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**AFRICAN DEVELOPMENT BANK
AFRICAN DEVELOPMENT FUND**

**PROJECT: Drinking Water Supply and Sanitation in Three Divisional
Headquarters and Surrounding Rural Areas**

COUNTRY: CENTRAL AFRICAN REPUBLIC

PROJECT APPRAISAL REPORT

Date: September 2009

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CURRENCY EQUIVALENTS

(June 2009)

UA 1 = CFAF 720.280

UA 1 = EUR 1.09806

UA 1 = USD 1.54805

FISCAL YEAR

1 January – 31 December

WEIGHTS AND MEASURES

m	=	metre
ml	=	linear metre
m ³	=	cubic metre
km	=	kilometre
l/d/inh.	=	litre per day per inhabitant

LIST OF ABBREVIATIONS

ADF	:	African Development Fund
AFD	:	Agence Française de Développement (French Development Agency)
AAP	:	Advance Action on Procurement
APD	:	Final Design
APS	:	Preliminary Design
AWF	:	African Water Facility
BF	:	Standpipe
BD	:	Board of Directors
CAR	:	Central African Republic
CI	:	Consulting Engineer
CSP	:	Country Strategy Paper
DGH	:	General Directorate of Water Resources
DGMP	:	General Directorate of Public Contracts
DWS	:	Drinking Water Supply
DWSS	:	Drinking Water Supply and Sanitation
ERR	:	Economic Rate of Return
ESIA	:	Environmental and Social Impact Assessment
ESMP	:	Environmental and Social Management Plan
EU	:	European Union
EIG	:	Economic Interest Group
HOP	:	Hand-Operated Pump
IEC	:	Information, Education and Communication
JCPSP	:	Joint Country Partnership Strategy Paper
MFT	:	Manual Flush Toilet
MMEH	:	Ministry of Mines, Energy and Water Resources
MSPPLS	:	Ministry of Public Health, Population and AIDS Control
NGO	:	Non-Governmental Organization
SWP	:	Standalone Water Points
PRSP	:	Poverty Reduction Strategy Paper
RWSSI	:	Rural Water Supply and Sanitation Initiative
SODECA	:	Central African Water Distribution Corporation
UNDP	:	United Nations Development Programme
UNICEF	:	United Nations Children's Fund
VIP	:	Ventilated Improved Pit

Project Information Sheet

Client Information Sheet

RECIPIENT : Government of the Central African Republic
EXECUTING AGENCY : Ministry of Mines, Energy and Water Resources
 Address:

Financing Plan

Source of Financing	Amount (UA)	Instrument
ADF	7 000 000	ADF Grant
RWSSI Trust Fund	3 000 000	RWSSI Trust Fund Grant
CAR Government	97 000	
Beneficiaries	257 000	
TOTAL COST	10 354 000	

Duration – Main Stages (expected)

Approval of Design Note	June 2009
Project Approval	November 2009
Effectiveness	January 2010
Last Disbursement	December 2013
Completion	December 2014

EXECUTIVE SUMMARY

1. This project covers three divisional headquarters situated in the South-West and Centre-West of the Central African Republic, namely Berberati, Bouar and Bossangoa and surrounding villages. The main expected outputs of this project are: (i) rehabilitation and extension of the drinking water supply systems in Berberati, Bouar and Bossangoa, building of 60 standpipes and making 2 300 low-cost connections to the service in these towns; (ii) construction of 48 boreholes equipped with hand-operated pumps; (iii) construction of two standalone water points; (iv) construction of 34 simplified drinking water supply networks; (v) construction of 73 blocks of latrines in public buildings; (vi) construction of three landfills; (vii) construction and equipment of a central laboratory and offices for the DGH and SODECA; (viii) supply of the DGH, SODECA and the Berberati, Bouar and Bossangoa Municipal Councils with computer hardware and office automation equipment; and (ix) training and sensitization of about 160 000 people. The project will be implemented in 48 months.

2. The estimated project cost stands at UA 10.354 million and will be financed through a UA 7 million ADF Grant, a UA 3 million RWSSI Trust Fund Grant, a CAR Government contribution of UA 0.097 million and beneficiary participation to the tune of UA 0.257 million. The RWSSI Trust Fund will finance the construction of 34 simplified drinking water supply networks in villages situated less than five kilometres from the three divisional headquarters, the construction of 48 HOP boreholes, the construction of two standalone water points, and the construction of 73 blocks of latrines. The RWSSI Fund will also contribute to financing IEC activities, works supervision and control, project management and operating costs. The project will help to meet the drinking water and sanitation service needs of the population of these divisional headquarters and surrounding rural areas estimated at 259 915 in 2020, 52.5 percent of them women.

3. Furthermore, the project will benefit the institutional structures involved in its implementation, namely DGH, SODECA, the Municipal Councils, EIGs and women's associations. The project will create 280 jobs during the implementation phase and after completion through micro-businesses especially in water and sanitation management.

4. The main expected project outputs are sustainable access to drinking water (the access rate will increase from 32% currently to 100% in 2020) and sanitation services (from the current 10% to 20% in 2020) in the project area, and a positive change of attitude and behaviour among 160 000 people with respect to hygiene and health. The average prevalence rate of diseases associated with water and sanitation will drop by more than half, from 22% to 10% over the period.

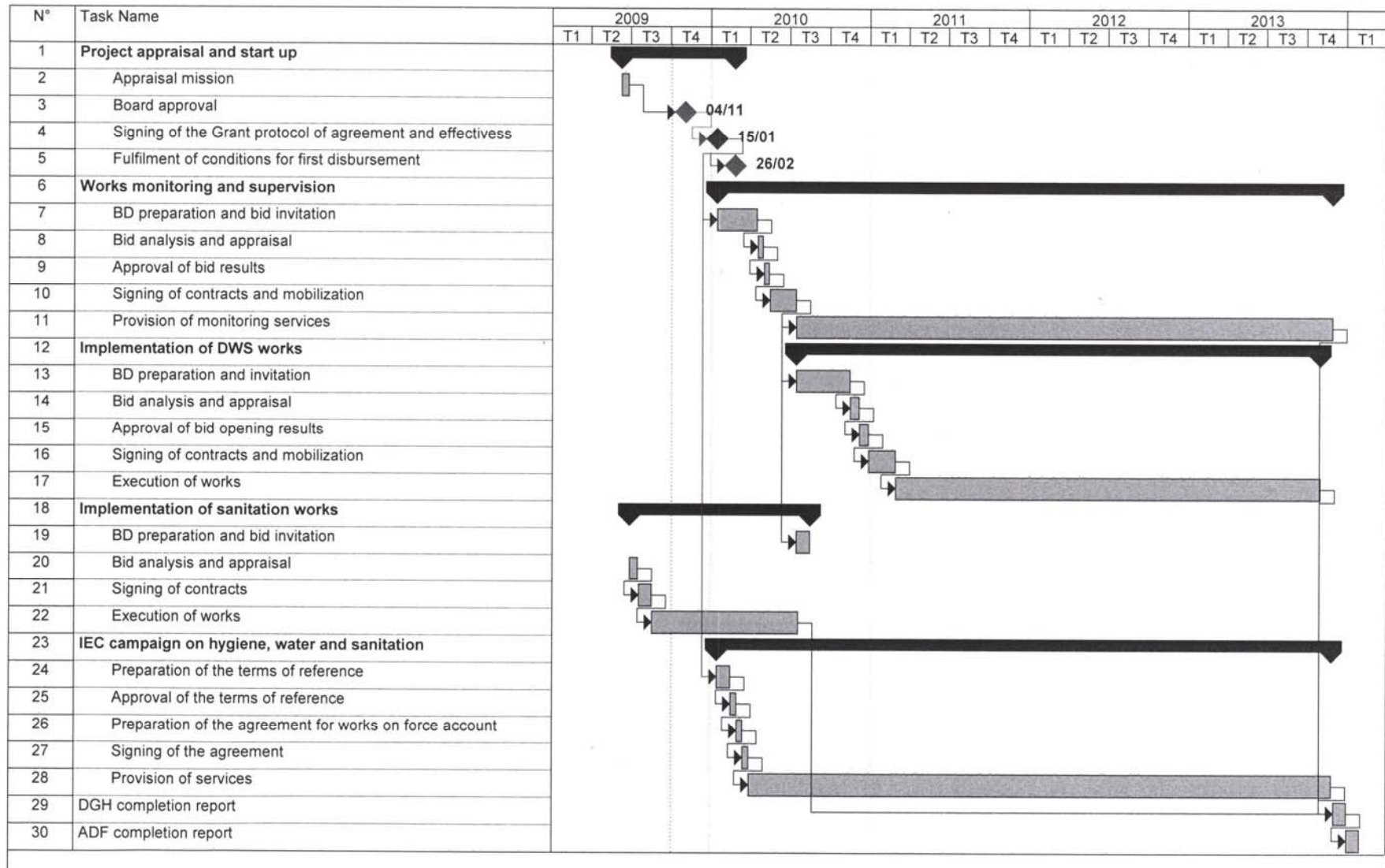
5. In terms of comparative advantages, the Bank, through the AWF, supported the CAR Government in preparing DWSS studies in 16 divisional headquarters from 2007 to 2009. The Bank has broad knowledge of the project data, its environment and the concerns of the beneficiaries. Moreover, the Bank has solid experience in implementing drinking water supply and sanitation projects in secondary towns and rural areas. The project will help to generate new knowledge on the characteristics of water tables in equatorial climate in the wake of intensive exploitation and climate change, as well as the possibility of using solar energy as an alternative source of energy in the production and distribution of water in towns.

Project Results-Based Logical Framework

HIERARCHY OF OBJECTIVES	EXPECTED OUTPUTS	SCOPE (Beneficiaries)	PERFORMANCE INDICATORS	BASELINE SITUATION, INDICATIVE TARGETS AND TIMELINE	ASSUMPTIONS/RISKS
PROJECT GOAL	LONG-TERM OUTPUTS By 2025			By 2025	
- Contribute to improving the living conditions of the CAR population through universal access to drinking water and sanitation services	The sectoral objectives for drinking water supply and sanitation in CAR are achieved;	Beneficiaries: CAR population (6.3 million)	Drinking water and sanitation access rate. Sources: Reports of Municipal Councils, DGH, MMEH, MOH	Increase in the drinking water and sanitation access rate from 30.3% to 100% and 10% to 60%, respectively.	Assumptions - Political stability, - Sustained support of partners to the water and sanitation sector
PROJECT OBJECTIVE	MEDIUM-TERM OUTPUTS	BENEFICIARIES	IMPACT INDICATORS	BY 2020	
Improve the living environment of the population through improved access to drinking water and sanitation in three divisional headquarters in CAR (Berberati, Bouar and Bossangoa) and surrounding rural areas	By 2020 (Impacts) (1) The prevalence of water-borne diseases is reduced in the three divisional headquarters and surrounding areas (2) Access of the population to drinking water in the three towns and surrounding areas is improved; (3) Sanitation services are improved; (4) The proportion of the population sensitized and who have positively changed their behaviour towards hygiene and health has increased; (5) The capacity of sector actors are strengthened; (6) Permanent jobs are created.	- Population of the divisional headquarters targeted by the project, about 220 365 people - Rural population in surrounding areas, i.e. 39 550 people - DGH, SODECA, Councils, Ministry of Health	(1) The average prevalence rate of water-borne diseases in the three divisional headquarters and surrounding areas (2) Drinking water access rate; (3) Sanitation access rate; (4) Percentage of the population sensitized to hygiene (5) Training is provided to the staff of DGH, SODECA, Municipal Councils, regional directorates of social affairs and health (6) Number of jobs created.	(1) Reduction of the average prevalence rate of water-borne diseases from 22% (currently) to less than 10% in the project area (2) Increase of the average drinking water access rate from 32% (currently) to 100% (+68%) (3) Increase of the average sanitation access rate from 10% (currently) to 20%; (4) Adoption of a new positive attitude towards hygiene by 60% of the population (5) Senior staff of the DGH are trained, 30 social workers are trained in extension methods, hygiene and health (6) 280 job are created, 60% of them reserved for women	Risk No. 1: Insecurity and priority to security-related efforts. Recent political developments and the inclusive dialogue that took place in December 2008 and the presidential elections billed for 2010 will promote an atmosphere of peace and stability. Risk No. 2: Institutional weakness Institutional capacity of various actors strengthened
INPUTS/ACTIVITIES	OUTCOMES/OUTPUTS By 2013	BENEFICIARIES	PERFORMANCE INDICATORS	By 2013	
(1)- Rehabilitation and extension of drinking water supply facilities and protection of catchment areas - Construction of simplified networks, HOP boreholes and standalone water points in surrounding rural villages (2) – Public sanitation facilities are developed in the project area; CAPACITY BUILDING (3) IEC campaigns for a change of behaviour towards hygiene (4) Training of senior staff of DGH and SODECA on Bank rules and procedures (5) Logistic support to municipal councils; (6) Recruitment of consultants for works control and auditing; (7) Recruitment of IEC service providers; - Recruitment of contractors FINANCIAL RESOURCES ADF Grant: UA 7 000 000 RWSSI: UA 3 000 000 Beneficiaries: UA 257 000 CAR Govt.: UA 97 000 TOTAL: UA 10 354 000	(1) DWS facilities are rehabilitated and/or built in the three divisional headquarters; - PVC connections - Standpipes are built/rehabilitated in surrounding rural areas; - Low-cost connections provided; - Simplified networks, standalone water points and HOP boreholes in surrounding rural areas (2) Sanitation Facilities - Latrines are built in main markets, stadia, motor parks, public schools and health centres - Solid waste disposal and treatment systems are put in place. (3) Institutional Support - The population of the divisions are sensitized on hygiene and health issues - Pupils, teachers and municipal councils are sensitized on the relationships between hygiene, sanitation and health - Senior staff of DGH, SODECA and decentralized health and social services are trained; - Traders' associations are sensitized and in turn sensitize others in markets	- Entire population of the three divisional headquarters and the surrounding rural areas targeted by the project (242 365 inhabitants) in 2020, 52.5% of them women; - Contracting firms - Worksites employees - NGOs - Urban population of the three divisions - Mayors and municipal councillors - School teachers and pupils - MMEH, Senior staff of DGH and SODECA - Councils and Divisions. - Companies - Audit firm. - NGOs and other national enterprises - Major DWS works companies;	(1) Number of facilities rehabilitated/constructed - Linear metres of PVC pipes laid - Linear meters of asbestos cement pipes replaced - Number of standpipes built; - Number of low-cost connections made: new connections - Number of HOP boreholes built in rural areas (2) Number of latrines in public buildings; - Number of landfills developed; - Number of people sensitized - Number of community development workers sensitized; - Number of teachers sensitized - Number of senior staff trained - Number of municipalities equipped; - Number of traders' associations sensitized Sources: DGH, MMEH, municipalities, associations, consulting firms and other service providers.	(1) The total production capacity increases from 3 096 m ³ /d currently to 10 409 m ³ /d in 2013 - 90 boreholes are equipped: rate of construction of new DWS systems, (100%) - 46 991 ml of PVC pipes (100% in 2013); - 15 175 ml asbestos pipes are replaced in 2013; - Standpipes: 60 new standpipes in 2013; - 2 300 low-cost connections (100%) and 2 300 individual meters are installed, in addition to 22 compound meters; - 48 HOP boreholes, 2 SWPs and 34 RSEs in surrounding rural areas are built; - 73 blocks of public latrines compared to 0 currently; - Three landfills are developed in 2013 as against 0 currently; - Catchment areas in Berberati and Bouar are protected - 160 000 people are sensitized to hygiene and health-related issues; - 10 community development workers are trained - 100 school teachers are sensitized; - Senior staff of DGH, SODECA and decentralized health and social services are trained; - 3 municipalities are equipped; 100% at end of 2013 - 14 traders' associations are sensitized - Electro-mechanical and electrical facilities of DWS networks, DGH and SODECA offices as well as the water analysis laboratory are rehabilitated and/or constructed and equipped in Berberati, Bouar and Bossangoa by late 2011.	Risk No. 3: Low project ownership by beneficiaries - Involvement of Mayors and municipal councils to ensure ownership of the facilities and equipment provided. - Introduction of a DWSS sector investment and maintenance budget for Municipal Councils (done) - Mobilization and sensitization of beneficiaries

Project Implementation Schedule

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**REPORT AND RECOMMENDATION OF BANK GROUP MANAGEMENT
TO THE BOARD OF DIRECTORS CONCERNING A PROPOSAL FOR THE
AWARD OF A GRANT TO THE CENTRAL AFRICAN REPUBLIC
TO FINANCE A DRINKING WATER SUPPLY AND SANITATION PROJECT IN
THREE DIVISIONAL HEADQUARTERS AND SURROUNDING RURAL AREAS**

Management hereby submits this report and recommendation concerning a proposal for the award of a UA 7 million grant from ADF XI and a UA 3 million (or EUR 3.37 million) RWSSI Trust Fund grant to the Central African Republic to finance a drinking water supply and sanitation (DWSS) project in three divisional headquarters and surrounding rural areas.

I. STRATEGIC ORIENTATION AND JUSTIFICATION

1.1 Project Links with Country Strategy and Objectives

1.1.1 This project is in line with the PRSP of the Central African Republic for the 2008-2012 period. It plugs into Pillar III of the PRSP concerning economic reconstruction and diversification. The project is also in keeping with the Joint Country Partnership Strategy Paper (JCPSP) of the Bank and the World Bank in CAR approved by the Board in July 2009 and which supports the development of basic infrastructure and social services, with priority on drinking water supply and sanitation. The project will help to improve the living conditions of the population by rehabilitating and extending drinking water supply and sanitation systems in the three divisional headquarters of Berberati, Bouar and Bossangoa and surrounding villages.

1.2 Justification for the Bank's Involvement

1.2.1 Between 1996 and 2003, CAR witnessed successive political and military crises during which many facilities in the water and sanitation sector were destroyed. The country's drinking water supply coverage rate is one of the lowest in the world, estimated in 2008 at 29.5% in urban areas and 32% in rural areas, i.e. 30.3% national average. With regard to sanitation, available data points to an average access rate of about 10%. Since the end of the crises, the Government in its desire to improve the living conditions of the population, has listed the drinking water supply and sanitation (DWSS) sector among its priorities. In that regard, various regulatory instruments were prepared and adopted, resulting in far-reaching institutional changes in the DWSS sector. In January 2005, the Government adopted a road map for the implementation of Integrated Water Resources Management. Law No. 6 001 on the Water Code was passed on 12 April 2006. In May 2006, the Government also adopted a National Water and Sanitation Policy and Strategy Paper which sets out the country's general water resources and sanitation management thrusts. Lastly, it adopted a Water and Sanitation Master Plan. With this institutional framework, the Government plans to carry out investments and in priority provide the country's sixteen (16) divisional headquarters with adequate drinking water supply and sanitation facilities.

1.2.2 Against that background, the Government in August 2007 obtained financing from the African Water Facility (AWF) to fund a technical feasibility study and detailed designs for each of the 16 divisional headquarters. On study completion, a site inventory was conducted in 14 divisional headquarters and final designs prepared for six of them. Based on these studies, the Government sought financing from the Bank for the development of DWSS facilities in three of the most important divisional headquarters characterized by a low

services access rate, a large population, huge economic potential and greater security. The lack of drinking water in these towns has become a source of social tension. Drinking water is a priority for the population of these towns, but supply services are inadequate. In spite of the huge water resource potential, the inhabitants of the three divisional headquarters suffer from acute water shortage due to insufficient production, poor distribution owing to obsolete networks where water losses take as much as 50% of total production, electro-mechanical installations that are often out of order (either due to obsolescence or lack of fuel to run them). The surrounding rural areas also encounter the same difficulties and have access only to unsafe water for consumption. In Berberati, for drinking water needs estimated at 5 178 m³ of water per day by the year 2020, the system currently produces only 1 120 m³ of water per day. In Bossangoa, for drinking water needs estimated at 2 479 m³ per day, current production stands at 696 m³ per day. In Bouar, for estimated needs of 2 752 m³ of water per day, the existing system, even after its rehabilitation, cannot produce more than 1280 m³ of water per day (the system is currently out of order). It is thus imperative to carry out the rehabilitation and extension of the drinking water supply systems in the three towns.

1.2.3 The Central African Water Distribution Corporation (SODECA) is responsible for the distribution of water in the three divisional headquarters. In these three towns, the corporation has only an Agency Manager who supervises a small team comprising one sales representative, one plumber, one system officer, one plumber assistant, one yard hand and labourers. Spare parts are usually not available and heavy repair works depend on support from the head office. It is therefore necessary to strengthen the intervention capacity of the secondary centres.

1.3 Aid Coordination

1.3.1 The drinking water supply and sanitation sector in the CAR, in general, and in urban areas, in particular, hardly receives any financing (with the highest proportion being 3.4% of the total aid disbursed in 2008). The few fragmented facilities that exist are mainly financed with external resources. Apart from the ADB, the main donors currently involved in the sector are: the European Union (EU) within the framework of “Development Poles¹”, the AFD (which provided budget support to SODECA in 2007 and support for the rehabilitation of the hydroelectric power plant in Bouali), the World Bank, UNICEF and some NGOs. Ongoing operations include: an Emergency Urban Infrastructure Development Project with a water and sanitation component financed by the World Bank; an Institution Building Project for the DGH and a Rural Water and Sanitation Project financed by the EU. Under the 10th EDF Resource framework, the European Union is preparing the Development Pole project which could cover two of the sixteen divisional headquarters studied, namely Bambari and Bozoum. According to the EU, investing in these towns will help to enhance local development and decentralization and will allow them to actually hold sway over their administrative impact area. The World Bank is preparing a DWSS project in Bangui for 2010. Thus, the World Bank and the AFD have concentrated their efforts in Bangui, while the Bank, UNICEF and the EU direct their aid mainly to secondary towns and rural areas. The World Bank made this choice considering the limited resources it currently has and in a bid to contribute to improving the financial situation of SODECA, since this corporation is currently facing serious difficulties. The AWF is financing a comprehensive institutional support to the DWSS sector through a grant approved in July 2009.

¹ The development pole is an approach aimed at considering a region as a coherent and homogenous economic entity with a specific economic orientation based on its resources, potential and comparative advantages. This approach incorporates all development aspects, including DWSS facilities.

Table 1.3
Aid Coordination

	Sector or Sub-sector	Contribution		
		GDP	Exports	Workforce
2008	Water and sanitation sector	0.16%	Negligible	Negligible
Stakeholders – Annual Public Expenditure, in CFAF billion (average)				
	Government	All Donors	<i>Share of total aid disbursed</i>	
2006	0.086	1.207	-	
2007	.	2.014	1.7%	
2008	0.366	3.973	3.4%	
2009 (projections)	0.490	7.438	6.5%	
Level of Aid Coordination				
	Existence of thematic working groups			Ongoing
	Existence of an overall sector programme			No
	Role of the ADB in aid coordination			M**

** L: Leader; M: Member

1.3.2 Donor coordination is not institutionalized. However, under impetus from the Bank, the EU and the World Bank, a coordination platform is gradually being set up. The “Water and Sanitation” Sector Committee established to monitor the DSCR and chaired by UNICEF will provide anchorage for structuring such coordination. UNICEF is supporting the Government in organizing a donors’ round table in October 2009. The MMEH, through the DGH, is part of the Sector Committee and is expected to play a crucial role in future when its capacity would have been built. During various missions, the Bank made efforts to encourage the establishment of a formal coordination platform. Thus, during the project identification, preparation and appraisal missions, the Government, as directed by members of the mission, organized a Donors’ Forum to share information and views, to allow for greater harmonization of operations.

II. PROJECT DESCRIPTION

2.1 Project Components

2.1.1 To meet the priority needs of the population of Berberati, Bouar and Bossangoa and targeted surrounding villages, the project will be structured around the following three main components: (i) development of drinking water supply and sanitation facilities; (ii) institutional support at the central and local level for project implementation, infrastructure operation and sustainability; and (iii) project management. Hence, the project will finance the rehabilitation, strengthening and extension of drinking water networks; the construction of latrines in public places and a controlled landfill in each town. It will further finance drinking water supply in 43 rural localities of the region by building standpipes, hand-operated pump (HOP) boreholes, standalone water points (SWPs) and simplified water distribution networks (SWDNs). Thus, in Berberati Division, 11 HOP boreholes will be built in nine villages and

two SWPs in two other villages; in Bouar Division, 15 HOP boreholes will be built in 12 villages and in Bossangoa, 20 HOP boreholes will be constructed in 20 villages. Support by way of material, equipment and training will be provided to the DGH at the central level, the Regional Directorates of Bouar and Bossangoa, the three SODECA centres and the municipal councils concerned. An important communication component for behavioural change is also envisaged.

2.1.2 The description of project components and their costs have been summarized in the table below:

Table 2.1
Description of Project Components

	Component	Component Cost	Component Description
A	DWSS infrastructure development	UA 8.148 million	<p style="text-align: center;"><u>Infrastructure Development</u></p> <p>The infrastructure development component has been divided into four sub-components:</p> <ul style="list-style-type: none"> • Drinking water supply: rehabilitation and extension of the drinking water supply networks in Berberati, Bouar and Bossangoa, including water production, storage and distribution. • Sanitation: construction of 73 blocks of latrines in schools, health centres, markets, motor parks and prisons. • Environment: protection of the spring in Berberati and the catchment area in Bouar; project environmental and social monitoring. • Construction of 46 hand-operated pump (HOP) boreholes and two standalone water points (SWPs) in 43 surrounding villages and 34 simplified networks in 34 other villages. • Works supervision and control: this sub-component covers all drinking water supply, sanitation and environmental works.
B	Institutional support	UA 1.198 million	<p style="text-align: center;"><u>Institutional Support</u></p> <p>The institutional support component has been divided into six sub-components as follows:</p> <ul style="list-style-type: none"> • Support to the DGH at the central level: construction of offices and a water analysis laboratory, provision of office furniture, computer hardware and office automation equipment, vehicles, staff training and procurement support • Support to the DGH at the regional level: rehabilitation of offices in Bouar and Bossangoa, provision of office furniture, computer hardware, office automation equipment and staff training • Support to SODECA agencies: rehabilitation of offices, provision of office furniture, computer hardware and office automation equipment, vehicles and staff training; • Support to Municipal Councils: provision of office furniture, computer hardware and office automation equipment, and staff training; • Health system support: provision of computer hardware and office automation equipment, water analysis laboratory equipment and vehicles, and staff training;
C	Project management	UA 1.008 million	<p style="text-align: center;"><u>Project Management</u></p> <ul style="list-style-type: none"> • Auditing of project accounts • Operation

2.2 Technical Solutions Chosen

2.2.1 Different technical options were considered for meeting the drinking water supply needs of each of the three divisional headquarters. Thus, in Berberati, the option adopted is to rehabilitate the Nawouya spring and the Samari boreholes, equip the Ndao boreholes and increase production by constructing 17 new boreholes – meaning that all production will be tapped from groundwater sources. In Bouar, the option adopted is to rehabilitate the existing system and increase production by tapping groundwater with the construction of 19 new boreholes. In Bossangoa, the option retained is to increase the current production by harnessing groundwater which requires the rehabilitation of existing boreholes and construction of 12 new ones. Low-cost connections and standpipes will be put in place to step up distribution.

2.2.2 The technical choices suggested for sewage disposal all fall under the improved standalone system involving the construction of manual flush toilets (MFT) and ventilated improved pits (VIP) or Sanplat slabs. The other option would be the traditional collective sewage disposal system, which is more expensive both in terms of investment and operation. Furthermore, this second option is not suited to the prevailing context in the three towns, characterized by relatively low drinking water consumption. This option was therefore rejected. Concerning standalone sewage disposal, the model of public convenience adopted is a multi-box (5 to 6) standard structure equipped with manual flush toilets (MFT) and separate sections for ladies and gentlemen, including three urinals and two hand-wash stands. A single model plan will be used for all the project facilities.

2.2.3 For the treatment of solid wastes, three options were examined, namely landfill, incineration and composting. Bearing in mind the need to acquire technology that is simple to implement with relatively low investment and operation costs, the option of the controlled landfill was chosen for this project. The landfill will be developed and fenced and wastes will be spread and regularly compacted to avoid their dispersal.

Table 2.2
Project Alternatives Considered and Rejected, and Reasons for Rejection

Alternative Option	Brief Description	Reasons for Rejection
<u>DWS</u>		
In Berberati, use of combined resources: ground and surface.	Rehabilitation of the Nawouya spring and Samari boreholes, equipping the Ndao boreholes and pumping water from River Batouri to Berberati.	Requires the building of a lifting threshold and a new pumping and treatment station which are expensive in terms of investment and operation.
In Bouar, harnessing additional surface water to meet the needs of the population.	In Bouar, rehabilitation and extension of the existing water treatment plant.	Requires the implementation of more works and comes with other expenses relating to surface water treatment. More rehabilitation works and higher running costs.
In Bossangoa, harnessing additional surface water to meet the needs of the population.	Rehabilitation of existing boreholes and increasing production through pumping from River Ouham	
<u>Sewage disposal</u>		
The option for sewage disposal was to construct a collective system	Building a traditional collective network (sewerage network)	Expensive both in terms of investment and operation and is not suitable in a context of relatively low drinking water consumption.
<u>Solid waste disposal</u>		
For the treatment of solid waste in each town, it was decided that an incinerator or a compost will be developed in each town	Incineration involves the destruction of waste by heat. Composting is the biological decomposition of organic waste	Incineration has a limited recovery rate, causes atmospheric pollution and produces a large number of solid residues which must be disposed of in a landfill. Composting treats only organic wastes and requires sorting at production.

2.3 Project Type

This operation is designed as a Grant for an investment project. It is premature to adopt the sector-wide budgetary support approach (SWAp) at this juncture, considering the relatively weak institutional organization of the sector at the central and local levels, as well as the weak public expenditure internal control. As things stand, the project grant is the most suitable instrument, given that part of the resources will be used to support the main sector actors, namely DGH, SODECA, Berberati, Bouar and Bossangoa Councils, as well as the Department of Community Health and the Regional Directorates of Social Affairs. Furthermore, the support activities envisaged under the project will complement the institutional support that the African Water Facility plans to provide to the ongoing DWSS sector reform and strengthen the capacity of structures in charge of the sector at the central and decentralized levels.

2.4 Project Cost and Financing Arrangements

Overall project cost will amount to UA 10.354 million, net of taxes, of which UA 8.514 million (82.23%) in foreign exchange and UA 1.840 million (17.77%) in local currency. The cost includes a 7% provision for physical contingencies and a 3% annual provision for price escalation. The ADF will contribute UA 7 million to project financing (67.61% of the total cost) in the form of a grant. The Rural Water Supply and Sanitation Initiative (RWSSI) Trust Fund will provide UA 3 million (28.97% of the cost), while the beneficiaries will contribute the equivalent of UA 0.257 million (2.48%) in kind (sand and gravel for the construction of latrines) and labour for the development of landfills. The Government will be responsible for paying compensation for loss suffered following the expropriation of property, assessed at UA 0.097 million (0.94% of the project cost).

Table 2.3
Project Cost by Component

COMPONENTS	COSTS UA Thousand			COSTS in CFAF Thousand		
	FOREIGN EXCHANGE	LOCAL CURRENCY	TOTAL	FOREIGN EXCHANGE	LOCAL CURRENCY	TOTAL
A INFRASTRUCTURE DEVELOPMENT	5 778	1 267	7 045	4 162 071	912 985	5 075 056
B - INSTITUTIONAL SUPPORT	860	176	1 036	618 944	126 772	745 716
C - PROJECT MANAGEMENT	723	148	871	520 631	106 636	627 267
BASIC COST	7 361	1 591	8 952	5 301 646	1 146 393	6 448 039
Physical Contingencies	515	111	626	371 115	79 597	450 712
Price escalation	638	138	776	457 769	99 530	557 299
TOTAL COST	8 514	1 840	10 354	6 130 530	1 325 520	7 3456 050

Table 2.4

Project Cost by Source of Financing

SOURCES OF FINANCING	FOREIGN EXCHANGE IN UA THOUSAND	LOCAL CURRENCY IN UA THOUSAND	TOTAL IN UA THOUSAND	%
ADF	6 130	870	7 000	67.61
RWSSI	2384	616	3 000	28.97
Government	0	97	97	0.94
BENEFICIARIES	0	257	257	2.48
TOTAL	8 514	1 840	10 354	100
%	82.23	17.77	100	

Table 2.5

Project Cost by Expenditure Category

EXPENDITURE CATEGORY	FOREIGN EXCHANGE IN UA THOUSAND	LOCAL CURRENCY IN UA THOUSAND	TOTAL IN UA THOUSAND
Works	4 970	1 102	5988
Goods	1 284	263	1 547
Services	876	179	1 055
Operation	231	47	278
TOTAL	7 361	1 591	8 952
Physical contingencies	515	111	626
Price escalation	638	138	776
GRAND TOTAL	8 514	1 840	10 354

Table 2.6

Expenditure Schedule by Component

COMPONENT	2010	2011	2012	2013	TOTAL
Infrastructure Development	800	2 127	2 837	1 281	7 045
Institutional Support	124	311	414	187	1 036
Project Management	105	261	348	157	871
TOTAL	1 029	2 699	3 599	1 625	8 952
Physical contingencies	73	189	251	113	626
Price escalation	231	186	248	111	776
GRAND TOTAL	1225	3074	4108	1850	10 354

2.5 Project Area and Beneficiaries

2.5.1 The project area comprises the three divisional headquarters, namely Berberati, Bouar and Bossangoa and their surrounding rural areas. There are 43 rural villages concerned, with an estimated population of 22 000 in 2008. The three divisional headquarters are covered by the Central Africa Water Distribution Company (SODECA) network. Their choice was based on the following criteria: (i) low drinking water access rate (32% for Berberati; 24% for Bouar, 31% for Bossangoa); (ii) incidence of poverty (41% in Berberati, 55% in Bouar and nearly 79% in Bossangoa); (iii) large population estimated in 2008 at 86 251 for Berberati, 44 327 for Bouar, 40 042 for Bossangoa; (iv) economic potential of these areas; (v) stability of the region; and (vi) relative security of these areas compared to the rest of the country. At project full development by 2020, the population of the three towns will grow to a total 220 365.

2.5.2 Housing in these towns is characterized by the predominance of the simple traditional dwellings (covered with thatch). There are hardly any industries in these towns. Agriculture is the main source of income. However, the project area has other major economic assets. It is one of the richest in diamond and timber in CAR. The main source of drinking water in the project area is the traditional well (40%) and the standpipe (27%), all community-managed. The most common method of paying for water (74%) is per pan or pail. Thus, a big segment of the surrounding population does not have private connections or standpipes ceded by SODECA.

2.5.3 The main expected outputs are improved and sustained access to drinking water (from 32% to 100% in 2020) and sanitation services (from 10% to 20% in 2020), and a positive change of attitude and behaviour to hygiene and health by 80% of the population. The average prevalence rate of water-borne and sanitation-related diseases will reduce by more than half over the period (from 22% to 10%). The project will also benefit the decentralized structures of the DGH, municipalities, decentralized directorates of the ministries of health and social affairs, economic interest groups (EIGs) and women's associations which will participate in its implementation. The project will generate more than 280 jobs (60% of them for women) during the implementation phase and after completion through micro-businesses, especially in the sanitation sector.

2.5.4 The project will help to address the drinking water supply and sanitation needs of about 220 365 people in urban areas and 39 550 people in surrounding rural areas, i.e. a total 259 915 people. It will also contribute to improving the hygiene and health conditions of about 160 000 people.

2.6 Participatory Approach to Project Identification, Design and Implementation

2.6.1 The project design adopted the participatory approach. After a mission to review the status of the water and sanitation sector in early 2007, the Bank identified Government priorities and, with funding from the African Water Facility, backed the Drinking Water Supply and Sanitation Study in CAR's sixteen divisional headquarters conducted between 2007 and 2009. The study also followed the participatory approach. Apart from surveys carried out among the population concerned and future beneficiaries, divisional and municipal authorities also attended launching and validation workshops on the two phases of the study (diagnosis and definition of priority selection criteria, preliminary and final design). Locally elected officials were also involved in the workshops. The Bank participated in all the restitution workshops, in addition to undertaking a field trip to the project areas, meeting and discussing with the beneficiaries.

2.6.2 This approach took into account the investment priorities expressed by the population and local authorities (priority to drinking water) and led to the adoption of technical options that reflect the socio-economic realities of targeted beneficiaries, especially with regard to sewage and solid waste disposal. The project implementation will follow the participatory approach through which the beneficiaries will contribute to the works and share in managing water and sanitation facilities via user associations and economic interest groups (EIGs). Moreover, judging from Government's resolve to promote decentralization and devolution, field activities will be managed and monitored by municipal councils and DGH decentralized services.

2.7 Consideration of Bank Group Experience and Lessons in Designing the Project

2.7.1 In 2007, the Bank carried out a review of the water and sanitation sector in CAR. In February 2009, the Bank also conducted a portfolio review which assessed the status of ongoing projects in CAR in detail. The study which underpinned the preparation of this project was managed satisfactorily by a Unit set up within the General Directorate of Water Resources. Furthermore, in March 2008, the World Bank and the Bank jointly carried out a country performance review. The following lessons accrued from these experiences: (i) difficulties in financing the counterpart contribution hamper project implementation; (ii) the procurement system is inadequate; (iii) the number of local service providers is limited; and (iv) foreign firms show little interest in bidding due to the country's post-conflict situation.

2.7.2 The above lessons were taken into account in designing the project, especially in terms of (i) fixing and spreading the counterpart contribution in project financing (the said contribution will be quite low since the Government will only finance compensation to affected persons); (ii) procurement arrangements which provide for support from an international expert to assist and train senior staff of the MMEH Procurement Unit; (iii) a key capacity building component for structures involved in implementing the project; and (iv) very simple design of works, thanks to which local companies will implement them without any problem if they are awarded a works contract.

2.8 Key Performance Indicators

2.8.1 There is no national programme or system for monitoring and evaluating the drinking water supply and sanitation sector. However, the DGH has a department in charge of project monitoring and evaluation with two units which, from every indication, lacks the necessary human and material resources. The project will support the establishment of a project monitoring/evaluation system by putting a monitoring/evaluation expert at the disposal of the Project Unit. Since the baseline data is available, monitoring/evaluation will be based on updated data collected through structures involved in implementing the project (DGH, municipal councils, Ministry of Health, consulting engineers, etc.).

2.8.2 The key monitoring and evaluation indicators for the project are:

- (i) *Impact indicators*: the project will contribute to the achievement of the MDGs in CAR, especially with regard to access to drinking water, sanitation and health, as well as poverty reduction. Such contribution will be monitored using indicators such as the poverty index, incidence of water-borne diseases, etc.

- (ii) *Output indicators*: the outputs directly related to project implementation involve an increase in the drinking water and sanitation access rate in the three divisional headquarters concerned. The output indicators are:
- Increase in the drinking water access rate in the three divisional headquarters and their surrounding rural areas from 32% in 2008 to 100% in 2015 and beyond;
 - Average increase in the sanitation services access rate from 10% in 2007 to 20% in 2015;
 - A positive change of behaviour towards hygiene by 80% of the population (52% of whom are women) in the project area;
 - At least 280 permanent jobs (60% for women) are created.
- (iii) *Outcome indicators*: the main outcome indicators arising from project activities in the project area are:
- Number of water production, storage and transportation facilities rehabilitated and constructed (boreholes, water intake, treatment stations, overhead tanks and water pipes);
 - Number of standpipes built (60 standpipes);
 - Number of hand-operated pump boreholes (48 boreholes and two standalone water points);
 - Number of private connections with meters (2 300 connections) made;
 - Number of public latrines built (73 latrine blocks);
 - Number of controlled landfills developed (three landfills of a surface area of two hectares each);
 - Number of persons sensitized and educated on hygiene, the environment and health (160 000 people);
 - Number of senior staff of the DGH, SODECA, municipal councils and regional directorates of health and social affairs trained.

III. PROJECT FEASIBILITY

3.1 Economic and Financial Performance

3.1.1 The project has multiple financial and socioeconomic benefits. It will help to guarantee drinking water supply to the population of three major towns and nearby villages; improve hygiene, sanitation and health; and ensure better profit sharing among economic agents (State, companies, sector operators, consumers, etc.) Given its social character and the

resources put at its disposal by way of grants and contributions from the beneficiaries, the priority objective of the project will be to guarantee financial balance for operators and ensure the sustainability of facilities.

3.1.2 Economic return is measured through benefits that the community derives from the supply of drinking water, access to sanitation services, time gained by shortening the distance covered and time used to fetch water, creation of direct and indirect jobs, reduction in the prevalence of water-borne diseases and improvement in general living conditions. The economic rate of return (ERR) which reflects these benefits stands at 22.4%. This rate is calculated based on investment and operating costs, income generated from selling water and collecting sanitation fees, converted into economic costs and benefits, plus other quantifiable benefits represented by: (i) the value of working days generated during the project implementation phase; (ii) easing of the strain involved in fetching water in terms of number of hours gained and put into more useful purposes; and (iii) savings on the health budget owing to the reduction of water-borne diseases. Assuming the opportunity cost of capital is 12%, the net present value stands at CFAF 4 billion, indicating a significant impact for all economic agents, including the beneficiaries. The detailed calculation of the economic rate of return is appended to this report.

3.2 Environmental and Social Impact

3.2.1 *Environment:* the project is classified under Environmental and Social Category II since it is a small-scale operation for water supply and sanitation in each of the towns, and will essentially rehabilitate existing infrastructure. The displacement of the population and their property is limited within each locality and does not warrant a change of project category (farms in the Nawouya spring basin in Berberati and in the water catchment area in Bouar; a few houses in Berberati and Bossangoa). Thus, in Berberati, some farmers cultivating the land in the Nawouya spring basin will be moved, the area fenced off and trees planted. In Bouar, it is necessary to protect the basin of the water intake site on the river and relocate the farmers currently cultivating the site. In Bossangoa, 15 houses accommodating 135 people will be destroyed. The harmful environmental and social impacts specific to the project site as identified in the Environmental and Social Impact Assessment (ESIA) prepared this year could be minimized by applying the mitigative measures presented in the Environmental and Social Management Plan (ESMP). After the destruction of houses and farms, water resources and sites will be fenced round and the plant cover restored. The cost of mitigative measures is included in the project cost and stands at UA 0.270 million, including UA 0.097 million for compensation payment.

3.2.2 *Climate change:* the effects of climate change will be more severe in Bossangoa which is located in a more arid zone with higher evaporation and evapotranspiration. The other two towns covered by the project are found in less arid zones with reduced risk of sensitivity to climate change. In each town, the ground and surface water potential was analysed based on available information on these resources and the climate trend observed in recent years. The analysis took into consideration projected needs by 2025 for each town. Depending on the capacity of each type of resource, the most suitable production source was chosen. In some cases, it was agreed that two resources should be combined to meet the optimal water needs by 2025. Thus, in Berberati and Bossangoa, water will be tapped from groundwater sources. In Bouar, water will come from a combination of both surface and groundwater sources.

3.2.3 *Gender issues:* the task of fetching water is performed by women in 76% of cases, 57% of which girls, compared to 24% of cases by men, 34% of which boys. The average distance covered to fetch drinking water is three kilometres. The implementation of this project will enable women and children to: (i) reduce the distance to 500 metres and ease the strain that comes with water fetching; (ii) participate in productive social and economic activities by making good use of the time gained; (iii) increase their income thanks to the jobs (at least 280 jobs, including 60% for women) to be created, through 14 men's and women's associations involved in raising awareness on health and sanitation issues in the markets of the three divisional headquarters, 43 rural borehole and 60 standpipe management committees; (iv) reduce maternal and child morbidity through improved hygiene; (v) improve the school environment for girls who will now have the opportunity to attend schools with toilets that respect hygienic standards and guarantee intimacy; and (vi) increase the female literacy rate in rural areas which currently stands at 15%. For better ownership by all stakeholders, the project will set up a communication team, step up IEC activities and enlist the participation of the Ministry of Social Affairs, National Solidarity and the Family. All these structures will be trained on hygiene and sanitation, management, governance, the environment and gender issues. Drinking water user associations and committees will be sensitized on hygiene and sanitation, HIV/AIDS, malaria control and gender issues to enable them to act as relays in markets, neighbourhoods and villages covered by the project.

3.2.4 In households, women will be made to understand the importance of disposing their household wastes in bins. Community heads and community development workers of the Ministry of Social Affairs, National Solidarity and the Family will be called upon to raise awareness among households and districts. In markets, male and female traders' associations (called "Coli and Wali Gara") will, in collaboration with councils, be responsible for managing water points and latrines, and raising awareness on hygiene and sanitation in markets. To that end, the associations will ensure the daily collection of dues from sellers, latrine user fees and revenue from the sale of water. Sixty percent (60%) of the funds collected will be allocated to municipal councils for the renovation and replacement of infrastructure and 40% to associations for infrastructure maintenance, cleaning up markets and raising awareness among users. The income and living conditions of about 1 400 Coli and Wali Gara members will be improved. With the provision of water and appropriate toilet facilities for girls and boys, it is expected that the efficiency of the school system will improve, especially for girls. Greater efficiency of the school system will ultimately have a direct impact on the literacy rate, particularly for women which is very low (averaging 25.9%). The project will also have a positive impact on the promotion of gender equality as it will allow for the effective representation of women in user associations and management committees.

3.2.5 *Social issues:* apart from increased access to drinking water and sanitation services and its positive effects in improving the well-being of the population (easing the burden of fetching water especially by women and children and fostering a healthier living environment), the project is an opportunity for job creation during the implementation phase and in the long run. More than 280 long-term jobs (of which 60% or 168 jobs reserved for women) will be created for managing standpipes and sanitation activities through user associations and economic interest groups (EIGs). These structures are already operational: user associations (male and female traders) carry out sensitization on hygiene and sanitation in markets, while EIGs are involved in the construction of water and sanitation facilities through projects managed by NGOs and UNICEF in the villages. To facilitate direct access to water at affordable cost for the poor segments of the population of municipalities concerned, the project plans to fully finance 2 300 low-cost connections, in addition to

increasing the number of standpipes from 82 today to 142. Subscribers will contribute 30% of the connection cost, refundable over three years. The sums collected will enable SODECA to pursue a policy of partially subsidizing new subscriptions. Connections will be made upon request submitted to SODECA. The related selection criteria have been developed. SODECA will present the files of eligible persons to the project for the disbursement of funds and putting the relevant connections in place. Furthermore, the price per m³ should not be above the current average of CFAF 500 per m³ for standpipes. The support to be provided to water control laboratories will also help guarantee the quality of water sold to the population. Lastly, it is expected that 160 000 people (52% of them women), including primary school pupils, will be sensitized on hygiene, the environment and health, and that they will adopt positive behaviour in that regard. Such behavioural change will contribute to reducing morbidity associated with water-borne diseases which is expected to drop from 20% (currently) to 10% in the medium term (2015).

3.2.6 *Forced resettlement*: the proposed operation which consists essentially in rehabilitating and extending drinking water supply facilities and managing solid wastes should not entail forced displacements or resettlements. However, the protection of water sources as well as laying of water pipes could lead to the displacement of one farm in Berberati and a few traditional houses in Bouar. To make up for any losses the population may suffer, the project provides for the payment of compensation to persons affected. The amounts to be paid out as compensation will be sufficiently low, in order not to hamper project implementation.

IV. PROJECT IMPLEMENTATION

4.1 Implementation Arrangements

4.1.1 The Donee is the Government of the Central African Republic. The General Directorate of Water Resources in the Ministry of Mines, Energy and Water Resources (MMEH) will be the project executing agency, through the Department of Water Infrastructure, whose Director will be appointed as National Coordinator. S/he will be assisted by a team comprising appropriate experts at the central and local levels. At the central level, the team will include one technical assistance staff specialized in development project management, a procurement expert, a monitoring/evaluation expert, a sociologist specialized in IEC, an accountant and support staff (a secretary, a driver, a messenger, and two security guards). The technical assistance staff, the procurement expert and the accountant will be funded by the project. The other experts will be seconded from other DGH departments. The project team will be subject to a performance contract that sets the requisite goals in terms of the physical and financial implementation of project components as per the agreed schedule. The annual renewal of this contract will depend on the team's performance rating.

4.1.2 The project will be implemented under the supervision of a Steering Committee with one representative each from:

- The Ministry of Mines, Energy and Water Resources (MMEH), in charge of managing and coordinating water and sanitation sector activities;
- The Ministry of Economy, Planning and International Cooperation;
- The Ministry of Finance and Budget;

- The Ministry of Interior and Decentralization;
- The Ministry of Public Health, Population and AIDS Control;
- The Ministry of Social Affairs, National Solidarity and the Family;
- The Ministry of Environment and Ecology;
- The Central Africa Water Distribution Company (SODECA);
- Civil society organizations (one for NGOs, one for women's associations).

The Committee will meet at least twice a year and whenever necessary. It will be responsible for coordination between various stakeholders directly or indirectly involved in the sector, with a view to ensuring consistency in decisions and technical choices, and the proper conduct of project activities. Minutes of meetings as well as periodic reports of the Committee will be forwarded to the Bank for follow up.

4.1.3 At the local level, DGH Regional Directors will be appointed as focal points for Berberati, Bouar and Bossangoa, and will be charged with coordinating project field activities. The Regional Directors will set up a Monitoring Committee for each town made up of representatives from SODECA, the Municipal Councils, the Ministry of Public Health, Population and AIDS Control, the Ministry of Social Affairs, National Solidarity and the Family, the Ministry of Environment and Ecology; and a representative of the Men and Women Traders' Association. The role and tasks of each of the structures involved in the project, the DGH organization chart and the project organization chart are attached to this report as annex.

4.1.4 *Procurement arrangements:* since the reform of the national procurement system started only recently with: (i) the enactment in June 2008 of the law on the public procurement code; (ii) the establishment of a priori control/regulation structures and procurement departments in four pilot ministries during the last quarter of 2008; and (iii) the adoption during the first quarter of 2009 of standard bidding documents and the procedures manual, it is difficult to judge the effectiveness or otherwise of the said system until it is assessed after a two-year transitional period. Thus, all procurement of goods, works and consultancy services financed with the Bank's resources will be conducted in accordance with Bank *Rules of Procedure for Procurement of Goods and Works* or *Rules of Procedure for the Use of Consultants*, as applicable, using standard Bank bidding documents. The General Directorate of Water Resources (the executing agency) will be responsible for awarding all project contracts as described in detail in the annex to this report. It will use the Procurement Department (SPM) of the Ministry of Public Health, Population and AIDS Control.

4.1.5 *Financial management:* the project plans to set up an accounting section with exclusive responsibility for financial management, record keeping, preparation and monitoring of disbursement requests, management of special accounts and contracts, and drafting of periodic financial reports. An accountant with proven experience in managing development projects will be recruited. An accounting firm will prepare an administrative, financial and accounting procedures manual. Efficient software will be procured and configured to meet the specific needs of the project.

4.1.6 The Grant resources will be disbursed in accordance with Bank rules of procedure. The two methods adopted are: (i) the special account method, which will be used to settle the operating costs of the project management team, contracts of amounts not exceeding UA 100 000 and community works. Monthly certificates for payment will generally be issued to contractors under the said contracts. The funds will be disbursed in the form of advance to be deposited into a special account for Grant resources and into another account for RWSSI resources. The two accounts will be opened in the name of the project in a bank acceptable to the ADF; and (ii) the direct payment method, which will be used for paying consultants and suppliers for amounts above the equivalent of UA 20 000.

4.1.7 The financial statements of the project and the special accounts will be audited yearly by an external auditing firm deemed acceptable to the Bank. The TORs will be prepared in accordance with the Bank's standard model and will cover financial, organizational, management and control aspects. The auditor will be requested to prepare an opinion letter addressed to project management on the quality of book keeping, justification of various transactions on the special account, and identification of weaknesses or shortcomings with a view to suggesting corrective measures. The audit reports will be forwarded to the Bank latest six months following the end of the financial year.

4.2 Monitoring

4.2.1 The project implementation phase is scheduled to span 48 months, from 2010 to 2013. This schedule is considered reasonable, given the ordinary nature of works and the fact that the lots are spread over three towns and their surrounding rural villages. The DGH will be the main structure in charge of monitoring project implementation and will prepare quarterly reports on the status of physical and financial execution, in accordance with the presentation method recommended by the Bank. Using the baseline data compiled during the feasibility study, the monitoring of project outputs will concern the outcome, effect and impact indicators as outlined in the logical framework and Section 2.8 of this report, disaggregated by gender. The Bank will monitor the project through its supervision missions, DGH progress reports, financial statements and the mid-term review scheduled for late 2012. The Cameroon Regional Office which covers CAR will be called upon to help in managing and monitoring the implementation by providing the necessary assistance with respect to procurement, disbursement and financial management procedures. A project implementation manual will be prepared based on the available detailed project design.

4.2.2 The provisional implementation schedule presented at the beginning of this report is summarized as follows:

<u>Duration</u>	<u>Stages</u>	<u>Monitoring Activities/Feedback loop</u>
November 2009 1 st Quarter 2010	Grant Approval Issuing of Consultant PD	Bank Board of Directors Preparation by the DGH and verification by the Bank
2 nd Quarter 2010 3 rd Quarter 2010	Bid Appraisal Preparation Issuing of works bidding docs.	by the DGH and verification by the Bank Preparation by the DGH and verification by the Bank
4 th Quarter 2010	Award of contracts	Preparation by the DGH and verification by the Bank

2011 – 2013	Implementation of works	Works executed by contractors/ Works monitoring by the Consulting Engineer and verification by the DGH
2012	Implementation of works	Mid-term review and corrective measures
June 2014	DGH Completion Report	Preparation by the DGH
September 2014	ADF Completion Report	Preparation by the Bank

4.3 Governance

4.3.1 The governance problems observed in CAR mainly stem from weak procurement and project financial management capacity. The ongoing procurement system reforms are not yet completed and the decentralization adopted by the country is not fully effective. In order to reduce the risks related to weak governance, the project includes provision to strengthen the capacity of government departments and various stakeholders involved in project implementation and operation both at the central and local levels. In particular, the project plans to recruit two technical assistance staff (one procurement expert and one project management expert) to support the DGH. Furthermore, the Bank is financing an Economic Reform Support Programme expected to create an enabling framework for good governance.

4.3.2 Concerning corruption and abuse of power, the Government has taken a series of measures indicative of its determination to tackle the scourge. It has developed an anti-corruption strategy, adopted a new forestry code and a revised mining code, strengthened the anti-corruption legal framework and entrenched transparency in natural resource management.

4.4 Sustainability

4.4.1 Sustainability largely depends on the capacity of the human and material resources charged with running the project after its completion. The revenue generated by the project and collected by SODECA and the Municipal Councils are enough to cover the recurrent costs of operation, repair and maintenance of the facilities developed. The project will provide these stakeholders with sufficient resources in terms of equipment, materials and training to enable them to perform their duties.

4.4.2 In addition to the revenue collected by SODECA and the Municipal Councils, the Government has allocated a budget line for municipal investment projects, especially infrastructure rehabilitation and maintenance. Thus, an account has been opened exclusively for viable projects presented by Municipal Councils. This account will be funded with collections from Councils located in mining regions. It has also been decided that each Council will earmark 5% of its budget for sanitation activities.

4.4.3 Lastly, Government's adoption of the legal, organizational and institutional framework for the drinking water supply and sanitation (DWSS) sector is an incentive capable of spurring donors and private operators to contribute to sector financing and development. The African Water Facility (AWF) recently approved an institutional support aimed at reforming the sector, setting up various bodies provided for under the water law and strengthening the capacity of the structures in charge of the sector.

4.5 Risk Management

4.5.1 Risks: three main risks that are likely to have a negative impact on project implementation and operation have been identified, namely: (i) the country's stability and security situation; (ii) institutional weakness of sector stakeholders; and (iii) inadequate ownership by project beneficiaries. It is a fact that the insecurity that reigned for over a decade has hampered development efforts and initiatives. The main structures in charge of implementing the project, namely the DGH, SODECA and the Municipal Councils, are characterized by inadequate human and material resources and lack of experience in managing donor projects or programmes. Lastly, in spite of the participatory approach adopted during the project preparation phase, the atmosphere of customer distrust generated by SODECA's irregular drinking water supply, coupled with lack of financial resources at Municipal Council level to cover sanitation services as provided for under the decentralization instruments, are threats to project sustainability.

4.5.2 Mitigative measures: (i) concerning the country's stability and security situation, recent political developments – for instance the organization of presidential elections and the inclusive dialogue of December 2008 - are likely to promote an atmosphere of peace and stability, hence mitigating that risk. In 2010, presidential elections will be organized, followed by legislative and municipal elections. Mayors, who up to now are appointed, will henceforth be elected and, consequently, it will be incumbent on them to ensure rigorous and equitable management of the concerns of their citizens and the business of councils, which are the basic units for social stability; (ii) as for the risk of institutional weakness, the mitigative measures envisaged under the project are multifaceted institutional capacity building for the DGH, SODECA and Municipal Councils through training, provision of office equipment and vehicles. These measures will complement the support earmarked by the African Water Facility for the pursuit of reforms initiated since 2003 and for setting up various structures under the legal framework and necessary for the harmonious and sustainable development of the DWSS sector; and lastly (iii) for the risk concerning the ownership of project outputs by beneficiaries, the participatory approach will be pursued. Mayors and Municipal Councils will participate in project implementation even as the financial autonomy of Councils will be strengthened, with local authorities benefiting from a budget line of 5% of the council budget allocated for sanitation. Beneficiaries will also be mobilized and sensitized to participate in the works, manage and maintain the infrastructure through IEC activities.

4.6 Knowledge Development

4.6.1 The project implementation will contribute to enriching DGH's experience in executing drinking water supply and sanitation projects in urban and rural areas. The involvement of SODECA agencies and the Municipal Councils in water resource management and utilization as well as the participation of various segments of the population and their sensitization on project choices are major factors for the success of the project. The DGH will gain from its experience within the country and see its capacity strengthened, thus having an impact by disseminating same to other towns studied but awaiting financing. The project intends to set up, train and equip regional communication teams to raise the people's awareness on hygiene and sanitation. Drinking water facility and latrine management committees will be established and trained in management, governance, conflict resolution and gender issues. User associations (men and women traders) and EIGs will be trained and sensitized for social mobilization in markets and villages covered by the project. Hence, the

project implementation will help to develop knowledge on water resource management for optimal use.

V. LEGAL FRAMEWORK

5.1 Legal Instrument

5.5.1 *Conditions precedent to grant effectiveness:* entry into force of the Grant Protocol of Agreement shall be subject to its signature by the ADF and the Government of the Central African Republic.

5.5.2 *Conditions precedent to first disbursement of the grant:* the ADF shall make the first disbursement of the ADF Grant and RWSSI Grant resources only if, in addition to entry into force of the Protocol of Agreement, the Donee fulfils the following conditions to ADF satisfaction:

- (a) Provide to the ADF evidence of paying compensation to the people affected by the project;
- (b) Provide to the ADF evidence of opening a special account into which the ADF Grant resources will be deposited and another account into which the RWSSI Grant resources will be deposited. The two accounts shall be opened in a bank acceptable to by the ADF.
- (c) Provide to the ADF evidence of nominating the DGH senior officers assigned to the project.

5.2 Conformity with Bank Policies

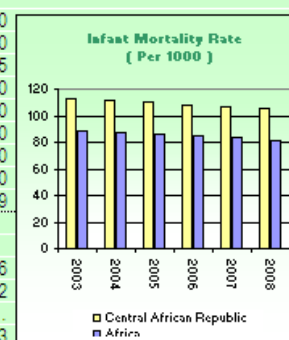
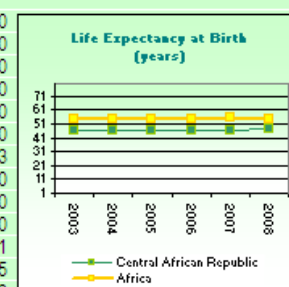
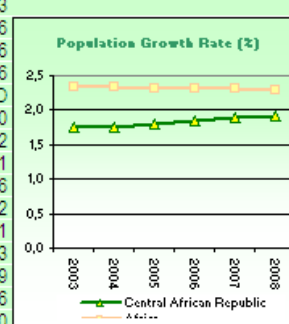
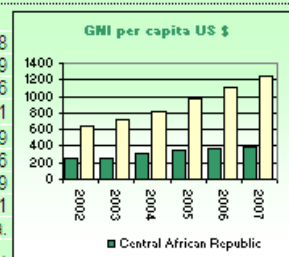
This project is in line with all applicable Bank policies.

VI. RECOMMENDATION

Bank Management recommends that the Board of Directors approve the proposal to award a UA 7 million ADF Grant and a UA 3 million RWSSI Trust Fund Grant to the Government of the Central African Republic for the purpose and under the conditions set forth in this report.

Comparative Socioeconomic Indicators

	Year	Central African Republic	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)		623	30 323	80 976	54 658
Total Population (millions)	2008	4	986	5 521	1 229
Urban Population (% of Total)	2008	38,5	39,1	44,2	74,6
Population Density (per Km ²)	2008	7,1	32,6	66,6	23,1
GNI per Capita (US \$)	2007	380	1 226	2 405	38 579
Labor Force Participation - Total (%)	2005	44,1	42,3	45,6	54,6
Labor Force Participation - Female (%)	2005	46,2	41,1	39,7	44,9
Gender -Related Development Index Value	2005	0,368	0,482	0,694	0,911
Human Develop. Index (Rank among 174 countries)	2006	178	n.a.	n.a.	n.a.
Popul. Living Below \$ 1 a Day (% of Population)	2003	50,2	34,3	25,0	
Demographic Indicators					
Population Growth Rate - Total (%)	2008	1,9	2,3	1,4	0,3
Population Growth Rate - Urban (%)	2008	2,4	3,3	2,5	0,6
Population < 15 years (%)	2008	40,9	56,0	40,0	16,6
Population >= 65 years (%)	2008	3,9	4,5	3,3	15,6
Dependency Ratio (%)	2008	84,3	78,0	52,8	49,0
Sex Ratio (per 100 female)	2008	96,5	100,7	96,7	106,0
Female Population 15-49 years (% of total population)	2008	24,2	48,5	53,3	47,2
Life Expectancy at Birth - Total (years)	2008	47,0	54,3	65,8	77,1
Life Expectancy at Birth - Female (years)	2008	48,5	55,5	67,6	80,6
Crude Birth Rate (per 1,000)	2008	35,4	35,8	22,2	11,2
Crude Death Rate (per 1,000)	2008	17,0	12,4	8,1	10,1
Infant Mortality Rate (per 1,000)	2008	104,9	81,8	51,4	6,3
Child Mortality Rate (per 1,000)	2008	178,5	134,5	77,4	7,9
Total Fertility Rate (per woman)	2008	4,8	4,6	2,7	1,6
Maternal Mortality Rate (per 100,000)	2005	980,0	683,0	450,0	9,0
Women Using Contraception (%)	2006	19,1	29,7	61,0	75,0
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2005	4,5	39,6	78,0	287,0
Nurses (per 100,000 people)*	2004	28,8	120,4	98,0	782,0
Births attended by Trained Health Personnel (%)	2006	53,4	51,2	59,0	99,0
Access to Safe Water (% of Population)	2006	66,0	64,3	84,0	100,0
Access to Health Services (% of Population)	2005	...	61,7	80,0	100,0
Access to Sanitation (% of Population)	2006	31,0	37,6	53,0	100,0
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2006	6,3	4,5	1,3	0,3
Incidence of Tuberculosis (per 100,000)	2006	6,3	315,8	275,0	19,0
Child Immunization Against Tuberculosis (%)	2007	90,0	83,0	89,0	99,0
Child Immunization Against Measles (%)	2007	99,0	83,1	81,0	93,0
Underweight Children (% of children under 5 years)	2006	29,3	25,2	27,0	0,1
Daily Calorie Supply per Capita	2004	2 004	2 436	2 675	3 285
Public Expenditure on Health (as % of GDP)	2007	1,3	2,4	1,8	6,3
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2008	81,7	99,6	106,0	101,0
Primary School - Female	2008	69,5	92,1	103,0	101,0
Secondary School - Total	2007	36,2	43,5	60,0	101,5
Secondary School - Female	2005	...	40,8	58,0	101,0
Primary School Female Teaching Staff (% of Total)	2003	18,0	47,5	51,0	82,0
Adult Illiteracy Rate - Total (%)	2005	...	38,0	21,0	1,0
Adult Illiteracy Rate - Male (%)	2005	...	29,0	15,0	1,0
Adult Illiteracy Rate - Female (%)	2005	...	47,0	27,0	1,0
Percentage of GDP Spent on Education	2006	1,4	4,5	3,9	5,9
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2005	3,1	6,0	9,9	11,6
Annual Rate of Deforestation (%)	2005	...	0,7	0,4	-0,2
Annual Rate of Reforestation (%)	2005	...	10,9
Per Capita CO2 Emissions (metric tons)	2006	0,1	1,0	1,9	12,3



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

last update : septembre 2009

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

Note : n.a. : Not Applicable ; ... : Data Not Available.

Table of ADB Portfolio in the Country

Sectors/Operations	Source	Amount Approved (UA million)	Amount Disbursed (UA million)	Duration (Years)	Disbursement Rate (%)
Economic Planning Capacity Rehabilitation Support Project (PARCPE)	ADF X Grant	3.3	2.038	2.4	23.89
Economic Reform Support Programme, Phase II (PARE II)	ADF X Grant	9.5	9.5	0.2	100
Drinking Water Supply and Sanitation Study (DWSS) in 16 Divisional Headquarters	AWF Grant	1.273	0.630	1.4	49.52
Douala-Bangui and Douala-Ndjamena Corridor Transport Facilitation Programme.	ADF X Grant	27.80	0	0.83	0
TOTAL /AVERAGE		41.873	12.176	1.2	29.08

Annex III

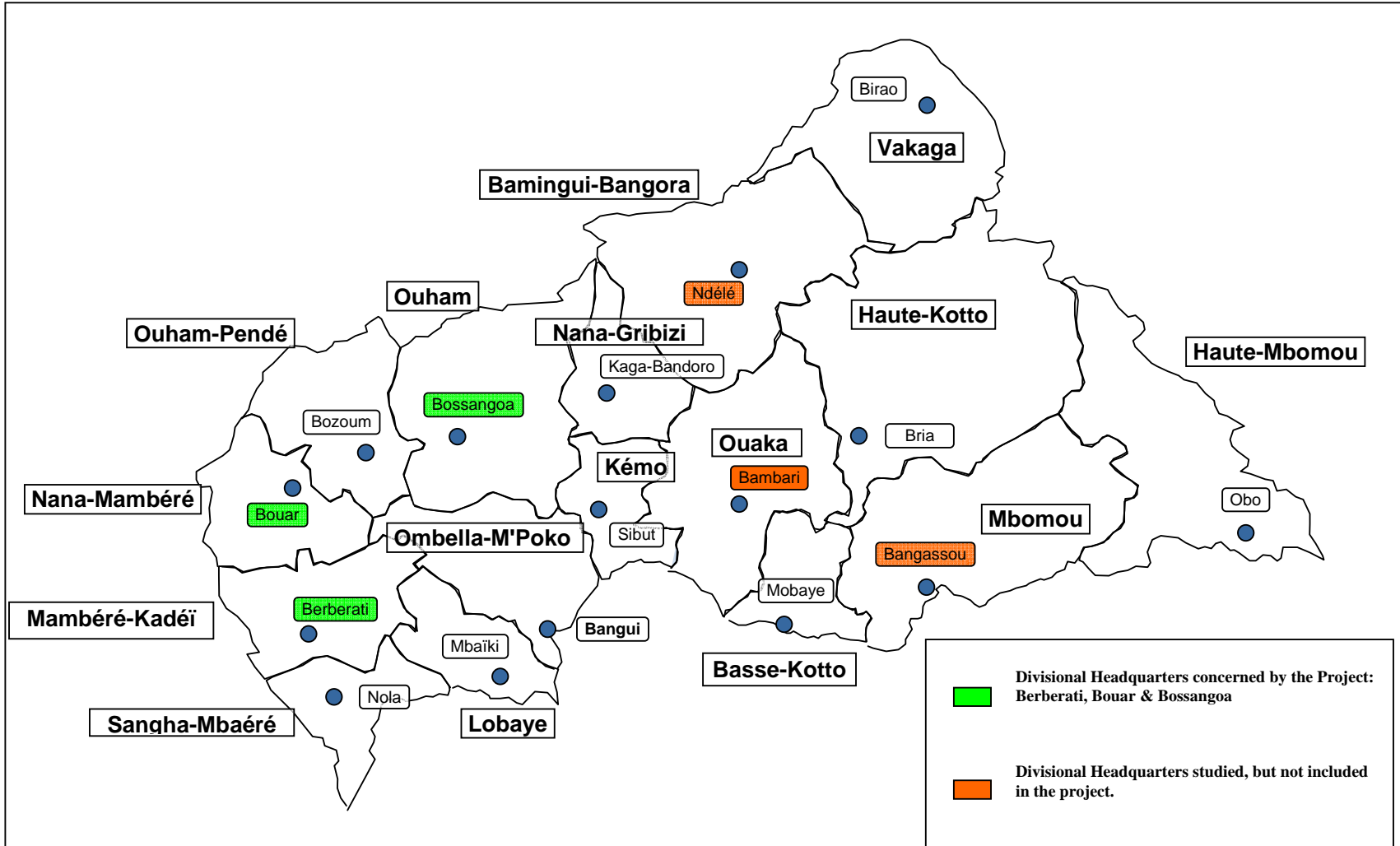
Main Related Projects Financed by the Bank and Other Donors

Sector Issues	Project	Implementation Status	Summary of Sector Projects
<i>World Bank Financing</i>			
Urban infrastructure deterioration	Emergency Urban Infrastructure Rehabilitation and Maintenance Project	Ongoing	Urban poverty reduction by rehabilitating basic infrastructure for water, sanitation, household wastes disposal, roads and institution building
<i>European Union Financing</i>			
Low access to drinking water and sanitation	Drinking Water Supply and Sanitation Project in Kemo Division	Ongoing	Construction of boreholes
Storm water evacuation problem	Bangui Urban Road Network Rehabilitation Project	Ongoing	Rehabilitation of the road network and drainage systems for storm water evacuation
Inadequacy of rural community development infrastructure	Development Poles Project	Launch underway	Construction of basic infrastructure (drinking water, sanitation, health centres, education, agriculture, access roads, etc.)
<i>ADB Financing</i>			
Low access to drinking water and sanitation services	Drinking Water Supply and Sanitation (DWSS) Study in the 16 Divisional Headquarters of CAR	Closing due in December 2009	Feasibility study on drinking water supply and sanitation in 16 divisional headquarters).
Inadequate basic community infrastructure	Community Development and Vulnerable Group Support Project	Under appraisal	-Improving basic community social services (drinking water, education, processing of agricultural produce, etc.)

Breakdown of the ADF Grant and the RWSSI Grant

Designation	ADF	RWSSI
A. WORKS	4.584	2.239
A1 Rehabilitation and extension of urban DWS	4.23	-
A2 Construction of simplified DWS facilities, SWPs, and HOP-boreholes	-	2.162
A3 Construction of latrines	-	0.077
A4 Construction and rehabilitation of offices	0.354	-
B. GOODS	1.655	-
B1 Equipment for emergency rehabilitation of DWS systems	1.026	-
B2 Equipment of DGH and SODECA laboratories	0.232	-
B3 Vehicles and solid waste handling equipment	0.397	-
B4 Computer hardware and office automation equipment	0.105	-
C. SERVICES	0.600	0.600
C1 Works supervision and monitoring	0.273	0.272
C2 Financial audit	0.080	0.080
C3 Technical assistance	0.128	0.128
C4 IEC campaigns	0.119	0.119
D. OPERATION	0.161	0.161
D1 Coordination structure	0.150	0.150
D2 Operating costs	0.011	0.011
TOTAL	7.0	3.0

Map of Project Area – DWSS in Three Divisional Headquarters and the Surrounding Rural Areas



This map has been provided by the staff of the African Development Bank Group exclusively for the use of the readers of the report to which it is attached. The names used and the borders shown do not imply on the part of the ADB Group and its members any judgment concerning the legal status of a territory nor any approval or acceptance of these borders.

**CENTRAL AFRICAN REPUBLIC - PROPOSAL FOR AN ADF GRANT OF UA 7 MILLION
AND A RWSSI GRANT OF UA 3 MILLION TO FINANCE THE DRINKING WATER SUPPLY
AND SANITATION IN THREE DIVISIONAL HEADQUARTERS AND SURROUNDING RURAL
AREAS
CORRIGENDUM**

Please find here below a **corrigendum** to the above-mentioned Appraisal Report.

Project Information Sheet: Add “BP 26, Bangui, CAR” to the address of the Executing Agency.

Paragraph 1.2.1 – Read “Law No. **06.001**” instead of “Law No. 06001”.

Paragraph 1.3.2: Read “The “Water and Sanitation” Sector Committee ... **with UNICEF as lead development partner**” instead of “The “Water and Sanitation” Sector Committee ...chaired by UNICEF.”

Paragraph 2.1.2, Table 2.1: Read “stadia” instead of “prisons”.

Paragraph 4.1.6: Read “*Two disbursement methods will be added, namely the reimbursement method and the reimbursement guarantee method*”.

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