of the setting up a Regional Technical Monitoring Committee and a Regional Approval Committee in each region, responsible for close monitoring of the Programme; and
- (vii) No later than 31 December 2022, evidence of the operationalisation of a Regional Climate Change Adaptation Fund (FRACC) and a payment mechanism for environmental services in the Niger Basin.

5.2.4 Other Undertakings

- (a) No later than 30 September 2019, submit to the Fund a Gender Action Plan, the terms of which shall have been deemed acceptable to the Fund;
- (b) No later than 30 September 2019, submit to the Fund the Administrative and Financial Procedures Manual, the terms of which shall have been deemed acceptable to the Fund;

- (c) No later than 30 September 2019, submit to the Fund the Environmental and Social Management Plan (ESMP) in accordance with the national regulations, the terms of which shall have been deemed acceptable to the Fund;
- (d) No later than 30 September 2019, submit copies of the agreements signed with the Technical Departments, the terms of which shall have been deemed acceptable to the Fund; and
- (e) Ensure the availability each year of its contribution to programme financing by including in the Appropriations Act the amount of funding required.

5.2.5. **Environmental and Social Safeguards:** The Borrowers/Donees undertake to implement the PIDACC Environmental and Social Management Framework.

5.3. **Compliance with Bank policies:** The programme is in line with the Bank’s Ten-Year Strategy (2013-2022) and applicable Bank Group policies.

VI. RECOMMENDATION

Management recommends that:

- (i) The Board of Directors of the Bank approve that the procurement of goods, works and services financed from the resources of the EU-AfIF, GEF, GCF and SCF be opened to all countries including those that are non-member states of the Bank ;
- (ii) The Board of Directors of the Bank approve the implementation by the Bank of GEF-funded activities; and
- (iii) The Board of Directors of the Bank and the Fund approve, as the case may be, the ADF, GCF, EU, and SCF financing referred to above, for this programme, and under the conditions set forth in this report.

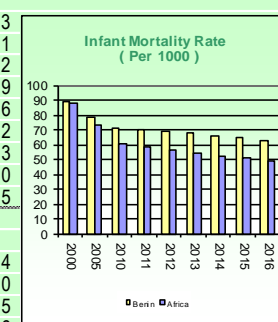
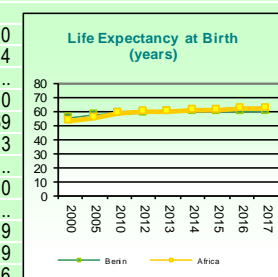
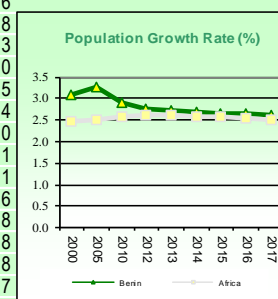
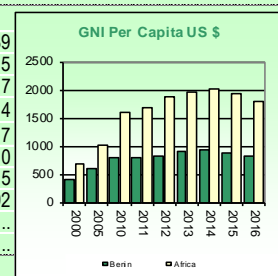
Country	ADF Grant UA Million	ADF Loan UA Million	GCF Grant USD Million	GCF Loan USD Million	EU Grant EUR Million	GEF Grant USD Million	SCF Grant USD Million	SCF Loan USD Million
Benin	6.0		4.7	1.0	1.29			
Burkina Faso	2.0		4.9	2.0	1.34	2.41		
Cameroon		6.0	4.8	1.0	1.29			
Côte d’Ivoire		5.0	5.3	1.0	1.42		2.64	6.36
Guinea	4.5	3.0	4.65	1.0	1.33			
Mali	4.5	3.0	7.83	1.0	1.99			
Niger	7.5		6.66	1.0	1.97			
Nigeria		6.0	10.12	2.0	2.83			
Chad	7.5		4.29		1.14			
NBA			4.55			9.60		

APPENDIX I: Comparative Socio-economic Indicators of NBA Countries

Benin

COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Benin	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)	2017	115	30,067	80,386	53,939
Total Population (millions)	2017	11.5	1,184.5	5,945.0	1,401.5
Urban Population (% of Total)	2017	44.8	39.7	47.0	80.7
Population Density (per Km ²)	2017	101.6	40.3	78.5	25.4
GNI per Capita (US \$)	2016	820	2 045	4 226	38 317
Labor Force Participation* - Total (%)	2017	71.3	66.3	67.7	72.0
Labor Force Participation** - Female (%)	2017	69.8	56.5	53.0	64.5
Sex Ratio (per 100 female)	2017	99.6	0.801	0.506	0.792
Human Develop. Index (Rank among 187 countries)	2015	167	...	...	...
Popul. Living Below \$ 1.90 a Day (% of Population)	2015	49.5	39.6	17.0	...
Demographic Indicators					
Population Growth Rate - Total (%)	2017	2.6	2.6	1.3	0.6
Population Growth Rate - Urban (%)	2017	3.6	3.6	2.6	0.8
Population < 15 years (%)	2017	41.6	41.0	28.3	17.3
Population 15-24 years (%)	2017	20.1	3.5	6.2	16.0
Population >= 65 years (%)	2017	2.9	80.1	54.6	50.5
Dependency Ratio (%)	2017	80.3	100.1	102.8	97.4
Female Population 15-49 years (% of total population)	2017	24.2	24.0	25.8	23.0
Life Expectancy at Birth - Total (years)	2017	60.2	61.2	68.9	79.1
Life Expectancy at Birth - Female (years)	2017	61.7	62.6	70.8	82.1
Crude Birth Rate (per 1,000)	2017	34.8	34.8	21.0	11.6
Crude Death Rate (per 1,000)	2017	9.0	9.3	7.7	8.8
Infant Mortality Rate (per 1,000)	2016	63.1	52.2	35.2	5.8
Child Mortality Rate (per 1,000)	2016	97.6	75.5	47.3	6.8
Total Fertility Rate (per woman)	2017	4.5	4.6	2.6	1.7
Maternal Mortality Rate (per 100,000)	2015	405.0	411.3	230.0	22.0
Women Using Contraception (%)	2017	18.8	35.3	62.1	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2016	15.3	46.9	118.1	308.0
Nurses and midwives (per 100,000 people)	2016	59.8	133.4	202.9	857.4
Births attended by Trained Health Personnel (%)	2014	77.2	50.6	67.7	...
Access to Safe Water (% of Population)	2015	77.9	71.6	89.1	99.0
Access to Sanitation (% of Population)	2015	19.7	51.3	57	69
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2016	1.0	39.4	60.8	96.3
Incidence of Tuberculosis (per 100,000)	2016	59.0	3.8	1.2	...
Child Immunization Against Tuberculosis (%)	2016	96.0	245.9	149.0	22.0
Child Immunization Against Measles (%)	2016	74.0	84.1	90.0	...
Underweight Children (% of children under 5 years)	2014	18.0	76.0	82.7	93.9
Prevalence of stunting	2014	34.0	20.8	17.0	0.9
Prevalence of undernourishment (% of pop.)	2015	10.3	2 621	2 335	3 416
Public Expenditure on Health (as % of GDP)	2014	2.3	2.7	3.1	7.3
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2015	132.5	106.4	109.4	101.3
Primary School - Female	2015	127.6	102.6	107.6	101.1
Secondary School - Total	2015	58.8	54.6	69.0	100.2
Secondary School - Female	2015	48.9	51.4	67.7	99.9
Primary School Female Teaching Staff (% of Total)	2015	23.9	45.1	58.1	81.6
Adult literacy Rate - Total (%)	2012	32.9	61.8	80.4	99.2
Adult literacy Rate - Male (%)	2012	45.0	70.7	85.9	99.3
Adult literacy Rate - Female (%)	2012	22.1	53.4	75.2	99.0
Percentage of GDP Spent on Education	2015	4.4	5.3	4.3	5.5
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2015	23.9	8.6	11.9	9.4
Agricultural Land (as % of land area)	2015	33.3	43.2	43.4	30.0
Forest (As % of Land Area)	2015	38.2	23.3	28.0	34.5
Per Capita CO2 Emissions (metric tons)	2014	0.6	1.1	3.0	11.6



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

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UNAIDS; UNSD; WHO, UNICEF, UNDP; Country Reports.

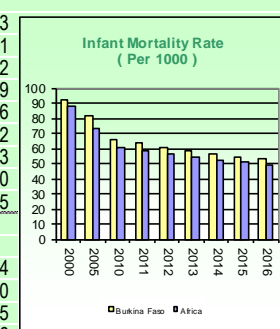
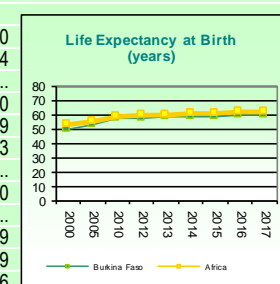
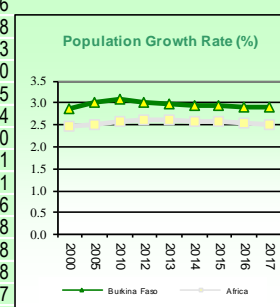
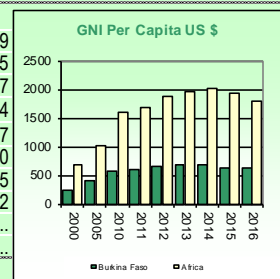
Note : n.a. : Not Applicable ; ... : Data Not Available. * Labor force participation rate, total (% of total population ages 15+)

** Labor force participation rate, female (% of female population ages 15+)

Burkina Faso

COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Burkina Faso	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km²)	2017	274	30,067	80,386	53,939
Total Population (millions)	2017	19.2	1,184.5	5,945.0	1,401.5
Urban Population (% of Total)	2017	31.1	39.7	47.0	80.7
Population Density (per Km²)	2017	70.1	40.3	78.5	25.4
GNI per Capita (US \$)	2016	620	2 045	4 226	38 317
Labor Force Participation * - Total (%)	2017	83.4	66.3	67.7	72.0
Labor Force Participation ** - Female (%)	2017	76.5	56.5	53.0	64.5
Sex Ratio (per 100 female)	2017	98.7	0.801	0.506	0.792
Human Develop. Index (Rank among 187 countries)	2015	185	...	...	...
Popul. Living Below \$ 1.90 a Day (% of Population)	2014	43.7	39.6	17.0	...
Demographic Indicators					
Population Growth Rate - Total (%)	2017	2.9	2.6	1.3	0.6
Population Growth Rate - Urban (%)	2017	5.6	3.6	2.6	0.8
Population < 15 years (%)	2017	45.1	41.0	28.3	17.3
Population 15-24 years (%)	2017	20.0	3.5	6.2	16.0
Population ≥ 65 years (%)	2017	2.4	80.1	54.6	50.5
Dependency Ratio (%)	2017	90.6	100.1	102.8	97.4
Female Population 15-49 years (% of total population)	2017	23.2	24.0	25.8	23.0
Life Expectancy at Birth - Total (years)	2017	59.7	61.2	68.9	79.1
Life Expectancy at Birth - Female (years)	2017	61.0	62.6	70.8	82.1
Crude Birth Rate (per 1,000)	2017	38.6	34.8	21.0	11.6
Crude Death Rate (per 1,000)	2017	8.9	9.3	7.7	8.8
Infant Mortality Rate (per 1,000)	2016	52.7	52.2	35.2	5.8
Child Mortality Rate (per 1,000)	2016	84.6	75.5	47.3	6.8
Total Fertility Rate (per woman)	2017	5.3	4.6	2.6	1.7
Maternal Mortality Rate (per 100,000)	2015	371.0	411.3	230.0	22.0
Women Using Contraception (%)	2017	24.3	35.3	62.1	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2012	4.7	46.9	118.1	308.0
Nurses and midwives (per 100,000 people)	2012	63.0	133.4	202.9	857.4
Births attended by Trained Health Personnel (%)	2010	65.9	50.6	67.7	...
Access to Safe Water (% of Population)	2015	82.3	71.6	89.1	99.0
Access to Sanitation (% of Population)	2015	19.7	51.3	57	69
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2016	0.8	39.4	60.8	96.3
Incidence of Tuberculosis (per 100,000)	2016	51.0	3.8	1.2	...
Child Immunization Against Tuberculosis (%)	2016	98.0	245.9	149.0	22.0
Child Immunization Against Measles (%)	2016	88.0	84.1	90.0	...
Underweight Children (% of children under 5 years)	2010	26.2	76.0	82.7	93.9
Prevalence of stunting	2010	35.1	20.8	17.0	0.9
Prevalence of undernourishment (% of pop.)	2015	20.2	2 621	2 335	3 416
Public Expenditure on Health (as % of GDP)	2014	2.6	2.7	3.1	7.3
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2016	91.1	106.4	109.4	101.3
Primary School - Female	2016	90.1	102.6	107.6	101.1
Secondary School - Total	2016	35.8	54.6	69.0	100.2
Secondary School - Female	2016	34.9	51.4	67.7	99.9
Primary School Female Teaching Staff (% of Total)	2016	45.8	45.1	58.1	81.6
Adult literacy Rate - Total (%)	2014	34.6	61.8	80.4	99.2
Adult literacy Rate - Male (%)	2014	44.4	70.7	85.9	99.3
Adult literacy Rate - Female (%)	2014	26.2	53.4	75.2	99.0
Percentage of GDP Spent on Education	2015	4.2	5.3	4.3	5.5
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2015	21.9	8.6	11.9	9.4
Agricultural Land (as % of land area)	2015	44.2	43.2	43.4	30.0
Forest (As % of Land Area)	2015	19.6	23.3	28.0	34.5
Per Capita CO2 Emissions (metric tons)	2014	0.2	1.1	3.0	11.6



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

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UNAIDS; UNSD; WHO, UNICEF, UNDP; Country Reports.

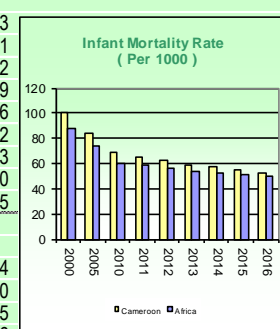
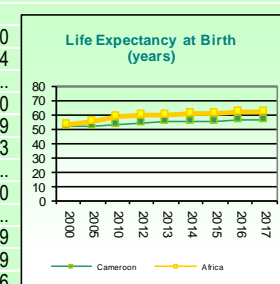
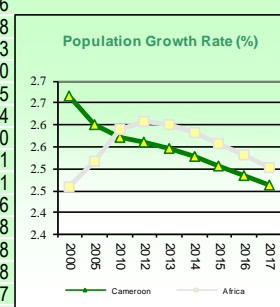
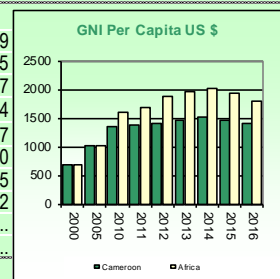
Note : n.a. : Not Applicable ; ... : Data Not Available. * Labor force participation rate, total (% of total population ages 15+)

** Labor force participation rate, female (% of female population ages 15+)

Cameroon

COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Cameroon	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)	2017	475	30,067	80,386	53,939
Total Population (millions)	2017	24.5	1,184.5	5,945.0	1,401.5
Urban Population (% of Total)	2017	55.6	39.7	47.0	80.7
Population Density (per Km ²)	2017	51.9	40.3	78.5	25.4
GNI per Capita (US \$)	2016	1 400	2 045	4 226	38 317
Labor Force Participation * - Total (%)	2017	76.3	66.3	67.7	72.0
Labor Force Participation ** - Female (%)	2017	71.3	56.5	53.0	64.5
Sex Ratio (per 100 female)	2017	100.0	0.801	0.506	0.792
Human Develop. Index (Rank among 187 countries)	2015	153	...	...	...
Popul. Living Below \$ 1.90 a Day (% of Population)	2014	24.0	39.6	17.0	...
Demographic Indicators					
Population Growth Rate - Total (%)	2017	2.5	2.6	1.3	0.6
Population Growth Rate - Urban (%)	2017	3.5	3.6	2.6	0.8
Population < 15 years (%)	2017	42.1	41.0	28.3	17.3
Population 15-24 years (%)	2017	20.2	3.5	6.2	16.0
Population >= 65 years (%)	2017	3.2	80.1	54.6	50.5
Dependency Ratio (%)	2017	82.8	100.1	102.8	97.4
Female Population 15-49 years (% of total population)	2017	24.1	24.0	25.8	23.0
Life Expectancy at Birth - Total (years)	2017	56.8	61.2	68.9	79.1
Life Expectancy at Birth - Female (years)	2017	58.0	62.6	70.8	82.1
Crude Birth Rate (per 1,000)	2017	35.2	34.8	21.0	11.6
Crude Death Rate (per 1,000)	2017	10.7	9.3	7.7	8.8
Infant Mortality Rate (per 1,000)	2016	52.8	52.2	35.2	5.8
Child Mortality Rate (per 1,000)	2016	79.7	75.5	47.3	6.8
Total Fertility Rate (per woman)	2017	4.5	4.6	2.6	1.7
Maternal Mortality Rate (per 100,000)	2015	596.0	411.3	230.0	22.0
Women Using Contraception (%)	2017	32.8	35.3	62.1	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2010	8.3	46.9	118.1	308.0
Nurses and midwives (per 100,000 people)	2010	52.0	133.4	202.9	857.4
Births attended by Trained Health Personnel (%)	2013	92.3	50.6	67.7	...
Access to Safe Water (% of Population)	2015	75.6	71.6	89.1	99.0
Access to Sanitation (% of Population)	2015	45.8	51.3	57	69
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2016	3.8	39.4	60.8	96.3
Incidence of Tuberculosis (per 100,000)	2016	203.0	3.8	1.2	...
Child Immunization Against Tuberculosis (%)	2016	70.0	245.9	149.0	22.0
Child Immunization Against Measles (%)	2016	78.0	84.1	90.0	...
Underweight Children (% of children under 5 years)	2014	14.8	76.0	82.7	93.9
Prevalence of stunting	2014	31.7	20.8	17.0	0.9
Prevalence of undernourishment (% of pop.)	2015	7.9	2 621	2 335	3 416
Public Expenditure on Health (as % of GDP)	2014	0.9	2.7	3.1	7.3
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2016	119.2	106.4	109.4	101.3
Primary School - Female	2016	112.9	102.6	107.6	101.1
Secondary School - Total	2016	61.8	54.6	69.0	100.2
Secondary School - Female	2016	57.1	51.4	67.7	99.9
Primary School Female Teaching Staff (% of Total)	2016	54.5	45.1	58.1	81.6
Adult literacy Rate - Total (%)	2010	71.3	61.8	80.4	99.2
Adult literacy Rate - Male (%)	2010	78.3	70.7	85.9	99.3
Adult literacy Rate - Female (%)	2010	64.8	53.4	75.2	99.0
Percentage of GDP Spent on Education	2013	2.8	5.3	4.3	5.5
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2015	13.1	8.6	11.9	9.4
Agricultural Land (as % of land area)	2015	20.6	43.2	43.4	30.0
Forest (As % of Land Area)	2015	39.8	23.3	28.0	34.5
Per Capita CO2 Emissions (metric tons)	2014	0.3	1.1	3.0	11.6



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

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UNAIDS; UNSD; WHO, UNICEF, UNDP; Country Reports.

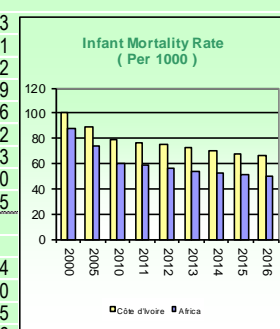
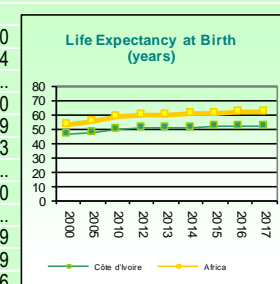
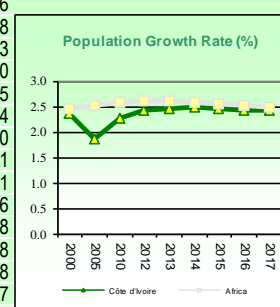
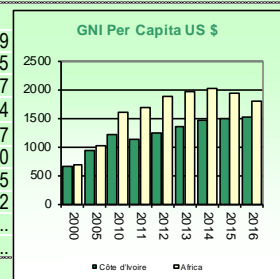
Note : n.a. : Not Applicable ; ... : Data Not Available. * Labor force participation rate, total (% of total population ages 15+)

** Labor force participation rate, female (% of female population ages 15+)

Côte d'Ivoire

COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Côte d'Ivoire	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)	2017	322	30,067	80,386	53,939
Total Population (millions)	2017	23.8	1,184.5	5,945.0	1,401.5
Urban Population (% of Total)	2017	51.9	39.7	47.0	80.7
Population Density (per Km ²)	2017	74.9	40.3	78.5	25.4
GNI per Capita (US \$)	2016	1 520	2 045	4 226	38 317
Labor Force Participation * - Total (%)	2017	67.1	66.3	67.7	72.0
Labor Force Participation ** - Female (%)	2017	52.6	56.5	53.0	64.5
Sex Ratio (per 100 female)	2017	103.2	0.801	0.506	0.792
Human Develop. Index (Rank among 187 countries)	2015	171	...	...	...
Popul. Living Below \$ 1.90 a Day (% of Population)	2015	27.9	39.6	17.0	...
Demographic Indicators					
Population Growth Rate - Total (%)	2017	2.4	2.6	1.3	0.6
Population Growth Rate - Urban (%)	2017	3.5	3.6	2.6	0.8
Population < 15 years (%)	2017	42.1	41.0	28.3	17.3
Population 15-24 years (%)	2017	20.4	3.5	6.2	16.0
Population >= 65 years (%)	2017	3.0	80.1	54.6	50.5
Dependency Ratio (%)	2017	82.5	100.1	102.8	97.4
Female Population 15-49 years (% of total population)	2017	23.6	24.0	25.8	23.0
Life Expectancy at Birth - Total (years)	2017	52.6	61.2	68.9	79.1
Life Expectancy at Birth - Female (years)	2017	53.6	62.6	70.8	82.1
Crude Birth Rate (per 1,000)	2017	36.4	34.8	21.0	11.6
Crude Death Rate (per 1,000)	2017	12.9	9.3	7.7	8.8
Infant Mortality Rate (per 1,000)	2016	66.0	52.2	35.2	5.8
Child Mortality Rate (per 1,000)	2016	91.8	75.5	47.3	6.8
Total Fertility Rate (per woman)	2017	4.8	4.6	2.6	1.7
Maternal Mortality Rate (per 100,000)	2015	645.0	411.3	230.0	22.0
Women Using Contraception (%)	2017	20.5	35.3	62.1	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2008	14.3	46.9	118.1	308.0
Nurses and midwives (per 100,000 people)	2008	47.9	133.4	202.9	857.4
Births attended by Trained Health Personnel (%)	2012	59.4	50.6	67.7	...
Access to Safe Water (% of Population)	2015	81.9	71.6	89.1	99.0
Access to Sanitation (% of Population)	2015	22.5	51.3	57	69
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2016	2.7	39.4	60.8	96.3
Incidence of Tuberculosis (per 100,000)	2016	153.0	3.8	1.2	...
Child Immunization Against Tuberculosis (%)	2016	95.0	245.9	149.0	22.0
Child Immunization Against Measles (%)	2016	77.0	84.1	90.0	...
Underweight Children (% of children under 5 years)	2012	15.7	76.0	82.7	93.9
Prevalence of stunting	2012	29.6	20.8	17.0	0.9
Prevalence of undernourishment (% of pop.)	2015	15.4	2 621	2 335	3 416
Public Expenditure on Health (as % of GDP)	2014	1.7	2.7	3.1	7.3
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2016	96.7	106.4	109.4	101.3
Primary School - Female	2016	91.3	102.6	107.6	101.1
Secondary School - Total	2016	46.1	54.6	69.0	100.2
Secondary School - Female	2016	38.8	51.4	67.7	99.9
Primary School Female Teaching Staff (% of Total)	2016	28.0	45.1	58.1	81.6
Adult literacy Rate - Total (%)	2014	43.9	61.8	80.4	99.2
Adult literacy Rate - Male (%)	2014	50.7	70.7	85.9	99.3
Adult literacy Rate - Female (%)	2014	36.8	53.4	75.2	99.0
Percentage of GDP Spent on Education	2015	4.8	5.3	4.3	5.5
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2015	9.1	8.6	11.9	9.4
Agricultural Land (as % of land area)	2015	64.8	43.2	43.4	30.0
Forest (As % of Land Area)	2015	32.7	23.3	28.0	34.5
Per Capita CO2 Emissions (metric tons)	2014	0.5	1.1	3.0	11.6



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

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UNAIDS; UNSD; WHO, UNICEF, UNDP; Country Reports.

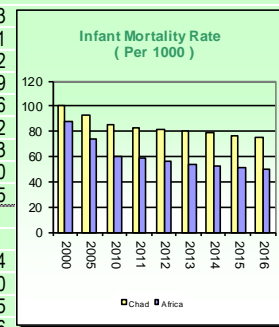
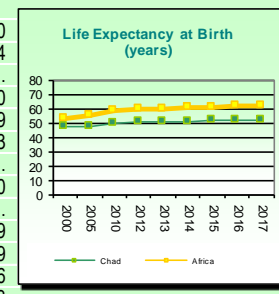
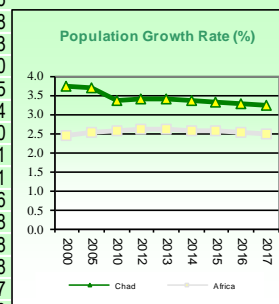
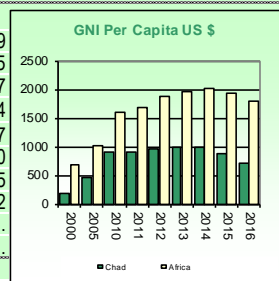
Note : n.a. : Not Applicable ; ... : Data Not Available. * Labor force participation rate, total (% of total population ages 15+)

** Labor force participation rate, female (% of female population ages 15+)

Chad

COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Chad	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)	2017	1,284	30,067	80,386	53,939
Total Population (millions)	2017	15.0	1,184.5	5,945.0	1,401.5
Urban Population (% of Total)	2017	22.0	39.7	47.0	80.7
Population Density (per Km ²)	2017	11.9	40.3	78.5	25.4
GNI per Capita (US \$)	2016	720	2,045	4,226	38,317
Labor Force Participation* - Total (%)	2017	71.6	66.3	67.7	72.0
Labor Force Participation** - Female (%)	2017	64.0	56.5	53.0	64.5
Sex Ratio (per 100 female)	2017	100.3	0.801	0.506	0.792
Human Develop. Index (Rank among 187 countries)	2015	186	...	...	...
Popul. Living Below \$ 1.90 a Day (% of Population)	2011	38.4	39.6	17.0	...
Demographic Indicators					
Population Growth Rate - Total (%)	2017	3.2	2.6	1.3	0.6
Population Growth Rate - Urban (%)	2017	3.7	3.6	2.6	0.8
Population < 15 years (%)	2017	47.3	41.0	28.3	17.3
Population 15-24 years (%)	2017	20.4	3.5	6.2	16.0
Population ≥ 65 years (%)	2017	2.5	80.1	54.6	50.5
Dependency Ratio (%)	2017	99.3	100.1	102.8	97.4
Female Population 15-49 years (% of total population)	2017	22.2	24.0	25.8	23.0
Life Expectancy at Birth - Total (years)	2017	52.4	61.2	68.9	79.1
Life Expectancy at Birth - Female (years)	2017	53.6	62.6	70.8	82.1
Crude Birth Rate (per 1,000)	2017	43.9	34.8	21.0	11.6
Crude Death Rate (per 1,000)	2017	13.3	9.3	7.7	8.8
Infant Mortality Rate (per 1,000)	2016	75.2	52.2	35.2	5.8
Child Mortality Rate (per 1,000)	2016	127.3	75.5	47.3	6.8
Total Fertility Rate (per woman)	2017	5.8	4.6	2.6	1.7
Maternal Mortality Rate (per 100,000)	2015	856.0	411.3	230.0	22.0
Women Using Contraception (%)	2017	6.8	35.3	62.1	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2013	4.4	46.9	118.1	308.0
Nurses and midwives (per 100,000 people)	2013	30.9	133.4	202.9	857.4
Births attended by Trained Health Personnel (%)	2015	20.2	50.6	67.7	...
Access to Safe Water (% of Population)	2015	50.8	71.6	89.1	99.0
Access to Sanitation (% of Population)	2015	12.1	51.3	57	69
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2016	1.3	39.4	60.8	96.3
Incidence of Tuberculosis (per 100,000)	2016	153.0	3.8	1.2	...
Child Immunization Against Tuberculosis (%)	2016	56.0	245.9	149.0	22.0
Child Immunization Against Measles (%)	2016	58.0	84.1	90.0	...
Underweight Children (% of children under 5 years)	2015	28.8	76.0	82.7	93.9
Prevalence of stunting	2015	39.9	20.8	17.0	0.9
Prevalence of undernourishment (% of pop.)	2015	32.5	2,621	2,335	3,416
Public Expenditure on Health (as % of GDP)	2014	2.0	2.7	3.1	7.3
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2016	88.1	106.4	109.4	101.3
Primary School - Female	2016	77.0	102.6	107.6	101.1
Secondary School - Total	2016	22.7	54.6	69.0	100.2
Secondary School - Female	2016	14.3	51.4	67.7	99.9
Primary School Female Teaching Staff (% of Total)	2012	15.4	45.1	58.1	81.6
Adult literacy Rate - Total (%)	2016	22.3	61.8	80.4	99.2
Adult literacy Rate - Male (%)	2016	31.3	70.7	85.9	99.3
Adult literacy Rate - Female (%)	2016	14.0	53.4	75.2	99.0
Percentage of GDP Spent on Education	2013	2.9	5.3	4.3	5.5
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2015	3.9	8.6	11.9	9.4
Agricultural Land (as % of land area)	2015	39.7	43.2	43.4	30.0
Forest (As % of Land Area)	2015	3.9	23.3	28.0	34.5
Per Capita CO2 Emissions (metric tons)	2014	0.1	1.1	3.0	11.6



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

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UNAIDS; UNSD; WHO, UNICEF, UNDP; Country Reports.

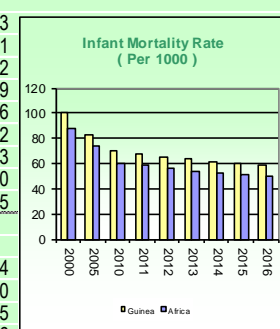
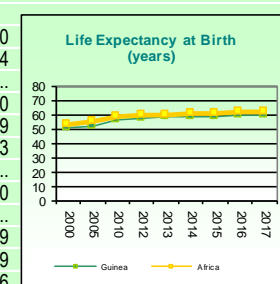
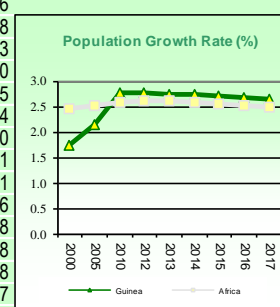
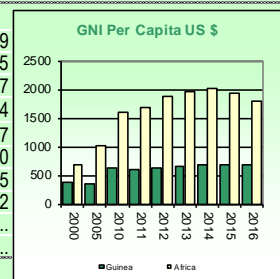
Note : n.a. : Not Applicable ; ... : Data Not Available. * Labor force participation rate, total (% of total population ages 15+)

** Labor force participation rate, female (% of female population ages 15+)

Guinea

COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Guinea	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)	2017	246	30,067	80,386	53,939
Total Population (millions)	2017	13.3	1,184.5	5,945.0	1,401.5
Urban Population (% of Total)	2017	37.2	39.7	47.0	80.7
Population Density (per Km ²)	2017	54.1	40.3	78.5	25.4
GNI per Capita (US \$)	2016	670	2 045	4 226	38 317
Labor Force Participation * - Total (%)	2017	82.3	66.3	67.7	72.0
Labor Force Participation ** - Female (%)	2017	79.4	56.5	53.0	64.5
Sex Ratio (per 100 female)	2017	100.7	0.801	0.506	0.792
Human Develop. Index (Rank among 187 countries)	2015	183	...	...	...
Popul. Living Below \$ 1.90 a Day (% of Population)	2012	35.3	39.6	17.0	...
Demographic Indicators					
Population Growth Rate - Total (%)	2017	2.7	2.6	1.3	0.6
Population Growth Rate - Urban (%)	2017	3.8	3.6	2.6	0.8
Population < 15 years (%)	2017	42.2	41.0	28.3	17.3
Population 15-24 years (%)	2017	19.9	3.5	6.2	16.0
Population >= 65 years (%)	2017	3.1	80.1	54.6	50.5
Dependency Ratio (%)	2017	82.9	100.1	102.8	97.4
Female Population 15-49 years (% of total population)	2017	23.4	24.0	25.8	23.0
Life Expectancy at Birth - Total (years)	2017	60.0	61.2	68.9	79.1
Life Expectancy at Birth - Female (years)	2017	60.5	62.6	70.8	82.1
Crude Birth Rate (per 1,000)	2017	35.5	34.8	21.0	11.6
Crude Death Rate (per 1,000)	2017	9.2	9.3	7.7	8.8
Infant Mortality Rate (per 1,000)	2016	58.3	52.2	35.2	5.8
Child Mortality Rate (per 1,000)	2016	89.0	75.5	47.3	6.8
Total Fertility Rate (per woman)	2017	4.8	4.6	2.6	1.7
Maternal Mortality Rate (per 100,000)	2015	679.0	411.3	230.0	22.0
Women Using Contraception (%)	2017	7.9	35.3	62.1	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2016	7.5	46.9	118.1	308.0
Nurses and midwives (per 100,000 people)	2016	36.8	133.4	202.9	857.4
Births attended by Trained Health Personnel (%)	2012	45.3	50.6	67.7	...
Access to Safe Water (% of Population)	2015	76.8	71.6	89.1	99.0
Access to Sanitation (% of Population)	2015	20.1	51.3	57	69
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2016	1.5	39.4	60.8	96.3
Incidence of Tuberculosis (per 100,000)	2016	176.0	3.8	1.2	...
Child Immunization Against Tuberculosis (%)	2016	72.0	245.9	149.0	22.0
Child Immunization Against Measles (%)	2016	54.0	84.1	90.0	...
Underweight Children (% of children under 5 years)	2012	16.3	76.0	82.7	93.9
Prevalence of stunting	2012	35.8	20.8	17.0	0.9
Prevalence of undernourishment (% of pop.)	2015	17.5	2 621	2 335	3 416
Public Expenditure on Health (as % of GDP)	2014	2.7	2.7	3.1	7.3
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2014	93.9	106.4	109.4	101.3
Primary School - Female	2014	86.1	102.6	107.6	101.1
Secondary School - Total	2014	40.3	54.6	69.0	100.2
Secondary School - Female	2014	31.9	51.4	67.7	99.9
Primary School Female Teaching Staff (% of Total)	2014	30.0	45.1	58.1	81.6
Adult literacy Rate - Total (%)	2014	32.0	61.8	80.4	99.2
Adult literacy Rate - Male (%)	2014	43.6	70.7	85.9	99.3
Adult literacy Rate - Female (%)	2014	22.0	53.4	75.2	99.0
Percentage of GDP Spent on Education	2014	2.4	5.3	4.3	5.5
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2015	12.6	8.6	11.9	9.4
Agricultural Land (as % of land area)	2015	59.0	43.2	43.4	30.0
Forest (As % of Land Area)	2015	25.9	23.3	28.0	34.5
Per Capita CO2 Emissions (metric tons)	2014	0.2	1.1	3.0	11.6



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

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UNAIDS; UNSD; WHO, UNICEF, UNDP; Country Reports.

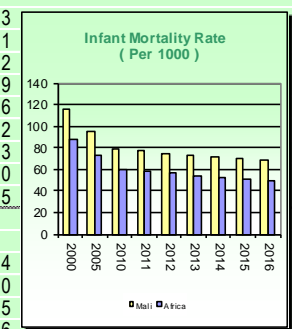
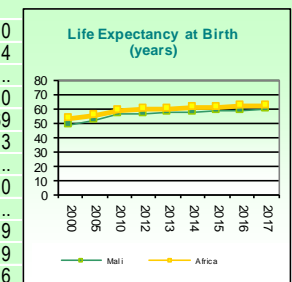
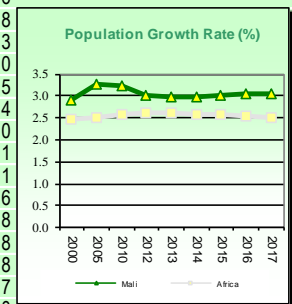
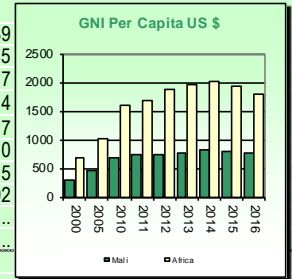
Note : n.a. : Not Applicable ; ... : Data Not Available. * Labor force participation rate, total (% of total population ages 15+)

** Labor force participation rate, female (% of female population ages 15+)

Mali

COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Mali	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)	2017	1,240	30,067	80,386	53,939
Total Population (millions)	2017	18.7	1,184.5	5,945.0	1,401.5
Urban Population (% of Total)	2017	38.4	39.7	47.0	80.7
Population Density (per Km ²)	2017	15.3	40.3	78.5	25.4
GNI per Capita (US \$)	2016	770	2,045	4,226	38,317
Labor Force Participation * - Total (%)	2017	66.4	66.3	67.7	72.0
Labor Force Participation ** - Female (%)	2017	50.5	56.5	53.0	64.5
Sex Ratio (per 100 female)	2017	102.1	0.801	0.506	0.792
Human Develop. Index (Rank among 187 countries)	2015	175	...	...	...
Popul. Living Below \$ 1.90 a Day (% of Population)	2009	49.3	39.6	17.0	...
Demographic Indicators					
Population Growth Rate - Total (%)	2017	3.1	2.6	1.3	0.6
Population Growth Rate - Urban (%)	2017	5.1	3.6	2.6	0.8
Population < 15 years (%)	2017	47.3	41.0	28.3	17.3
Population 15-24 years (%)	2017	19.4	3.5	6.2	16.0
Population ≥ 65 years (%)	2017	2.5	80.1	54.6	50.5
Dependency Ratio (%)	2017	99.3	100.1	102.8	97.4
Female Population 15-49 years (% of total population)	2017	21.9	24.0	25.8	23.0
Life Expectancy at Birth - Total (years)	2017	59.5	61.2	68.9	79.1
Life Expectancy at Birth - Female (years)	2017	59.3	62.6	70.8	82.1
Crude Birth Rate (per 1,000)	2017	41.7	34.8	21.0	11.6
Crude Death Rate (per 1,000)	2017	9.4	9.3	7.7	8.8
Infant Mortality Rate (per 1,000)	2016	68.0	52.2	35.2	5.8
Child Mortality Rate (per 1,000)	2016	110.6	75.5	47.3	6.8
Total Fertility Rate (per woman)	2017	6.0	4.6	2.6	1.7
Maternal Mortality Rate (per 100,000)	2015	587.0	411.3	230.0	22.0
Women Using Contraception (%)	2017	14.4	35.3	62.1	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2010	8.5	46.9	118.1	308.0
Nurses and midwives (per 100,000 people)	2010	44.3	133.4	202.9	857.4
Births attended by Trained Health Personnel (%)	2013	58.6	50.6	67.7	...
Access to Safe Water (% of Population)	2015	77.0	71.6	89.1	99.0
Access to Sanitation (% of Population)	2015	24.7	51.3	57	69
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2016	1.0	39.4	60.8	96.3
Incidence of Tuberculosis (per 100,000)	2016	56.0	3.8	1.2	...
Child Immunization Against Tuberculosis (%)	2016	92.0	245.9	149.0	22.0
Child Immunization Against Measles (%)	2016	75.0	84.1	90.0	...
Underweight Children (% of children under 5 years)	2006	27.9	76.0	82.7	93.9
Prevalence of stunting	2006	38.5	20.8	17.0	0.9
Prevalence of undernourishment (% of pop.)	2015	4.	2 621	2 335	3 416
Public Expenditure on Health (as % of GDP)	2014	1.6	2.7	3.1	7.3
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2016	77.1	106.4	109.4	101.3
Primary School - Female	2016	72.2	102.6	107.6	101.1
Secondary School - Total	2016	42.9	54.6	69.0	100.2
Secondary School - Female	2016	36.6	51.4	67.7	99.9
Primary School Female Teaching Staff (% of Total)	2016	30.4	45.1	58.1	81.6
Adult literacy Rate - Total (%)	2015	33.1	61.8	80.4	99.2
Adult literacy Rate - Male (%)	2015	45.1	70.7	85.9	99.3
Adult literacy Rate - Female (%)	2015	22.2	53.4	75.2	99.0
Percentage of GDP Spent on Education	2015	3.8	5.3	4.3	5.5
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2015	5.3	8.6	11.9	9.4
Agricultural Land (as % of land area)	2015	33.8	43.2	43.4	30.0
Forest (As % of Land Area)	2015	3.9	23.3	28.0	34.5
Per Capita CO2 Emissions (metric tons)	2014	0.1	1.1	3.0	11.6



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

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UNAIDS; UNSD; WHO, UNICEF, UNDP; Country Reports.

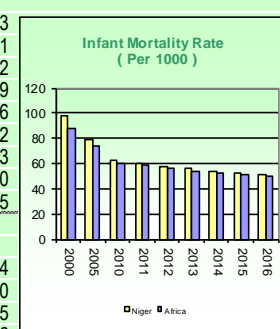
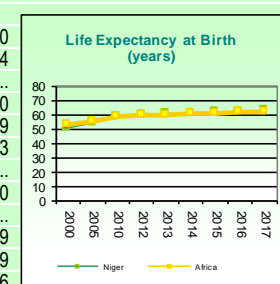
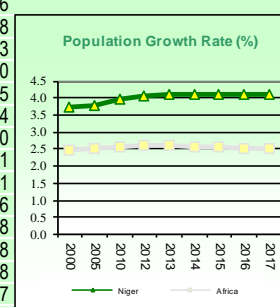
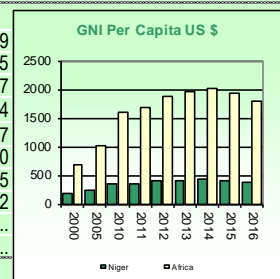
Note : n.a. : Not Applicable ; ... : Data Not Available. * Labor force participation rate, total (% of total population ages 15+)

** Labor force participation rate, female (% of female population ages 15+)

Niger

COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Niger	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)	2017	1,267	30,067	80,386	53,939
Total Population (millions)	2017	21.6	1,184.5	5,945.0	1,401.5
Urban Population (% of Total)	2017	18.6	39.7	47.0	80.7
Population Density (per Km ²)	2017	17.0	40.3	78.5	25.4
GNI per Capita (US \$)	2016	370	2,045	4,226	38,317
Labor Force Participation* - Total (%)	2017	64.6	66.3	67.7	72.0
Labor Force Participation** - Female (%)	2017	40.4	56.5	53.0	64.5
Sex Ratio (per 100 female)	2017	101.7	0.801	0.506	0.792
Human Develop. Index (Rank among 187 countries)	2015	187	...	...	...
Popul. Living Below \$ 1.90 a Day (% of Population)	2014	45.5	39.6	17.0	...
Demographic Indicators					
Population Growth Rate - Total (%)	2017	4.1	2.6	1.3	0.6
Population Growth Rate - Urban (%)	2017	5.6	3.6	2.6	0.8
Population < 15 years (%)	2017	50.6	41.0	28.3	17.3
Population 15-24 years (%)	2017	18.1	3.5	6.2	16.0
Population ≥ 65 years (%)	2017	2.6	80.1	54.6	50.5
Dependency Ratio (%)	2017	113.5	100.1	102.8	97.4
Female Population 15-49 years (% of total population)	2017	20.5	24.0	25.8	23.0
Life Expectancy at Birth - Total (years)	2017	62.7	61.2	68.9	79.1
Life Expectancy at Birth - Female (years)	2017	63.7	62.6	70.8	82.1
Crude Birth Rate (per 1,000)	2017	48.7	34.8	21.0	11.6
Crude Death Rate (per 1,000)	2017	8.4	9.3	7.7	8.8
Infant Mortality Rate (per 1,000)	2016	50.9	52.2	35.2	5.8
Child Mortality Rate (per 1,000)	2016	91.3	75.5	47.3	6.8
Total Fertility Rate (per woman)	2017	7.5	4.6	2.6	1.7
Maternal Mortality Rate (per 100,000)	2015	553.0	411.3	230.0	22.0
Women Using Contraception (%)	2017	16.0	35.3	62.1	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2008	1.9	46.9	118.1	308.0
Nurses and midwives (per 100,000 people)	2008	14.0	133.4	202.9	857.4
Births attended by Trained Health Personnel (%)	2015	39.7	50.6	67.7	...
Access to Safe Water (% of Population)	2015	58.2	71.6	89.1	99.0
Access to Sanitation (% of Population)	2015	10.9	51.3	57	69
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2016	0.4	39.4	60.8	96.3
Incidence of Tuberculosis (per 100,000)	2016	93.0	3.8	1.2	...
Child Immunization Against Tuberculosis (%)	2016	77.0	245.9	149.0	22.0
Child Immunization Against Measles (%)	2016	74.0	84.1	90.0	...
Underweight Children (% of children under 5 years)	2012	37.9	76.0	82.7	93.9
Prevalence of stunting	2012	43.0	20.8	17.0	0.9
Prevalence of undernourishment (% of pop.)	2015	11.3	2,621	2,335	3,416
Public Expenditure on Health (as % of GDP)	2014	3.2	2.7	3.1	7.3
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2016	73.7	106.4	109.4	101.3
Primary School - Female	2016	68.1	102.6	107.6	101.1
Secondary School - Total	2016	23.6	54.6	69.0	100.2
Secondary School - Female	2016	19.9	51.4	67.7	99.9
Primary School Female Teaching Staff (% of Total)	2016	51.0	45.1	58.1	81.6
Adult literacy Rate - Total (%)	2012	15.5	61.8	80.4	99.2
Adult literacy Rate - Male (%)	2012	23.2	70.7	85.9	99.3
Adult literacy Rate - Female (%)	2012	8.9	53.4	75.2	99.0
Percentage of GDP Spent on Education	2015	6.0	5.3	4.3	5.5
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2015	13.3	8.6	11.9	9.4
Agricultural Land (as % of land area)	2015	36.1	43.2	43.4	30.0
Forest (As % of Land Area)	2015	0.9	23.3	28.0	34.5
Per Capita CO2 Emissions (metric tons)	2014	0.1	1.1	3.0	11.6



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

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UNAIDS; UNSD; WHO, UNICEF, UNDP; Country Reports.

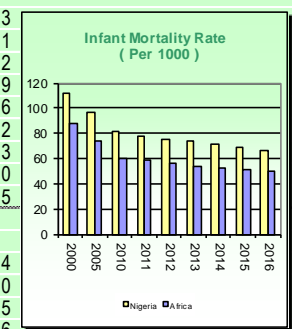
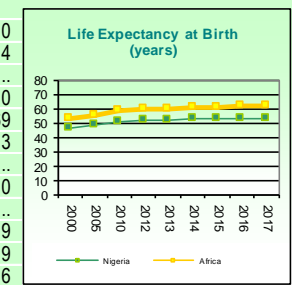
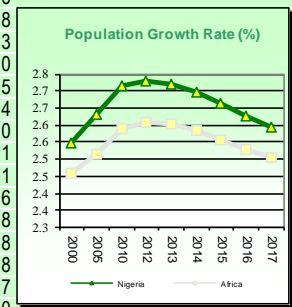
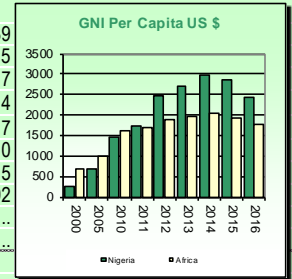
Note : n.a. : Not Applicable ; ... : Data Not Available. * Labor force participation rate, total (% of total population ages 15+)

** Labor force participation rate, female (% of female population ages 15+)

Nigeria

COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Nigeria	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)	2017	924	30,067	80,386	53,939
Total Population (millions)	2017	191.8	1,184.5	5,945.0	1,401.5
Urban Population (% of Total)	2017	49.9	39.7	47.0	80.7
Population Density (per Km ²)	2017	210.6	40.3	78.5	25.4
GNI per Capita (US \$)	2016	2 450	2 045	4 226	38 317
Labor Force Participation * - Total (%)	2017	56.6	66.3	67.7	72.0
Labor Force Participation ** - Female (%)	2017	48.5	56.5	53.0	64.5
Sex Ratio (per 100 female)	2017	103.9	0.801	0.506	0.792
Human Develop. Index (Rank among 187 countries)	2015	152	...	...	...
Popul. Living Below \$ 1.90 a Day (% of Population)	2009	53.5	39.6	17.0	...
Demographic Indicators					
Population Growth Rate - Total (%)	2017	2.6	2.6	1.3	0.6
Population Growth Rate - Urban (%)	2017	4.5	3.6	2.6	0.8
Population < 15 years (%)	2017	43.8	41.0	28.3	17.3
Population 15-24 years (%)	2017	19.1	3.5	6.2	16.0
Population ≥ 65 years (%)	2017	2.7	80.1	54.6	50.5
Dependency Ratio (%)	2017	87.2	100.1	102.8	97.4
Female Population 15-49 years (% of total population)	2017	22.8	24.0	25.8	23.0
Life Expectancy at Birth - Total (years)	2017	53.6	61.2	68.9	79.1
Life Expectancy at Birth - Female (years)	2017	54.0	62.6	70.8	82.1
Crude Birth Rate (per 1,000)	2017	38.1	34.8	21.0	11.6
Crude Death Rate (per 1,000)	2017	12.3	9.3	7.7	8.8
Infant Mortality Rate (per 1,000)	2016	66.9	52.2	35.2	5.8
Child Mortality Rate (per 1,000)	2016	104.3	75.5	47.3	6.8
Total Fertility Rate (per woman)	2017	5.5	4.6	2.6	1.7
Maternal Mortality Rate (per 100,000)	2015	814.0	411.3	230.0	22.0
Women Using Contraception (%)	2017	20.5	35.3	62.1	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2009	37.6	46.9	118.1	308.0
Nurses and midwives (per 100,000 people)	2008	148.9	133.4	202.9	857.4
Births attended by Trained Health Personnel (%)	2013	35.2	50.6	67.7	...
Access to Safe Water (% of Population)	2015	68.5	71.6	89.1	99.0
Access to Sanitation (% of Population)	2015	29.0	51.3	57	69
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2016	2.9	39.4	60.8	96.3
Incidence of Tuberculosis (per 100,000)	2016	219.0	3.8	1.2	...
Child Immunization Against Tuberculosis (%)	2016	64.0	245.9	149.0	22.0
Child Immunization Against Measles (%)	2016	51.0	84.1	90.0	...
Underweight Children (% of children under 5 years)	2014	19.8	76.0	82.7	93.9
Prevalence of stunting	2014	32.9	20.8	17.0	0.9
Prevalence of undernourishment (% of pop.)	2015	7.9	2 621	2 335	3 416
Public Expenditure on Health (as % of GDP)	2014	0.9	2.7	3.1	7.3
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2013	94.1	106.4	109.4	101.3
Primary School - Female	2013	92.8	102.6	107.6	101.1
Secondary School - Total	2013	56.2	54.6	69.0	100.2
Secondary School - Female	2013	53.5	51.4	67.7	99.9
Primary School Female Teaching Staff (% of Total)	2010	48.2	45.1	58.1	81.6
Adult literacy Rate - Total (%)	2008	51.1	61.8	80.4	99.2
Adult literacy Rate - Male (%)	2008	61.3	70.7	85.9	99.3
Adult literacy Rate - Female (%)	2008	41.4	53.4	75.2	99.0
Percentage of GDP Spent on Education	2010		5.3	4.3	5.5
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2015	37.3	8.6	11.9	9.4
Agricultural Land (as % of land area)	2015	77.7	43.2	43.4	30.0
Forest (As % of Land Area)	2015	7.7	23.3	28.0	34.5
Per Capita CO2 Emissions (metric tons)	2014	0.5	1.1	3.0	11.6



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

last update :

May 2018

UNAIDS; UNSD; WHO, UNICEF, UNDP; Country Reports.

Note : n.a. : Not Applicable ; ... : Data Not Available. * Labor force participation rate, total (% of total population ages 15+)

** Labor force participation rate, female (% of female population ages 15+)

APPENDIX II: Ongoing Bank Group Operations in NBA Countries

Country	Project Description	Loan Number	Total Alert	Age	Amount Approved (UAM)	Balance (UAM)	% Disbursed
BENIN	PAGEFCOM II – COMMUNITY FOREST MANAGEMENT	2100150037244	Satisfactory	1.2	5.0	4.8	4.2%
BENIN	PAGEFCOM II - COMMUNITY FOREST MANAGEMENT	2100155034417	Satisfactory	1.2	0.6	0.6	3.3%
BENIN	PAGEFCOM II - COMMUNITY FOREST MANAGEMENT	5550155001301	Satisfactory	1.2	1.8	1.8	0.6%
BENIN	SBEE SUB-TRANSMISSION AND DISTRIBUTION SYSTEM RESTRUCTURING AND EXTENSION	2100155036217	Flagged	0.4	5.2	5.2	0.0%
BENIN	OUÉMÉ VALLEY AGRIC. INFRA. SUPPORT PROJ.	2100150029894	Satisfactory	4.6	0.3	0.0	100.0%
BENIN	OUÉMÉ VALLEY AGRIC. INFRA. SUPPORT PROJ.	2100150030593	Flagged	4.6	39.5	31.4	20.4%
BENIN	OUÉMÉ VALLEY AGRIC. INFRA. SUPPORT PROJ.	2100155026075	Flagged	4.6	0.5	0.4	22.8%
BENIN	OUÉMÉ VALLEY AGRIC. INFRA. SUPPORT PROJ.	5550155000401	Satisfactory	4.6	5.1	3.8	25.5%
BENIN	PROJECT TO SUPPORT FOOD PRODUCTION AND BUILD RESILIENCE	5570155000701	Flagged	2.6	16.9	14.7	12.7%
BURKINA FASO	GAZETTED FORESTS PARTICIPATORY MANAGEMENT PROJECT FOR REDD+	5565155000651	Satisfactory	4.5	8.1	4.8	40.1%
BURKINA FASO	CASHEW DEVELOPMENT SUPPORT PROJECT IN COMOÉ BASIN	2100155034216	Satisfactory	1.3	1.0	0.7	26.4%
BURKINA FASO	CASHEW DEVELOPMENT SUPPORT PROJECT IN COMOÉ BASIN	5565130000451	Satisfactory	1.3	2.8	2.7	2.8%
BURKINA FASO	PPF YOUTH AND WOMEN'S INTEGRATION INTO THE	2100155032366	Flagged	2.0	0.6	0.4	35.4%

	AGRICULTURAL, SILVICULTURAL AND PASTORAL SECTORS						
BURKINA FASO	BAGRE GROWTH POLE SUPPORT PROJECT	2100150033093	Satisfactory	3.1	15.0	5.2	65.1%
BURKINA FASO	BAGRE GROWTH POLE SUPPORT PROJECT	2100155029766	Satisfactory	3.1	6.0	4.4	26.6%
BURKINA FASO	PROGRAMME TO BUILD RESILIENCE TO FOOD AND NUTRITION INSECURITY IN THE SAHEL	2100150032046	Satisfactory	3.6	12.7	9.3	26.6%
CÔTE D'IVOIRE	AGRICULTURAL INFRASTRUCTURE SUPPORT PROJECT IN INDENIE-DJUABLIN REGION	2100155022269	Close Watch	6.2	21.6	6.3	70.9%
CÔTE D'IVOIRE	BELIER REGION AGRO-INDUSTRIAL POLE PROJECT (2PAI BELIER)	2000200000851	Flagged	1.3	53.4	53.4	0.0%
CÔTE D'IVOIRE	BELIER REGION AGRO-INDUSTRIAL POLE PROJECT (2PAI BELIER)	2100150032244	Satisfactory	3.6	0.7	0.0	100.0%
CÔTE D'IVOIRE	BELIER REGION AGRO-INDUSTRIAL POLE PROJECT (2PAI BELIER)	2100150036846	Close Watch	1.3	26.0	25.2	3.4%
CÔTE D'IVOIRE	BELIER REGION AGRO-INDUSTRIAL POLE PROJECT (2PAI BELIER)	2100155034019	Satisfactory	1.3	3.4	2.6	22.9%
CÔTE D'IVOIRE	PPF – ENABLE YOUTH CÔTE D'IVOIRE	2100150036557	Flagged	1.9	1.0	0.9	10.5%
CÔTE D'IVOIRE	VALUE CHAINS DEVELOPMENT PROJECT IN INDÉNIÉ-DJUABLIN REGION	2200160001939	Flagged	1.6	4.0	4.0	0.0%
GUINEA	AGRICULTURAL TRANSFORMATION SUPPORT PROGRAMME - ENT	2100155032817	Flagged	1.8	1.0	0.8	14.6%
MALI	MODERN MILL OF MALI	2000120004019	Satisfactory	3.7	1.3	0.0	100.0%
MALI	MODERN MILL OF MALI	2000130012730	Satisfactory	3.7	12.6	0.0	100.0%
MALI	MODERN MILL OF MALI	5060140000064	Satisfactory	2.6	0.7	0.7	0.0%

MALI	MODERN MILL OF MALI	5060140000068	Satisfactory	2.6	7.7	7.7	0.0%
MALI	AGRICULTURAL TRANSFORMATION SUPPORT PROGRAMME - ENT	2100150039096	Satisfactory	0.8	1.0	1.0	0.0%
MALI	PROGRAMME TO BUILD RESILIENCE TO FOOD AND NUTRITION INSECURITY	2100150032043	Flagged	3.6	18.2	17.0	6.7%
MALI	BANI BASIN AND SELINGUE IRRIGATION DEVELOPMENT PROGRAMME	2100150019993	Satisfactory	9.0	44.0	11.2	74.6%
MALI	PROJECT FOR FOOD SECURITY CONSOLIDATION THROUGH IRRIGATED FARMING DEVELOPMENT	2100150030493	Satisfactory	4.5	33.9	21.6	36.3%
MALI	PROJECT FOR FOOD SECURITY CONSOLIDATION THROUGH IRRIGATED FARMING DEVELOPMENT	2100155026467	Satisfactory	4.5	2.1	1.5	31.6%
MALI	KOULIKORO REGION FOOD AND NUTRITION SECURITY ENHANCEMENT PROJECT	2100150031843	Satisfactory	3.7	3.0	2.7	9.2%
MALI	KOULIKORO REGION FOOD AND NUTRITION SECURITY ENHANCEMENT PROJECT	2200160001339	Satisfactory	3.7	6.5	4.8	25.8%
MALI	KOULIKORO REGION FOOD AND NUTRITION SECURITY ENHANCEMENT PROJECT	5570155000551	Satisfactory	3.7	26.2	15.3	41.5%
MULTINATIONAL	NIGER_ PROGRAMME TO BUILD RESILIENCE TO FOOD AND NUTRITION INSECURITY	2100155028525	Flagged	3.6	14.5	11.0	24.1%
MULTINATIONAL	MULTINATIONAL- PROG. TO BUILD RESILIENCE TO FOOD AND NUTRITION INSECURITY	2100155028566	Satisfactory	3.6	10.0	6.8	31.7%
MULTINATIONAL	BURKINA FASO _ PROGRAMME TO BUILD RESILIENCE TO FOOD AND NUTRITION INSECURITY	2100155028526	Satisfactory	3.6	12.7	8.0	37.2%

MULTINATIONAL	MALI_ PROGRAMME TO BUILD RESILIENCE TO FOOD AND NUTRITION INSECURITY	2100155028523	Flagged	3.6	18.2	16.8	7.8%
MULTINATIONAL	GAMBIA: PROGRAMME TO BUILD RESILIENCE TO FOOD AND NUTRITION INSECURITY	2100155028521	Satisfactory	3.6	11.5	6.3	45.6%
MULTINATIONAL	PROGRAMME TO REHABILITATE AND STRENGTHEN THE RESILIENCE OF LAKE CHAD BASIN SYSTEMS	2100155029067	Flagged	3.4	13.3	12.1	9.3%
NIGER	NIGER_ PROGRAMME TO BUILD RESILIENCE TO FOOD AND NUTRITION INSECURITY	2100150032045	Flagged	3.6	14.5	14.0	3.3%
NIGER	TAHOUA AND ZINDER WATER MOBILISATION PROJECT	2100150025493	Satisfactory	6.7	9.3	2.8	69.6%
NIGER	TAHOUA AND ZINDER WATER MOBILISATION PROJECT	5570155000051	Satisfactory	6.7	23.2	5.8	74.8%
NIGER	PPCR-NIGER- CLIMATE INFORMATION DEVELOPMENT AND FORECASTING PROJECT	5565130000051	Flagged	5.7	6.7	4.4	33.7%
NIGER	PPCR-NIGER- CLIMATE INFORMATION DEVELOPMENT AND FORECASTING PROJECT	5565155000301	Flagged	5.7	2.5	2.1	15.3%
NIGER	WATER RESOURCES MOBILISATION AND DEVELOPMENT PROJECT	5565130000052	Flagged	5.7	8.8	5.3	39.6%
NIGER	WATER RESOURCES MOBILISATION AND DEVELOPMENT PROJECT	5565155000302	Flagged	5.7	6.7	3.2	51.5%
NIGER	NIGER - HUMANITARIAN EMERGENCY AID TO WAR DISPLACED PERSONS	5000199004518	Satisfactory	1.8	0.7	0.7	0.0%
NIGERIA	PLATEAU STATE POTATO VALUE CHAIN SUPPORT PROJECT (PS-PVCP)	2100150037297	Satisfactory	1.2	8.0	7.7	4.4%
NIGERIA	MIC GRANT STRENGTHENING OF FEDERAL MINISTRY OF AGRICULTURE A	5500155010501	Satisfactory	2.0	0.5	0.2	69.0%

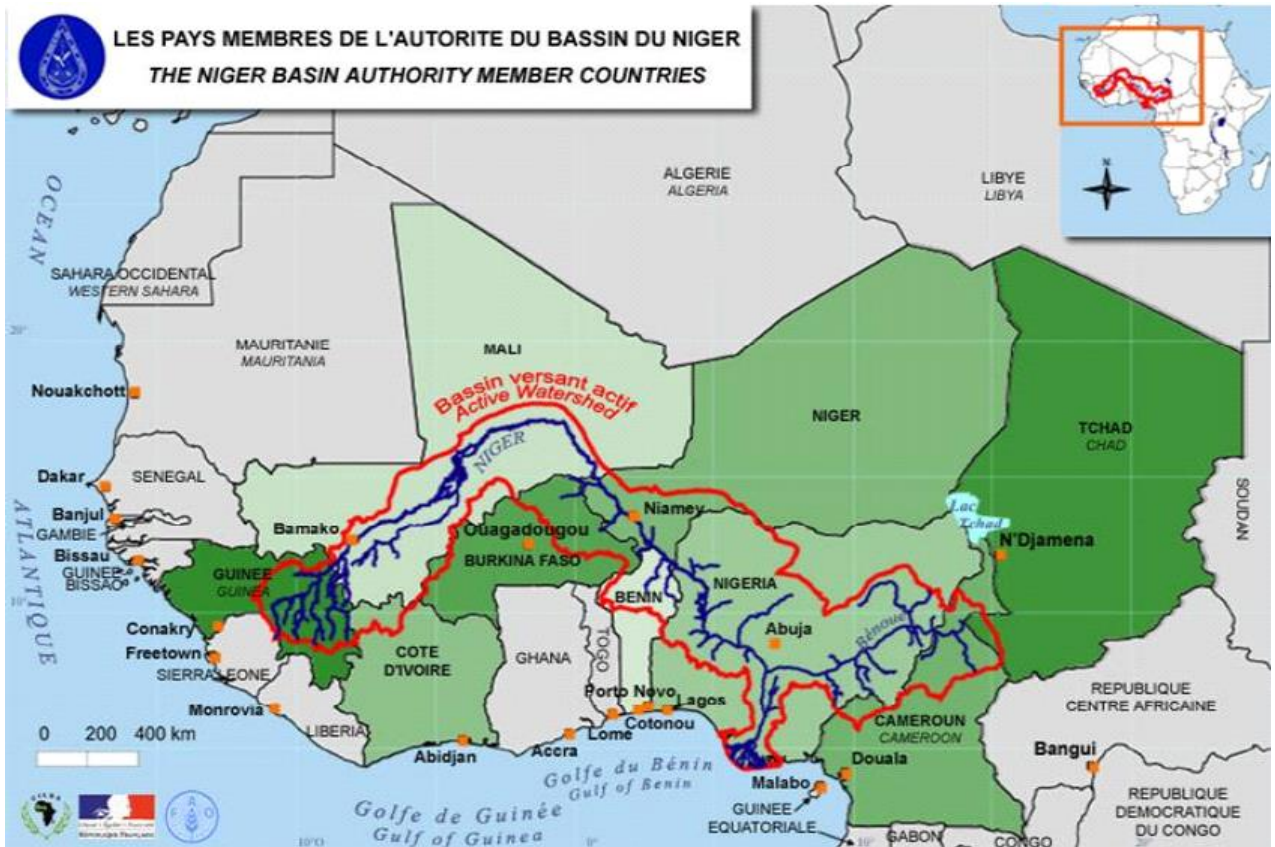
NIGERIA	AGRICULTURAL TRANSFORMATION AGENDA SUPPORT PROGRAMME - PHASE I	2100150029994	Flagged	4.6	98.8	82.3	16.7%
NIGERIA	AGRICULTURAL TRANSFORMATION AGENDA SUPPORT PROGRAMME - PHASE I	2100155025974	Flagged	4.6	0.3	0.1	41.0%
NIGERIA	MIC-GRANT SUPPORT TO BANK OF AGRICULTURE (BOA) LIMITED	5500155010351	Satisfactory	2.1	0.7	0.6	11.9%
CAMEROON	CENTRAL AFRICA BIODIVERSITY CONSERVATION PROJECT	2100150029743	Satisfactory	4.9	0.3	0.0	80.6%
CAMEROON	GRASSFIELD DECENTRALISED AND PARTICIPATORY RURAL DEVELOPMENT PROJECT	2100150030193	Satisfactory	4.6	13.6	7.5	45.0%
CAMEROON	GRASSFIELD DECENTRALISED AND PARTICIPATORY RURAL DEVELOPMENT PROJECT	2100155026167	Satisfactory	4.6	3.2	2.5	22.5%
CAMEROON	AGRICULTURAL VALUE CHAIN DEVELOPMENT PROJECT	2000130015031	Close Watch	2.4	73.5	71.3	3.1%
CAMEROON	PROGRAMME TO REHABILITATE AND STRENGTHEN THE RESILIENCE OF LAKE CHAD BASIN SYSTEMS	2100150032543	Flagged	3.4	12.5	11.3	9.7%
CHAD	CHAD_ PROGRAMME TO BUILD RESILIENCE TO FOOD AND NUTRITION INSECURITY	2100155028524	Flagged	3.4	9.8	8.3	14.6%
CHAD	PROGRAMME TO REHABILITATE AND STRENGTHEN THE RESILIENCE OF LAKE CHAD BASIN SYSTEMS	2100155029066	Flagged	3.2	5.4	4.8	11.1%
			Total		768.3	562.9	73,3%

Ongoing Operations of Other Partners in the Niger Basin Managed by ES/NBA

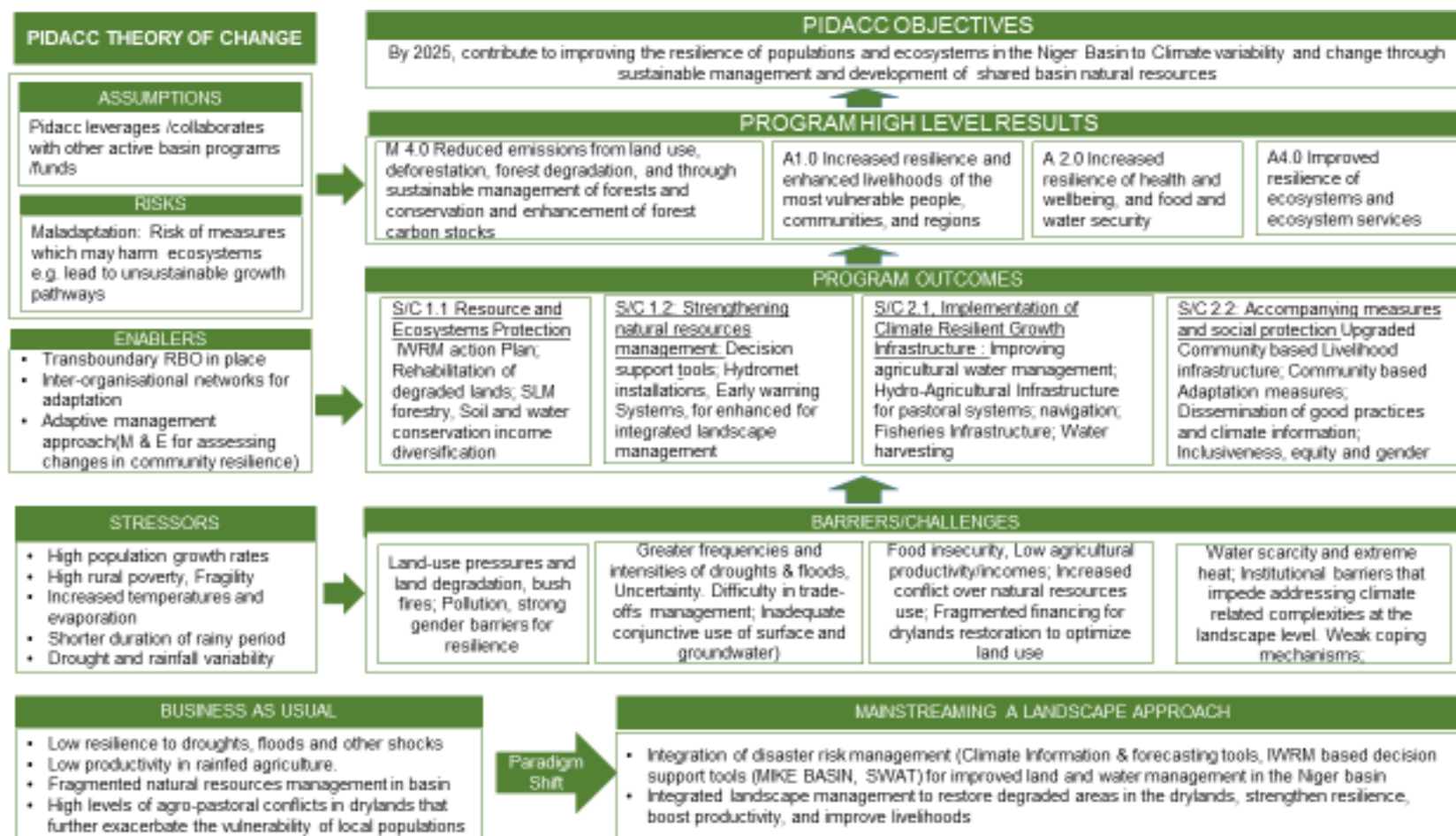
No.	Project/Programme Names	Intervention Sectors	Total Budget	Donors	Duration
1-	Water Resources Development and Sustainable Ecosystems Management Program (Phase 2)	Building of NBA institutions and capacity	USD 3.3 million	IDA/World Bank	From 2 October 2012 to 1 April 2021
	Niger Basin Water Resources Development and Sustainable Ecosystems Management Programme (Phase 2)	Regional Institutional Coordination for the Development and Management of Water Resources in the Niger Basin Improvement of production at hydropower plants Enhancement of irrigated agriculture Watershed management	USD 186 million	IDA/World Bank	2008-2014
2-	Niger River Basin Management Project (PGBFN)	Building of NBA capacity to enable the Authority to sustainably fulfil its mandate	USD 7.5 million	IWRM/World Bank	5 years/2015-2019
3-	Niger Basin Silting Control Programme (NBSCP) - Consolidation Phase (PLCE/BN) -	Building of the institutions and capacity of NBA member countries Environmental protection	CFAF 2 635 000 000	WAEMU	Initial duration: 3 years Extended until 31 December 2018. From 21 /12/2012 to 31/12/ 2018
4-	Project to conduct technical and environmental studies on the Programme for Integrated Development and Adaptation to Climate Change in the Niger Basin (PIDACC/NB)	Water and the environment	EUR 1 647 910	AWF/AfDB, ICA, WAEMU	20 months, but extended. From 2/04/2014 to 31/12/2018
5-	GIZ project "Support to the Niger Basin Authority"	Institution building and capacity building for the NBA	EUR 3 million	GIZ	January 2016; will end on 31 December 2018
6-	Programme for Rehabilitating Public Irrigation Schemes (PRPIP) in Niger	Food security	EUR 21 million	KFW	5 years
7-	Niger Basin Groundwater Management Support Project (P-AGES)	Water	EUR 2.5 million	German Ministry of Economic Cooperation	3 years + 1.5 years' extension (4/2018 - 9/2019)

				and Development (BMZ)	
8-	Satellite-Based Water Monitoring and Flow Forecasting (SATH) in the Niger River Basin	Institution building and capacity building for the NBA	EUR 3.415 million	Government of the Netherlands	3 years
			EUR 1 million	AfDB	
9 -	Studies and Capacity Building Fund (FERC)	Institution building and capacity building for the NBA	EUR 1 million	AFD	3 years

APPENDIX III: Map of Project Area



APPENDIX 4



APPENDIX 5
INSTITUTIONAL ARRANGEMENTS FOR THE IMPLEMENTATION OF PIDACC

