AFRICAN DEVELOPMENT FUND

PROJECT FOR STUDIES AND PREPARATION OF A RURAL DRINKING WATER SUPPLY AND SANITATION PROGRAMME

COUNTRY: CAMEROON

APPRAISAL REPORT

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AHWS/RDGC

July 2018

Translated Document

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Currency Equivalents
(October 2017)

UA 1	=	USD 1.413
UA 1	=	EUR 1.195
UA 1	=	CFAF 785.250

Fiscal Year
1 January to 31 December

Weights and Measures

1 ton	=	2204 pounds
1 kilogram (kg)	=	2,200 pounds (lbs)
1 meter (m)	=	3.28 feet
1 millimeter (mm)	=	0.03937 inch
1 kilometer (Km)	=	0.62 mile
1 hectare (ha)	=	2.471 acres
Km²	=	Square kilometer
m3	=	Cubic meter
m²	=	Square meter
lm	=	Linear meter
Mm3	=	Million cubic meters
m3/h	=	Cubic meters per hour
l/s	=	Liter per second
l/d/inhab.	=	Liter per day per inhabitant

ACRONYMS AND ABBREVIATIONS

ACTFCN	Africa Climate Technology Finance Center and Network
ADF	African Development Fund
AfDB	African Development Bank
C2D	Debt Relief and Development Contract
CAMWATER	Cameroon Water Utilities Corporation
COCM	Country Office Cameroon
CSP	Country Strategy Paper
DD	Detailed Design
DWSS	Drinking Water Supply and Sanitation
EOD	Ending Open Defecation
FEICOM	Special Council Support Fund for Mutual Assistance
GESP	Growth and Employment Strategy Paper
KFW	Kreditanstalt für Wiederaufbau
LI	Labour-Intensive
MINEE	Ministry of Energy and Water Resources
OHADA	Organization for Harmonization of Business Law in Africa
PADY	Yaoundé City Sanitation Project
PCN	Project Concept Note
PCU	Project Coordination Unit
PD	Preliminary Design
PDHUPC	Cameroon Urban and Peri-Urban Hydraulics Master Plan
PNDP	National Participatory Development Project
RDWSS	Rural Drinking Water Supply and Sanitation Project
RWSSI	Rural Water Supply and Sanitation Initiative
SDGs	Sustainable Development Goals
SU-DWSS	Semi-Urban Drinking Water Supply and Sanitation Project in Environment
TFP	Technical and Financial Partners
UA	Unit of Account

PROJECT INFORMATION

Client Information

GRANTEE/BORROWER : Government of Cameroon

EXECUTING AGENCY : Ministry of Water Resources and Energy (MINEE) /Department of Water Resources Mobilization

Financing Plan

Source	Amount (UA Million)	Instrument
ADF	4.361	Loan
ACTFCN	0.126	Grant
Government	0.16	Counterpart
TOTAL COST	**4.647**	

Important ADF financial information– Loan Conditions for Mixed Financing Nations

Loan / Grant Currency	Unit of Account (UA)
Type of interest	1%
Interest rate margin	Not Applicable
Service fee	0.75% per annum on the loan amount disbursed but not yet repaid
Commitment fee	0.5% on the undisbursed loan amount 120 days after the signing of the Loan Agreement
Other Charges	Not Applicable
Maturity	Up to 30 years
Grace period	Up to 5 years
FRR, NPV (baseline scenario)	Not Applicable
ERR, NPV (baseline scenario)	Not Applicable

Term – Milestones (expected)

Concept Note Approval	October 2017
Project Approval	July 2018
Effectiveness	September 2018
Last Disbursement	December 2020
Completion	December 2020
Last Repayment	2050

PROJECT SUMMARY

Project Overview: This project sets out to conduct studies for the preparation of an investment program for the construction of 300 small-scale drinking water supply networks in the rural areas of Cameroon. Its goal is to enhance the efficiency of drinking water and sanitation sub-sector investments through research and capacity building activities, and provide information crucial to the management of Cameroon's water resources. Furthermore, it will contribute towards mobilizing the funds needed to finance the construction of the mini-networks for which the studies are conducted. In the long term, the program stemming from these studies will help improve the drinking water access rate in selected localities; improve sustainability, management, and regularity of water supply, monitoring and evaluation of existing water supply facilities and those to be built in the rural areas. The lead time of the project study is 30 months at an estimated total cost of UA 4.647 million, including activities related to the operating costs of the coordination unit. The project is 93.8% financed from ADF resources, 2.7% from the resources of the Africa Climate Technology Finance Centre and Network (ACTFCN), and 3.5% from counterpart funds of the Government of the Republic of Cameroon.

Needs Assessment: In Cameroon, a clear distinction is made between urban and peri-urban hydraulics and rural hydraulics. These two sub-components of the water and sanitation sub-sector are in dire need of funding. While urban hydraulics has a defined institutional set-up with a public-private partnership (leasing), the same is not true for the rural water sub-component. The rural sector faces a number of constraints, the foremost being: (i) the multiplicity of stakeholders and overlapping roles and responsibilities with insufficient coordination between the various stakeholders; (ii) multiplicity of water pump brands and unavailability of spare parts, thus posing major maintenance, servicing and service continuity challenges; (iii) inadequacy of financial resources for investment; (iv) limited contracting powers devolved by law to the local authorities (councils); and lastly (v) weak capacity of the structures responsible for managing the subsector.

This project constitutes the Government's response to the constraints on the development of the rural water sub-component. Its ultimate purpose is to prepare an extensive investment program in the sub-sector for improved quality at entry. Planned activities include (i) conducting in the ten Regions, DD engineering studies of 300 small-scale DWS systems selected from among the 350 PD studies to be conducted; (ii) conducting feasibility studies on solar energy utilization in DWS in a context of climate change and in the Cameroonian environment; (iii) conducting the study of water resources and setting up a national water information system; (iv) capacity enhancement for actors in the drinking water supply facilities chain; (v) implementation of Community-Led Total Sanitation (CLTS) in the six (6) regions not included in the pilot phase; (vi) establishing a management tool for rural water facilities and producing an inventory of rural water and sanitation facilities.

Target Beneficiaries: The project covers the entire Cameroonian territory. The 350 localities identified for the small-scale DWS studies were selected in the ten (10) regions of Cameroon. These localities are villages and chief towns of *Subdivisions* with under 5,000 inhabitants. Taking an average of 2,500 inhabitants per locality, the population covered by these studies could exceed 900,000. To this number, should be added the population of the targeted 200 localities (400,000 inhabitants) for the operationalization of Community-Led Total Sanitation (CLTS), aimed at eradicating open defecation (OD), and promoting best hygiene practices. The program under preparation thus targets over one million three hundred thousand (1.3 million) beneficiaries.

Additionally, stakeholder capacity building and facility inventory activities will reach all the subsector stakeholders.

Bank's Comparative Advantage and Value-Added: The rationale for the Bank's involvement is that the project provides a response to the Government's major concern in terms of DWSS, and to one of the Bank's five top priorities (High 5s) namely, "Improve the quality of life of the people". The new project will build on the achievements of recent interventions (RDWSS and SU-DWSS) to ensure their sustainability, sound management and ownership by the local communities who are the main beneficiaries. The project will be financed byADF. By financing feasibility studies, the Bank will ensure better quality at entry of a future program that would be financed from the AfDB window resources. Similarly, the Bank will build on the lessons learned from the implementation of previous projects, in particular the RDWSS and SU-DWSS, which clearly demonstrated that (i) the quality of studies was decisive for project success, and (ii) connecting water networks to existing rural power grids was no guarantee for steady water access, owing to recurrent and prolonged power outages. Furthermore, the use of solar-powered or gravitational water supply systems as envisaged for the future operation will help address this constraint.

Knowledge Building: The project is mainly a project study that will, through research or capacity building activities, provide crucial information for rural hydraulics management in Cameroon. The study on water resources assessment will provide knowledge on the status of Cameroon's water resources, climate change impact on the said resources and their potential for renewal. This will enable the local councils concerned to ensure efficient use of the water resources captured for them by the project. This exercise will enable better tracking of any adverse effects of climate change on renewable water resources. The capacity building of actors in the DWS facilities chain will provide DWSS facility construction stakeholders with useful insights into the limited lifespan of such facilities and the precautions required to ensure their sustainability in the future.

Results-Based Logical Framework

PROJECT - Cameroon **:** Project for Studies and Preparation of a Rural Drinking Water Supply and Sanitation Program

PROJECT GOAL: Enhance the efficiency of drinking water and sanitation sub-sector investments through research and capacity building activities, and through the collection and storage of data *crucial to the management* of Cameroon's water resources

	RESULTS CHAIN	PERFORMANCE INDICATORS (including CSIs)	BASELINE SITUATION	TARGET	MEANS OF VERIFICATION	ASSUMPTIONS/ RISKS/MITIGATION MEASURES
IMPACT	Contribute to the implementation of an investment program in the rural water supply and sanitation sector	DD studies of 350 DWS systems Inventory of rural hydraulics facilities	0(2017)	350 (2020) 1 (2020)	Sources: MINEE /INS Reports	**Assumption 1** Implementation of the GESP and continuation of water supply policy **Assumption 2** National political will to finance investments and effective involvement of donors **Risk 1**: Inexperience of selected consultants **Risk 2**: Weak mobilization of national counterpart funds **Risk 3**: Insufficient commitment of donors to providing the facilities studied **Risk 4:** Insecurity in Cameroon's North **Mitigation Measure 1**: Rigorous selection of consultants **Mitigation Measure 2**: Mobilization of the counterpart must be part of the Client's undertakings **Mitigation Measure 3** : Define and implement a financial resources mobilization plan to support the implementation of the project **Mitigation Measure** 4 : The successful implementation of national and regional measures to combat insecurity
OUTCOMES	Resources to finance the 300 DWS program are mobilized Improved knowledge of Cameroon's water resources	Financing rate of the 300 small-scale DWS networks studied	0% (2017)	100%(2020)	Annual assessment report of body in charge of project management	
	Improvement of the rural hydraulics facilities monitoring and evaluation system within MINEE	Rate of facilities catalogued	20%(2017)	100% 2020	Reports of the monitoring and evaluation structure	
		Water resources assessment rate	0% (2017)	100%		
	Improved access to basic sanitation infrastructure	Decrease in open defecation rate in areas selected for CLTS	0%	100%		
	Component					
OUTPUTS	Studies of 350 small-scale DWS networks	PD study reports on small-scale water networks	0 PD study	350 PD studies	PIU, supervision mission reports Report of the Round Table	
		DD study reports on small-scale water networks	0 DD study	300 DD studies		
		ITBs for 300 small-scale water networks	0 ITB	1 ITB		
	Feasibility study on solar energy use in Cameroon	Solar energy feasibility study report	0 (2017)	1 (2020)	PIU, supervision mission reports	
	Water resources assessment study	(Validated) Report on water resources is available	0 (2017)	1 2020)		
	Capacity enhancement of actors in the DWS facilities provision chain	(i) Company technicians trained (ii) ministry officials trained (iii) Municipal personnel trained (iv) NGO technicians trained	(i) 0 (ii) 0 (iii) 0 (iv) 0	(i) 20 (ii) 20 (iii) 20 (iv) 20	PIU, supervision mission reports	
	CLTS awareness campaign implemented in 200 localities	Number of EOD villages	0 (2017)	200 (2020)		
	National inventory of rural water supply and sanitation facilities and implementation of a monitoring and management tool for such works	A national rural hydraulics database is set up within MINEE and operational	(2017) 0	(2020) 1		
	FINANCIAL RESOURCES ADF Loan: UA 4.361 million, ACTFCN: UA 0.126 million – Government : UA 0.16 Million TOTAL UA 4.6487 million Studies : UA 2.887 million; Institutional Support UA 0.843 million; Project Management and Coordination UA 0.917 million					

ESTIMATED PROJECT IMPLEMENTATION SCHEDULE

YEARS	2017						2018												2019												2020											
ACTIVITIES\MONTHS	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
PRE- LAUNCH																																										
Board Approval																																										
Loan Effectiveness																																										
FEASIBILITY STUDY ON SOLAR ENERGY USE																																										
Conduct of Studies																																										
STUDIES ON THE 350 SMALL-SCALE DWS NETWORKS																																										
Preparation and Approval of ToR, LR and DDP																																										
Request for Proposals from LR Consultants																																										
Evaluation of Bids and Signing of Contracts																																										
Conduct of Studies																																										
WATER RESOURCES ASSESSMENT STUDIES																																										
Approval of TORs																																										
Signing of Agreement with IRGM																																										
Conduct of Studies																																										
INVENTORY AND DWS FACILITIES MONITORING TOOL																																										
Preparation and Approval of TORs																																										
Request for Proposals from LR Consultants																																										
Evaluation of Bids and Signing of Contracts																																										
Conduct of activities																																										
CAPACITATION OF FACILITY PROVIDERS																																										
Preparation and Approval of TORs, LR and DDP																																										
Request for Proposals from LR Consultants																																										
Evaluation of Bids and Signing of Contracts																																										
Conduct of Activities																																										
CLTS IN 6 REGIONS OF CAMEROON																																										
Recruitment of NGOs																																										
Preparation of a Strategic Plan																																										
Capacitation of NGOs																																										
Monitoring and Evaluation of Villages Initiated																																										
Post- EOD Monitoring																																										

BANK GROUP MANAGEMENT REPORT AND RECOMMENDATION TO THE BOARD OF DIRECTORS FOR AN ADF LOAN OF UA 4.361 MILLION AND ACTFCN GRANT OF EUR 150 THOUSAND TO THE REPUBLIC OF CAMEROON TO FINANCE PROJECT STUDIES AND PREPARATION OF A RURAL DRINKING WATER SUPPLY AND SANITATION PROGRAM

The proposal submitted to the Board of Directors for approval, concerns the granting of an ADF loan of UA 4.361 million and an ACTFCN grant of EUR 150 000 (UA 0.126 million) to the Republic of Cameroon to finance the Project Studies and Preparation of a Rural Water Supply and Sanitation Program. The program will be implemented over the period 2018-2020, and aims to enhance drinking water and sanitation sub-sector investment efficiency through studies, capacity-building, and collection and storage of data, crucial to Cameroon's water resources management. The resultant program will improve drinking water access rate in the selected localities, secure its sustainability and ensure the monitoring and evaluation of Cameroon's rural water facilities.

I. STRATEGIC THRUSTS AND RATIONALE

1.1 Project Linkages with Country Strategy and Objectives

1.1.1 In Cameroon, a clear distinction is made between urban and peri-urban hydraulics, and rural hydraulics. In the urban sector, the drinking water service quality is very poor despite a leasing arrangement dating back to May 2008. Many towns have experienced a shortfall in water production. In terms of rural water supply, it was estimated in 2011 that 45% of rural dwellers had access to drinking water. However, this estimate is merely indicative as much uncertainty surrounds the actual number of functional water points in the country. The rural sector faces several constraints, namely: (i) multiplicity of stakeholders and overlapping roles and responsibilities with inadequate coordination among them; (ii) multiplicity of water pump brands and unavailability of spare parts, thus posing major maintenance, servicing and service continuity challenges; (iii) inadequate financial resources for investment; (iv) limited contracting powers devolved by law to the local authorities (councils); and lastly (v) weak capacity of the structures currently responsible for managing the subsector.

1.1.2 In the Growth and Employment Strategy Paper (GESP), the Government has included safe drinking water and sanitation access among the key and priority areas for achieving its growth targets and wealth creation. However, it also constitutes a poverty reduction pillar. The Government's plan was to raise the rural drinking water access rate to 75% by 2020. Hence in the water and energy sector strategy paper published in September 2011, several areas of focus were recommended for the development of the rural hydraulics sub-component. These were, *inter alia*: (i) the creation of 2,000 and rehabilitation of 6,000 equivalent water points by 2015; (ii) improvement of the institutional framework including the establishment of a specific entity responsible for the organization and management of a central water information system and a water information center, and support to local authorities in setting up the relevant DWSS services at various management levels; (iii) information, education, public awareness; and (iv) human capacity enhancement to remedy weaknesses highlighted by the baseline assessment of Cameroon's water resources and their management context: inadequate and aging staff, no recruitment. Through the main activities of this project which is essentially dedicated to rural hydraulics, several of the said areas of focus could be addressed.

1.1.3 The Bank's medium-term intervention strategy in Cameroon, as defined in the 2015-2020 Country Strategy Paper (CSP), has been adopted to enable the country to meet its major

challenges, including the infrastructure deficit, and achieve the objectives of the 2010-2020 GESP. The CSP is based on two pillars, namely: (i) infrastructure enhancement for inclusive and sustainable growth, and (ii) enhanced governance for efficiency and sustainability of impactful investments. The expected deliverables of this project are fully in line with the strategic thrusts of the Government and the Bank. The Bank's intervention, through this studies project, is consistent with Cameroon's 2015-2020 Strategy Paper through its aforementioned first pillar, and the country's Growth and Employment Strategy Paper (GESP 2010-2020) on the basis of the first pillar concerning infrastructure development. Lastly, this project, which is also in line with the Bank's ten-year strategy, is aligned with the "Cameroon Vision 2035" paper and with the Bank's five top priorities (*High 5s*), particularly that concerning improving the quality of life of the people.

1.2 Rationale for Bank's Involvement

The rationale for the Bank's involvement is that the project responds to the Government's major concern as to DWSS, and to one of the Bank's five top priorities (High 5s), namely *"Improve the quality of life of the people"*. The new project will build on the achievements of recent interventions (RDWSS and SU-DWSS) to ensure their sustainability, sound management and ownership by the local communities that are the main beneficiaries. By financing the feasibility studies, the Bank will ensure better quality at entry of a future program that would be financed from the AfDB window resources. Similarly, the Bank will build on the lessons learned from implementing previous projects, in particular the RDWSS and SU-DWSS recently completed, for which it was clearly demonstrated that (i) the quality of studies is decisive for the success of a project, and that (ii) connecting water networks to existing rural power grids was no guarantee for steady water supply owing to frequent and prolonged power outages. Using solar powered or gravitational water supply systems as envisaged for the future operation will help to address this constraint. Through these studies, the Bank will provide the Government with a common rural interventions benchmark that will benefit all development partners.

1.3 Aid Coordination

1.3.1 Cameroon's drinking water and sanitation sector depends mainly on official development assistance which accounts for over 80% of its financing. The table below shows the key donor interventions.

N°	DONORS	Projects
01	World Bank	✓ Douala Infrastructure Project (roads, road network, sanitation) for USD 56.35 million ✓ Urban Sector Development and Water Supply Project (DWSS, Road Network) USD 107 million ✓ Cameroon Sanitation Project USD 28 million
02	African Development Bank	✓ Yaoundé Sanitation Study and Works (PADY 1 and PADY 2) ✓ Urban Poverty Reduction Program (studies and works) ✓ Drinking Water Supply and Sanitation in 16 Secondary Towns (studies and works) ✓ Rural DWSS Project ✓ Semi-urban DWSS Project (19 secondary towns) ✓ Project Studies for Rainwater Harvesting through Hillside Dams
03	French Development Agency	✓ Douala and Yaoundé Infrastructures (first generation C2D) ✓ Support for the Update and Implementation of Government Water and Sanitation Sector Policy ✓ Douala City Storm water Drainage Project (C2D second generation) ✓ Rehabilitation of the Minkoameyos Water Treatment Plant in Yaoundé ✓ Yaoundé Sanitation Project - Phase 2 (PADY 2)
04	EXIM BANK-CHINA	✓ Yaoundé Drinking Water Supply from the River Sanaga Project
05	KFW	✓ DWS in 4 Secondary Towns
06	Islamic Development Bank	✓ DWSS Project in 60Towns
07	Belgian Cooperation	✓ DWS Projects in 10 Towns
08	EU	✓ EU-ACP Facility
09	CIDA	✓ Drinking Water and Community Health Program
10	GIZ	✓ Local Government Infrastructure Sector Support Project
11	JICA	✓ Rural DWS Project
12	UNICEF	✓ Community-Led Total Sanitation (CLTS) Project and Water Policy Development

1.3.2 It is worth noting that these TFPs are coordinated through a WASH platform, which has a lead partner-currently UNICEF- whose tenure is two years. The meetings of this platform are held on a quarterly basis. At such meetings, each TFP presents the new sector projects initiated by its Institution. Apart from these meetings, the TFPs meet during study reports validation workshops.

II. PROJECT DESCRIPTION

A 2017 UNICEF-financed diagnostic study has shown that the constraints below constitute the major setbacks to the rural water and sanitation sub-sector development:

- Chronic lack of knowledge on the DWS access rate, owing to non-conduct of a national inventory of available DWS facilities and an update of data on such facilities;
- Multiplicity of contracting authorities resulting in non-coordination of the rural water supply sub-sector;
- Choice of inappropriate technologies, with no after-sales service;
- Lack of water quality monitoring once DWS facilities are provided;
- Lack of updated databanks and a geographic information system (GIS);
- Limited sustainability of built facilities;
- Inadequate support from project owners

- Lack of a dashboard to ensure equitable planning of DWS facilities to be provided in the regions, according to the principle of balanced development of all regions of the country.

This project study aims to improve the efficiency of investments made in this sub-sector through its research and capacity building activities, and provide information crucial to the management of Cameroon's rural hydraulics. The studies described below, is the Government's response to the issues identified above. In this regard, each service to be provided is required to cover several activities as summarized below.

2.1 Studies Envisaged

2.1.1 PD Engineering Studies of 350 DWS Mini-Systems

These studies comprise the following activities:

(i) Conduct of preliminary engineering studies of up to 350 small rural settlements spread countrywide;

(ii) Conduct of preliminary design (PD) feasibility studies of 350 deprived localities in dire need of drinking water, at least 50% of which will use renewable energies;

(iii) Conduct of detailed design (DD) studies on the 300 localities selected;

(iv) Development of the Terms of Reference for the recruitment of a consulting firm responsible for supervising and monitoring the execution of works;

(v) Preparation of the solicitation documents (SD) for the recruitment of contractors responsible for executing the works;

(vi) Organization of a roundtable of donors to finance the implementation of the 300 DWS selected;

(vii) Conduct of an environmental and social assessment

The localities concerned will be selected according to the criteria clearly defined in section 2.3.1 below.

2.1.2 Feasibility Studies on Solar Energy Utilization in DWS in the Context of Climate Change and the Cameroonian Environment

The objective of this study is to facilitate climate change mainstreaming and the inclusion of climate change adaptation technologies in the Project to Construct Small-scale Rural Drinking Water Supply and Sanitation (RWSS) systems using renewable (solar) energy in Cameroon. The long-term goal is to ensure resilience of solar powered mini-networks, and of groundwater to climate and environmental change. The four expected outcomes of this study are:

(i) Conduct of a baseline assessment;

(ii) Conduct of a climate and environmental impact assessment;

(iii) Study of solar solutions for rural drinking water supply;

(iv) Prepare a sustainable development strategy for solar pumping of drinking water in Cameroon.

2.1.3 Study of Water Resources and Setting up of a National Water Information System

The overall objective of this study is to evaluate Cameroon's water resources and set up a national water information and monitoring system.

Specifically the study will:

(i) Determine the current water distribution (surface water, groundwater, meteoric water); how it is used as well as future demand in all consumption sectors; (ii) Outline the current status of water resources quantitative and qualitative monitoring networks;

(ii) Update the National Integrated Water Resources Management Plan (PANGIRE) prepared in 2011;

(iii) Hold workshops for information on and operationalization of water resources information sharing systems; and

(iv) Conduct an analysis of the institutional framework and current water policies to ensure they are consistent with national and regional priorities for economic and social development.

2.1.4 Capacity Building of Actors in the Drinking Water Supply Facilities Chain and Consolidation of Decentralized DWSS Management

(i) Diagnose the problems encountered by all actors in executing facilities and propose, and thereafter, implement appropriate solutions at all levels;

(ii) Prepare guides on the monitoring and inspection of rural water facility construction works and organize training workshops for the various actors;

(iii) Support to decentralized regional and local authorities in contracting, operating, managing and maintaining DWSS facilities in the context of decentralization.

2.1.5 Implementation of Community-Led Total Sanitation in Regions with high OD Rates

The objective of this activity is to improve the living conditions of the inhabitants of 600 rural communities (about 1.2 million inhabitants) through awareness raising for OD eradication within these communities. Specifically, this will consist in:

(i) Promoting and popularizing CLTS as one of the strategies that will enable the Cameroon government to accelerate its agenda for achieving the SDGs;

(ii) Expanding the implementation of the CLTS approach in all rural areas;

(iii) Strengthening the capacity of RLAs in the regions to own CLTS as a tool for behavior change and adoption of best hygiene and sanitation practices;

(iv) Identifying 200 communities fulfilling the criteria for the implementation of CLTS in Cameroon;

(v) Conducting pre-trigger, trigger and post-trigger activities in 200 communities;

(vi) Promoting good practices in WASH.

2.1.6 Inventory of Water Facilities and Setting up of a Management and Monitoring System

The main objective of this operation is to have an IT tool presenting comprehensive information on Cameroon's existing rural drinking water supply and sanitation facilities and enabling the monitoring of their operation. This operation will have two main components: collection of primary information on DWSS (inventory), and setting up of a (computerized) database accessible both at the central (ministry) and the regional levels.

Specifically, this will involve conducting the following activities nationwide:

IT Aspect

(i) Reviewing the existing database at MINEE and analyzing the possibilities of improving it to take into account the results of the future national inventory of water facilities;

(ii) Proposing, where possible, a more interesting alternative based on the tools used in other countries or the latest technology;

(iii) Overseeing the inclusion of data from the national inventory of water facilities and intervene as appropriate;

(iv) Evaluating the thematic reports of inventories and intervene if necessary to make them more readable and meaningful.

It consists in setting up a database and a geographical information system, capable of producing reliable, up-to-date and real-time information to facilitate decision-making and the monitoring and evaluation of rural DWSS infrastructure.

Training

(i) Organizing training sessions for MINEE officials and other partners such as municipal employees on the use of the tools put in place;

(ii) Organizing training sessions for rural water facility maintenance and servicing technicians

Inventory

(i) Making an inventory of existing water points and latrines in each of Cameroon's local councils;

(ii) Entering these values into the database of a facilities management system that will be created for this purpose;

(iii) Producing thematic maps on basic drinking water supply and sanitation facilities.

2.2. Project Components

Component	Cost in UA million and %	Description of Components
Studies	2.887 (62. 10%) ACTFCN (0.126 or 4.6%) of the component	(i) Conducting PD engineering studies of 350 and DD engineering studies of 300 RDWS mini-systems; (ii) conduct feasibility studies on solar energy use in DWS in the context of climate change and in the Cameroonian environment; (iii) conduct the study of water resources and set up a national water resources information system.
Institutional Support	0. 843 (18.2%) ADF 100%	(i) Capacity building of actors of the drinking water supply facilities construction chain; (ii) Conducting CLTS awareness campaign; (iii) setting up a rural water resources management tool and an inventory of rural water and sanitation facilities.
Project Management and Coordination	0.917 (19. 7%) ADF 82.6%	(i) Operationalizing the project management structures; (ii) procurement of furniture and computer software; and (iii) stakeholder training and study tours.
TOTAL	4.647 (100%)	

2.3. Technical Solutions Adopted and Alternatives Explored

2.3.1 In Cameroon, rural drinking water supply systems (RDWS) may be divided into four (4) categories: (i) developed springs, (ii) equipped wells, (iii) small-scale or simplified water distribution networks, and (iv) boreholes equipped with hand-operated pumps. The findings will concern engineering studies (PD and DD) of DWS mini-networks given that the selected localities are villages or chief towns of *subdivisions* with relatively large populations (between 500 and 5000 inhabitants) grouped together. Isolated structures are ill-suited to such settlements unless several are provided. With the mini-systems, the service level is significantly improved, as water distribution points are brought closer to consumers through standpipes and private connections, which is in line with the Government's rural policy. Besides these engineering studies, feasibility studies will be conducted on these structures with renewable energies, particularly solar energy. The aim is to improve water supply reliability by using readily available energy as opposed to being connected to the existing power grid that is subject to frequent and prolonged breakdowns.

2.3.2 Additionally, DWS mini-systems also differ according to water resource mobilization energy type. Hence there are gravity flow DWS, DWS using electric power from the national power grid, motorized DWS (thermal) or solar DWS systems. Where natural conditions permit (abundant sources of good quality gravity-fed water) gravitational DWS systems are most recommended as a priority. Operating costs are reduced, which is convenient for rural dwellers whose financial resources are often limited. High fuel and electrical energy prices, as well as frequent power outages do not make for smooth management of other types of DWS mini-systems.

2.3.3 Conversely, the very few solar-powered DWS mini-systems found constitute the innovative element in this project.

2.4. Type of Study

It is a project comprising 6 studies, each of which aims to improve the management of rural water facilities and the preparation of an investment program for the construction of 300 simplified DWS networks.

2.5. Project Cost and Financing Arrangements

2.5.1. The project cost is estimated at UA 4.647 million or CFAF 3.649 billion at the rate of UA 1 = CFAF 785.25 BEAC (XAF) in October 2017. 93.8% of the project cost will be financed by the ADF, 2.7% by the Africa Climate Technology Finance Center and Network (ACTFCN) and 3.5% by counterpart funds. Le Gouvernement prendra en charge des activités de (i) location des locaux, (ii) les taxes et douanes, (iii) la sécurité des équipes envoyées sur le terrain, et (iv) les frais financiers des consultants nationaux affectés au projet pour un coût estimé à 126 Millions F CFA, soit environ 0,16 Millions d'UC

Table
Summary of Project Cost by Source of Financing

Source	UA million			CFAF billion			Percentage
	FE	LC	Total	FE	LC	Total	
ADF	1.042	3.319	4.361	0.818	2.606	4.424	93.8%
ACTFCN	0.126		0.126	0.099		0.099	2.7%
Government		0.160	0.160	0	0.126	0.126	3.5%
Total	1.168	3.479	4.647	0.917	2.732	3.649	100%

Table of Estimated Costs by Component (in UA million)

	UA million			CFAF billion		
	FE	**LC**	**Total**	**FE**	**LC**	**Total**
COMPONENT I						
STUDIES OF 350 DWS MINI-SYSTEMS	0.955	0.955	1.910	0.75	0.750	1.500
WATER RESOURCES EVALUATION STUDIES	0.000	0.637	0.637	0.000	0.500	0.500
SOLAR ENERGY FEASIBILITY STUDIES	0.126	0.000	0.126	0.099	0.000	0.099
TOTAL I	**1.081**	**1.592**	**2.673**	**0.849**	**1.250**	**2.099**
COMPONENT II						
INVENTORY AND SETTING UP OF A MONITORING TOOL	0	0.509	0.509	0.000	0.400	0.400
CAPACITY BUILDING OF FACILITY CHAIN ACTORS	0	0.169	0.169	0	0.133	0.133
CLTS IN 6 REGIONS OF CAMEROON	0	0.102	0.102	0	0.080	0.080
TOTAL II	**0**	**0.781**	**0.781**		**0.613**	**0.613**
COMPONENT III – PROJECT MANAGEMENT						
GOODS	0	0.088	0.088	0	0.069	0.069
OPERATION (excluding consultants)	0	0.504	0.504	0	0.396	0.396
PCU STAFF	0	0.232	0.232	0	0.182	0.182
AUDIT	0	0.025	0.025	0	0.020	0.020
TOTAL III	**0.000**	**0.849**	**0.849**	**0**	**0.667**	**0.667**
BASE COST	1.081	3.2217	4.3028	0.8489	2.530	3.379
Physical contingencies (5%)	0.054	0.161	0.215	0.042	0.126	0.169
Financial Risks (3%)	0.032	0.097	0.129	0.025	0.076	0.101
Total Cost ETD	**1.168**	**3.479**	**4.647**	0.917	2.732	3.649

Table of Breakdown of Costs by Expenditure Category

	UA million			CFAF billion		
	FE	**LC**	**Total**	**FE**	**LC**	**Total**
GOODS	0	0.088	0.088	0	0.069	0.069
OPERATION	0	0.73607	0.73607	0	0.578	0.578
SERVICES	1.081	2.398	3.4792	0.8489	1.883	2.732
BASE COST	1.081	3.2216	4.3028	0.849	2.530	3.379
Physical Contingencies (5%)	0.054	0.161	0.215	0.042	0.126	0.169
Financial Risks (3%)	0.032	0.097	0.129	0.025	0.076	0.101
Total Cost ETD	1.168	3.479	4.647	0.917	2.732	3.649

2.6. Project Area of Influence

The project covers the entire Cameroonian territory. The 350 localities chosen for the DWS mini-system studies were selected in the ten (10) regions of Cameroon. These localities represent villages and *subdivisional* chief-towns with less than 5,000 inhabitants. Taking an average of 2,500 inhabitants per locality, the population covered by these studies could be above 900,000 people. To this should be added the population of the 200 villages selected for the EOD operation to eradicate the practice of open defecation. According to officials from the Ministry of Energy and Water Resources, the population of the 200 villages selected for CLTS campaigns was estimated at 0.4 million, bringing the total to more than 1.3 million people ultimately affected by this project. For the DWS mini-systems, the choice of project localities was guided by the following factors: (i) low drinking water access rate, (ii) relatively high population density, making isolated water points less appropriate, (iii) prioritization of water in local development plans, (iv) high probability of easy management of the future mini-system by these populations through a sound organization and willingness to pay for the water utility. Lastly, through its capacity building activities, the project will benefit the Ministry of Water Resources and Energy, Local councils and Small and Medium-Sized Enterprises.

2.7. Participatory Approach to the Identification, Design and Implementation of the Study

During the preparation mission for this project, consultations were held with the stakeholders namely, the central and regional administration, local authorities and communities, the beneficiary populations, stakeholders such as FEICOM. This broad consultation resulted in the collection of data that was further developed during the appraisal mission. This consultation actually proved necessary as Cameroon's decentralization policy promotes local community involvement in the project appraisal process for better ownership and transfer of competences to the local councils. The Bank's preparation mission met with the key water and sanitation sub-sector actors and several mayors. During the project appraisal, working sessions were held at the Ministry of Water Resources and Energy in the presence of the main directors concerned with the water and sanitation sector namely, (i) the Director of Water Resources Mobilization, (ii) Director of Water Resources Management and (iii) Director of Renewable Energies. The terms of reference of the various studies considered were reviewed and validated during these meetings.

2.8. Bank Group Experience and Lessons Learned Reflected in Project Design

Two water and sanitation projects in the Bank's portfolio are in the process of closing or have recently closed, namely: (i) the Rural Drinking Water Supply and Sanitation Project

(RDWSS), which closed in December 2016 and (ii) the Semi-Urban Drinking Water Supply and Sanitation Project (DWSS -SU), that closed in September 2017. While the former was conducted to the satisfaction of the Government and the beneficiary populations, the latter struggled at start-up, leading to the reallocation of an unallocated balance for the financing of this project being formulated, with the aim of improving the achievement of the initial objectives. Projects in the process of closure have highlighted the following lessons: (i) poor quality at entry of DWSS projects, notably the quality of studies (RDWSS and the sanitation component of DWSS-SU); (ii) weak capacity of contractors (national and international) to carry out the work within the contractual deadlines; (iii) underperformance of executing agencies in monitoring the implementation of projects; (iv) slowness in the procurement process; and (v) late start-up of projects owing to delays in fulfilling effectiveness and first disbursement conditions. Taking all these lessons into account, the project's design was based on the following principles and strategies: (i) rigor in issuing non-objection notices for the recruitment of consultants; (ii) creation within the implementation unit of the position of project management assistant (consultant), (iii) setting up of a new implementation unit to remedy the identified weaknesses.

2.9. Key Performance Indicators

The key performance indicators and the results expected at the end of the study are indicated in the results-based logical framework. These include the reports of the various phases of studies (preliminary design, detailed design and TDs), training workshop reports, and reports (database and data) of the various operations to set up a system for monitoring the management of DWSS facilities.

III. PROJECT FEASIBILITY

3.1. Financial and Economic Performance

An economic justification is not applicable at the feasibility study stage.

3.2. Environmental, Social and Gender Impact

3.2.1. Environmental Impact

As this project focuses on feasibility and engineering studies, it has no adverse impact on the environment.

3.2.2. **Social Impacts:** Besides the direct and indirect jobs (about 500) that will be created during the implementation of the various studies, the social impacts from implementing the future program will be largely positive. During the preparation mission, women complained about water fetching due to lack of access to water during 7 months of the year. This situation affects children as they must trek long distances to fetch water, leaving them little time for evening studies. Thus, the main expected positive impacts will be: (i) utilization of clean energy (solar energy) for pumping public water; (ii) upsurge of drinking water and sanitation access and adoption by the populace of proper hygiene practices; (iii) decreased prevalence of waterborne and skin diseases; (iv) job creation during project implementation and during construction, and increased economic activities in the framework of private sector infrastructure management and maintenance undertakings; (v) income-generating activities by women using time saved from water fetching; and (vi) improved living environment in schools and other public places (railway stations, markets, health centres, etc.) owing to permanent access to drinking water and sanitation facilities, (vii) children’s time saved to be devoted to studies.

3.2.3. Furthermore, the project resulting from the studies will, through improved safe drinking water and sanitation access, yield significant social and economic benefits: (i) health benefits with reduced prevalence of water-borne diseases; (ii) reduced lateness to school, especially for girls; and (iii) opportunity benefits derived from time saved by beneficiaries following reinforcement/rehabilitation of drinking water supply systems. In this regard, it is worth noting that without the project, the rate of non-functional rural facilities will stay on the increase (the current estimate stands at 35%), contributing to the exacerbation of poverty and misery within communities. However, the project's implementation will reverse this trend, as besides bringing the situation under better control, it will also facilitate resource mobilization for the construction of new facilities.

3.2.4. **Gender and Youth Employment**: Women, children and youth constitute the key stakeholders in the future drinking water program. They are the principal victims because lack of access to drinking water means a daily water-fetching chore and much time lost that should be devoted alternatively to gainful activities for their socio-cultural betterment. Some regions covered by this project have villages with no drinking water supply, whereas others, owing to limited flow, have water access for only 3 months per year. The drinking water collection chore constitutes a constraint on development given that in the villages, women besides participating actively in farming activities must trek long distances to fetch water. Furthermore, lessening the water-fetching chore for women, or even children, would enable them to benefit from the indirect jobs created during project implementation, especially the small businesses that will develop around worksites, and the time saved that would be devoted to alternative socio-economic and cultural activities.

3.2.5. **Regarding the Youth**, in addition to paid internships that will be organized for them by the project (5 interns per year), they will benefit from the direct and indirect jobs created by the project, especially the labor-intensive works provided for, such as excavations and surveys for the studies. Furthermore, bringing drinking water points closer to households will deprive women of some off-time for relaxation as certain studies reveal that the water-fetching chores in villages give women opportunities for interactions among themselves and interpersonal communication.

3.2.6. The activity concerning improved performances of actors in the drinking water supply facilities chain is a source of hope for the administration. Faced with the short lifespan of rural DWS facilities, it was observed that this was the result of poor execution of the facilities due to inadequate quality assurance on the part of construction contractors and works monitoring and inspection teams. The implementation of this activity will enhance the sustainability of the DWS facilities, leading to a sustainable increase in the communities' drinking water access rate.

3.2.7. **Forced Resettlement:** The project is a feasibility study and will not entail any population displacement.

IV. IMPLEMENTATION

4.1 Implementation Arrangements

4.1.1. The Ministry of Water Resources and Energy will be the project's executing agency through the Project Coordination Unit (PCU) attached to the General Secretariat. La Direction de la Mobilisation des ressources en Eau du MINEE et la Direction de la Gestion des ressources en eau, assureront la supervision globale du Projet. However, the PCU will be headed by a Coordinator, a Water and Sanitation Engineer appointed by the Government following the Bank's non-objection approval from a list of three CVs. He will be supported by a project management assistant recruited through invitation for applications. The

coordinator will be exclusively dedicated to the project (released from all other official duties at the Ministry). The project will recruit an accounting manager and a water and sanitation engineer to support the project management assistant and carry out monitoring and evaluation. They will be tasked with: (i) undertaking actions for a smooth implementation of the selected activities; (ii) secretarial services for meetings and workshops scheduled for the approval of progress reports of studies and other activities; and (iii) assisting the consultants in obtaining data and documents deemed useful for the project and facilitating the organization of its meetings with institutions and experts.

4.1.2. The Steering Committee will be chaired by the Secretary General of MINEE. Il sera composé des représentants des administrations suivantes : MINEE, MINEPAT, MINMAP, MINFI, Ministère en charge de la décentralisation et du développement local, CAA et FEICOM The various reports will be approved with the contribution of the key stakeholders, including the municipal staff in charge of water, hygiene and sanitation of the municipalities concerned, the *Divisional* delegates of MINEE, the focal points of the two MINEE directorates (DGRE and DMRE), the focal point of MINMAP, that of FEICOM and its competent local representative.

4.2 Procurement Arrangements

4.2.1. *Applicable Procurement Systems*

Goods, works and consulting services procurement under the project will be conducted in accordance with the "Procurement Policy and Methodology for Bank Group-Funded Operations" of October 2015. Pursuant to this policy and after exploring available assessments on the national system, the following groups of transactions were identified for implementation by the different systems mentioned below: (i) procurement of consulting services will be conducted in accordance with the Bank's procurement system ("AfDB System") using the Bank's solicitation documents (ii) goods procurement under this operation will be conducted in accordance with the national public procurement system governed by Decree No. 2004/275 of 24 September 2004 and et les autres décrets et textes d'application, using local standard solicitation documents.

4.2.2. *Procurements Envisaged*

4.2.2.1 ***Consulting Services*:**

The project involves the procurement of multiple consulting services with costs estimated at UA 3 585 000. The consultants to provide these services shall be selected using the methods described in the Operations Procurement Manual of the Procurement Framework as follows:

- The procurement of consulting services for (i) PD engineering studies of 350 solar RDWS mini-systems, (ii) capacity building of actors of the drinking water supply facilities chain and consolidation of decentralized DWSS management, (iii) the inventory and setting up of a management and monitoring system of water facilities will be based on a short list of firms and Quality-and Cost-Based Selection (QCBS).

- The procurement of consulting services for the implementation of Community-Led Total Sanitation in regions with high open defecation rates will be based on a shortlist of qualified NGOs and Quality-and Cost-Based Selection (QCBS).

- These are services that need to be provided by organizations that are conversant with the intervention environment and targets.

- The procurement of consulting services for the financial and accounting audit will be based on a short list and the Least-Cost Selection (LCS) procedure.

- Individual consulting services will be procured according to the individual consultants (IC) selection procedure based on the comparison of 3 CVs.

- An agreement will be signed between MINEE and the Institute of Geological and Mining Research (IRGM) for the conduct of the water resources study and setting up of a national water information system, estimated at UA 637 000. IRGM, which is a public entity, is the lone institution in Cameroon with the requisite skills, human and material resources to conduct this activity. It is currently conducting with World Bank and CICOS funding, two studies that will provide baseline data for this study. The agreement will be subject to the Bank's no-objection approval prior to its signature.

4.2.2.2 ***Goods*:**

The project entails minor procurements of sundry non-capital equipment estimated at UA 88 000. Such goods will be procured by direct shopping in accordance with the provisions of Article 5 of Decree No. 2004/275 of 24 September 2004.

The procurement arrangements outlined above are summarized in the following table:

Table
Summary of Procurement Arrangements

Categories	**Use of Country System**	**Use of AfDB System**				**Total in UA**
		SBQC	LB	IC	Other	
Consulting Services						
Conduct of PD engineering studies of 350 solar RDW mini-systems		1.910 [1.910]				1.910 [1.910]
Capacity building of DWS facility chain actors and consolidation of decentralized DWSS management		0.169 [0.169]				0.169 [0.169]
Inventory and setting up of a water facilities management and monitoring system		0.509 [0.509]				0.509 [0.509]
Conduct of the study of water resources and setting up of a national water resources information system					0.637 [0.637]	0.637 [0.637]
Implementation of Community-Led Total Sanitation in regions with high OD rates		0.102 [0.102]				0.102 [0.102]
Individual Consultants				0.232 [0.232]		0.232 [0.232]
Project Audit			0.025 [0.025]			0.025[0.025]
Goods (non-capital)	0.088 [0.088]					0.088 [0.088]

**Figures in brackets represent Bank financing*

4.2.3. ***Executing Agency:*** The Ministry of Water Resources and Energy will be the project's executing agency. A Project Coordination Unit (PCU) will be set up, which will be in charge of the day-to-day management of all activities provided for under the project. This unit will be beefed up with the recruitment of an experienced procurement specialist on a competitive basis. The PCU will ensure the day-to-day management of procurement activities (preparation and revision of the procurement plan, preparation of notices of expressions of interest, short lists and RFP files, and contracts management). The Special Tenders Board (STB) will be responsible for the review of tender dossiers, opening of bids, review and adoption of contract awards and the review of draft contracts or amendments, within the limits of the thresholds set by Decree 2013/271 of 5 August 2013. Above these thresholds, the Ministry of Public Procurements (MINMAP) will be in charge of procurement operations in accordance with the provisions of the same decree. The PMU must ensure compliance with the country procurement vetting process before submitting files to the Bank for its non-objection approval.

4.2.4. ***Procurement Process Review*****:** The following procurements will be subject to prior review: (a) all consultant contracts and agreements. More specifically, the following documents will be submitted to the Bank for approval: (i) Procurement Plan; (ii) General Procurement Notices, (iii) Notices of Expression of Interest, (iv) Requests for Proposals, (v) Appraisal Reports of Technical Proposals of Consultants, (vi) Combined Technical and Financial Evaluation Reports, with the contract award recommendations, together with the minutes of the negotiations and the initialed draft contract. All other procurements will be subject to the Bank's ex-post review.

4.2.5. ***Procurement Plan:*** During project appraisal, the Borrower developed a procurement plan that forms the basis of the procurement methods for the project. This plan was mutually accepted by the Borrower and the Project Team. It will be available in the project database and on the Bank's external website. The procurement plan will be updated annually or as required by the Borrower's project team to reflect the real project implementation and institutional capacity building needs. Any proposed revision to the procurement plan shall be subject to prior Bank approval, in accordance with the no-objection procedure. The Borrower will implement the Procurement Plan as agreed with the Bank.

4.3. Financial Management and Disbursement Arrangements

4.3.1. The level of fiduciary risk related to project implementation by MINEE was deemed substantial. MINEE has experience in implementing Bank Group operations through RDWSS and DWSS-SU projects. However, at the closing phase of these projects, the Ministry's financial management performance was unsatisfactory, particularly with respect to the fiduciary management of DWSS-SU. In light of the weaknesses identified in the evaluation of various Cameroonian public financial management sub-systems, and those noted in the PIUs set up by MINEE for implementing Bank operations, this operation will be executed through a new select team within the Ministry of Water Resources and Energy (MINEE). This team called PIU(Project Implementation Unit) will be responsible for setting up a satisfactory and effective financial management system, to ensure with reasonable assurance: (i) the efficient and cost-effective use of project resources for the intended purposes; (ii) the timely submission of project accounts (on quarterly and annual basis); and (iii) the security of assets procured under the project. To this end, MINEE will appoint a qualified water and sanitation engineer as Project Coordinator. He/She will be assisted by two other sector experts and an accounting manager who will all be recruited on a competitive basis. MINEE shall submit to the Bank the proposed composition of the project implementation team for prior validation of the skills and experiences of the successful candidates. The team will undergo training on the Bank's financial management and disbursement procedures at the project launching workshop, which will take place once the project becomes effective. The Bank's newly developed and

validated management procedures manual, as well as the TOM2PRO management software, all procured through the implementation of RDWSS, will be immediately made available to the project upon its effectiveness.

4.3.2. **Disbursement Arrangements:** Bank resources will be disbursed in accordance with the provisions of the Bank Disbursement Handbook as follows: (i) Direct Payment Method (for payment of service contracts, and procurement of goods); (ii) Reimbursement method in the case of pre-financing by the national counterpart funds, of expenditures chargeable to the Bank's resources and previously authorized and approved by the Bank; and (iii) Special account method for operating expenses and the organization of workshops. In this regard, and in accordance with provisions in force in the country, CAA will open a special account in local currency with a financial institution acceptable to the Bank. This account will operate through a dual signature of CAA and MINEE in accordance with Bank Group rules and procedures.

4.3.3. **Financial and Technical Audit:** No later than six (6) months after project effectiveness, the Ministry of Water Resources and Energy in collaboration with the Audit Bench will recruit, on a competitive basis and in accordance with the terms of reference (ToR) approved by the Bank, an external audit firm for the annual audit of the financial statements, and the technical audit of the project. The Audit Bench will be responsible for this external audit activity and in that regard, the auditor's contract shall be signed by the Bench. The Audit Bench will be responsible for: (i) recruiting the audit firm with the support of the MINEE Tenders Board; (ii) following up the audit; and (iii) submitting the audit report to the Bank within six months of the end of each fiscal year.

4.4. Governance

4.4.1. In a bid to improve water and sanitation sector governance, the Government of the Republic of Cameroon, by a 2010 decree of the Head of State, devoted the transfer of competences in the RWS domain to regional and local authorities. Indeed, drinking water supply facilities (wells, boreholes, DWS mini-systems) built or to be built through public funds, form part of State property and are managed by the Councils. The Councils exercise contracting powers and management over wells and boreholes, without prejudice to the recognized responsibilities and prerogatives of the State, in particular:

- Developing and implementing sustainable water and sanitation development plans and projects,
- Defining national water management guidelines, policies and strategies;
- Exploiting spring and mineral waters; and
- Laying down surface water and groundwater protection and exploitation arrangements.
- Revenue from local taxation (local direct taxes, additional taxes, levies on the State's tax revenue, direct and indirect taxes, and any other levy under Law No. 2009/019 of 15 December 2009 on local taxation) amounted to CFAF 657.3 billion, subject to data for the fourth quarter of 2015;
- Average annual local revenues are estimated at CFAF 147.333 billion, i.e. 4.85% of the average State budget over this period. This is below the African average of 8%.

4.4.2 Although the transfer of competences is beneficial, it is worth mentioning that the Councils face major challenges in the effective implementation of such competences transferred to them regarding drinking water supply, due to factors that can be summed up as follows: (i) inadequacy of their technical, human and financial capabilities; (ii) inadequacy of the budgetary resources allocated by the State, notably the appropriations transferred and the general decentralization allocation; and (iii) poor coordination of State interventions on the ground, coupled with the lack of logistical, technical and financial resources of the MINEE Regional and *Divisional* Delegations. Therefore, the present project, through the activities provided for therein, constitutes a response to the expectations of the regional and local authorities (RLAs).

4.5. Sustainability

The main objective of this project is to improve the sustainability of existing or planned water and sanitation facilities. Indeed, (i) the involvement of local councils in drawing up the lists of localities, (ii) their active participation in preparing inventories, (iii) the various training activities planned for all the stakeholders involved in improving the sustainability of facilities and hence the sustainability of rural water supply, not only in the targeted localities, but also in those localities not concerned by the project. Similarly, the desire to conduct studies aimed at prioritizing renewable energies is likely to ensure the regularity of water utility, given that this approach helps avert the recurrent and prolonged breakdowns of DWS connected to existing power grids, paralyzing public access to water for extended periods.

4.6. Risk management

4.6.1 **Five major risks** have been identified for the implementation of the project and its objectives:

(i) Weak capacity of national firms to complete their work by the contractual deadlines;

(ii) Underperformance of the implementation units in monitoring project execution,

(iii) Delays in the procurement process;

(iv) Insecurity in Cameroon’s northern regions; and

(v) Weak mobilization of the counterpart funds.

(vi) la lenteur dans la délivrance des avis de non objection

4.6.2 T**he following mitigation measures are proposed in the light of the risks identified above:**

(i) Regarding the competence of national consultants, it was decided that consulting firms, which will conduct the studies, be recruited on the basis of an international- level short list.

(ii) Besides the post of project management assistant provided for to support the PCU, there are plans to enhance the capacity of officers involved in the areas of project management, monitoring and evaluation, financial management and accounting, climate change and environment, etc.;

(iii) Regarding the delays in the procurement process, this project will consider Advance Procurement Actions (APA);

(iv) The successful implementation of national and regional measures to combat insecurity will be a sine qua non for the project's intervention in the country's 10 regions, particularly the studies aspect which integrates the northern regions;

(v) During the appraisal mission, the country undertook to define and implement a financial resources mobilization plan to support project implementation;

Un suivi de proximité sera assuré par la Banque dont la direction générale centre sera déjà basée à Yaoundé au Cameroun

4.7. Knowledge Building

The project involves conducting studies. Through its studies or capacity building activities, it will provide essential information for the management of Cameroon's rural water supply. Thus, the water resources assessment study will build knowledge on the status of Cameroon's water resources, the impact of climate change on these resources and the potential for their renewal. This will facilitate the optimal use of water sources made available to the municipalities concerned by the project. This exercise will improve the monitoring of any adverse impacts of climate change on the renewal of water resources. Building the capacities of the actors of the DWS facilities construction chain will enable the said actors to understand the reasons for the limited lifespan of the DWS facilities and the precautions to be taken in the future to ensure their sustainability.

V LEGAL FRAMEWORK

5.1. Legal Instrument

The study will be financed by an ADF loan of UA 4.361 million from ADF resources, obtained from the cancellation of the balance under the Semi-Urban Drinking Water Supply and Sanitation Project, as well as a grant from the Africa Climate Technology Finance Center and Network (ACTFCN) in the amount of EUR 150 00.

5.2. Conditions related to Bank Intervention

5.2.1. The project's legal instrument is an ADF Loan Agreement of UA 4.361 million signed between the Republic of Cameroon and the Bank.

5.2.2. The effectiveness of the Loan Agreement shall be subject to the fulfillment by the Borrower, to the satisfaction of the Fund, of the conditions set out in Section 12.01 of the General Conditions.

5.2.3. Besides the Loan Agreement effectiveness, the first disbursement of Loan resources shall be subject to the fulfillment by the Borrower of the following conditions:

(a) Closure, justification, and repayment of the balance of the RDWSS special accounts;

(b) Submission to the Bank of the 2016 DWSSP-SU audit;

(d) Provide to the Fund, the instrument setting up the Project Steering Committee and the list of its members;

(e) Provide to the Fund, evidence of the appointment of a Project Coordinator following a non-objection of the Bank and key members of the Project Coordination Unit.

5.2.4. Additional condition: the Borrower undertakes, to the satisfaction of the Fund, to provide the Fund, by 30 June 2019, with proof of the rationale for the semi-urban drinking water project special accounts (PAEPA MSU).

Compliance with Bank Policies

This project complies with applicable Bank policies, including those related to project financial management, procurement, disbursement and eligibility for Bank financing. No exceptions are recommended.

VI. RECOMMENDATION

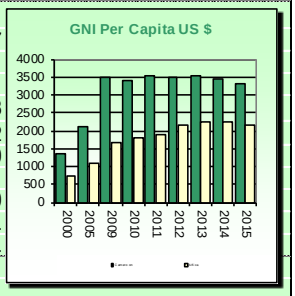
Management recommends that the Board of Directors approve the proposal for a loan of UA 4.361 million from ADF resources to the Republic of Cameroon for the purpose and under the conditions set forth in this report.

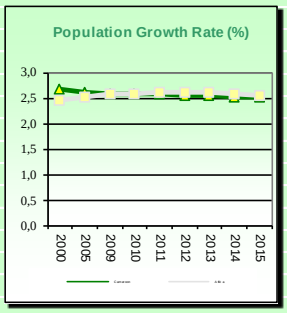
APPENDIX I – CAMEROON'S COMPARATIVE SOCIO-ECONOMIC INDICATORS

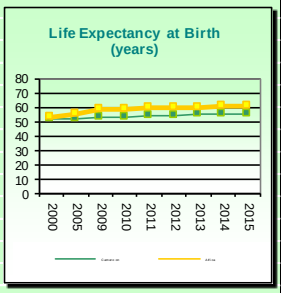
Cameroon

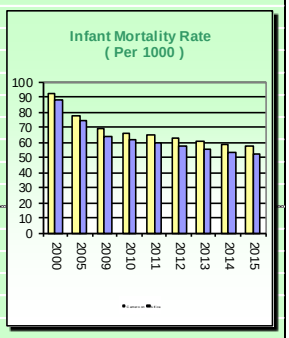
COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Cameroon	Africa	Develo-ping Countries	Develo-ped Countries
Basic Indicators					
Area ('000 Km²)	2016	475	30 067	97 418	36 907
Total Population (millions)	2016	23,9	1 214,4	6 159,6	1 187,1
Urban Population (% of Total)	2016	55,1	40,1	48,7	81,1
Population Density (per Km²)	2016	50,6	41,3	65,1	33,8
GNI per Capita (US $)	2015	3290	2 153	4 509	41 932
Labor Force Participation *- Total (%)	2016	76,1	65,7	63,5	60,0
Labor Force Participation **- Female (%)	2016	71,1	55,7	48,9	52,1
Sex Ratio (per 100 female)	2016	100,0	100,1	106,0	105,0
Human Develop. Index (Rank among 187 countries)	2015	153	...	...	...
Popul. Living Below $ 1.90 a Day (% of Population)	2014	24,0	...	...	...
Demographic Indicators					
Population Growth Rate - Total (%)	2016	2,5	2,5	1,3	0,6
Population Growth Rate - Urban (%)	2016	3,5	3,6	2,4	0,8
Population < 15 years (%)	2016	42,3	40,9	27,9	16,8
Population 15-24 years (%)	2016	20,2	19,3	16,9	12,1
Population >= 65 years (%)	2016	3,2	3,5	6,6	17,2
Dependency Ratio (%)	2016	83,6	79,9	54,3	52,0
Female Population 15-49 years (% of total population)	2016	24,0	24,0	25,7	22,8
Life Expectancy at Birth - Total (years)	2016	56,4	61,5	69,9	80,8
Life Expectancy at Birth - Female (years)	2016	57,6	63,0	72,0	83,5
Crude Birth Rate (per 1,000)	2016	35,7	34,4	20,7	10,9
Crude Death Rate (per 1,000)	2016	10,9	9,1	7,6	8,6
Infant Mortality Rate (per 1,000)	2015	57,1	52,2	34,6	4,6
Child Mortality Rate (per 1,000)	2015	87,9	75,5	46,4	5,5
Total Fertility Rate (per woman)	2016	4,6	4,5	2,6	1,7
Maternal Mortality Rate (per 100,000)	2015	596,0	476,0	237,0	10,0
Women Using Contraception (%)	2016	34,1	31,0	62,2	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2005-2015	8,3	41,6	125,7	292,2
Nurses and midwives (per 100,000 people)	2005-2015	52,0	120,9	220,0	859,4
Births attended by Trained Health Personnel (%)	2010-2015	64,7	53,2	69,1	...
Access to Safe Water (% of Population)	2015	75,6	71,6	89,4	99,5
Access to Sanitation (% of Population)	2015	45,8	39,4	61,5	99,4
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2015	4,5	3,4	...	...
Incidence of Tuberculosis (per 100,000)	2015	212,0	240,6	166,0	12,0
Child Immunization Against Tuberculosis (%)	2015	74,0	81,8	...	...
Child Immunization Against Measles (%)	2015	79,0	75,7	83,9	93,9
Underweight Children (% of children under 5 years)	2010-2015	14,8	18,1	15,3	0,9
Prevalence of stunding	2010-2014	31,7	33,3	25,0	2,5
Prevalence of undernourishment (% of pop.)	2015-2016	9,9	16,2	12,7	...
Public Expenditure on Health (as % of GDP)	2014	0,9	2,6	3,0	7,7
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2010-2016	117,1	101,2	104,9	102,4
Primary School - Female	2010-2016	110,7	98,4	104,4	102,2
Secondary School - Total	2010-2016	58,1	52,6	71,1	106,3
Secondary School - Female	2010-2016	53,5	50,2	70,5	106,1
Primary School Female Teaching Staff (% of Total)	2010-2016	54,2	47,1	59,8	81,0
Adult literacy Rate - Total (%)	2010-2015	75,0	66,8	82,3	...
Adult literacy Rate - Male (%)	2010-2015	81,2	74,3	87,1	...
Adult literacy Rate - Female (%)	2010-2015	68,9	59,4	77,6	...
Percentage of GDP Spent on Education	2010-2015	3,0	5,0	4,0	5,0
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2014	13,1	8,7	11,2	10,3
Agricultural Land (as % of land area)	2014	20,6	41,7	37,9	36,4
Forest (As % of Land Area)	2014	40,3	23,2	31,4	28,8
Per Capita CO2 Emissions (metric tons)	2014	1,6	1,1	3,5	11,0









Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators; UNAIDS; UNSD; WHO, UNICEF, UNDP; Country Reports. *last update : June 2017*

*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+)*

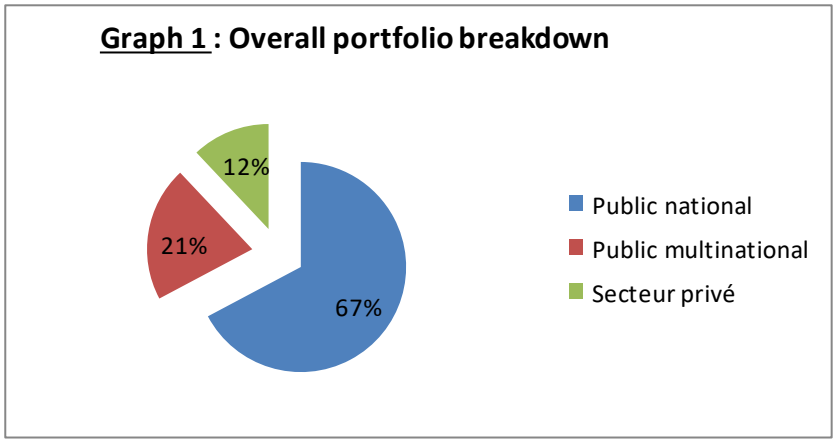
APPENDIX II: TABLE OF BANK OPERATIONS IN CAMEROON AS AT 30 SEPTEMBER 2017

SECTORS	PROJECTS	Approval Date	Signature Date	Effectiveness	Satisfaction disbursement	Date 1st disbursement	Disbursement Deadline	Bank Financing (in UA million)			
								AfDB loan	ADF / NTF loan	Grants	Disb. Rate
Governance	Cadastre Project (PAMOCCA 1).	15.11.2010	05.01.2011	17.05.2011	10.02.2012	21.03.2012	30.12.2017		7,00		52,6%
	Cadastre Project (PAMOCCA 2).	17.12.2013	08.06.2014	29.10.2014	29.10.2014	24.04.2015	30.03.2018		5,00		14,9%
Transport	Kumba-Mamfe Road Project	21.11.2012	09.02.2013	16.09.2013	07.11.2013	27.01.2014	31.12.2017		47,260		56,8%
	Road program 1: Batchenga-Léna	26.11.2014	28.03.2015	09.02.2016	12.04.2016	13.09.2016	31.12.2019	128.53	12.45		4.4%
	Road program 2 :Yaounde-Bafoussam	23.11.2016	08.06.2017	25.08.2017				225.39	12.82		0.0%
Tech Info-Com	Central African Backbone	09.07.2015	29.10.2015	14.01.2016	14.01.2016	24.05.2016	31.12.2019	31.12		1.22	1.4%
Water and Sanitation	Yaounde Sanitation Project (PADY 2)	19.06.2013	11.09.2013	17.03.2014	01.10.2014	13.11.2014	31.12.2018		20.99	2.85	22.2%
	DWSS Project - Semi – Urban	28.01.2009	13.05.2009	02.11.2009	28.05.2010	14.10.2010	30.09.2017		33.77		78.1%
	Rainwater Mobilization Studies PEMVEP	20.06.2016	21.10.2016	21.10.2016	24.02.2017		31.12.2018			1.08	0.0%
Energy	Electrical Network Reinforcement PREREDT	15.09.2010	15.10.2010	20.04.2011	22.01.2013	25.02.2013	30.12.2017		31.64		32.4%
	Hydropower Development - Lom Pangar	10.11.2011	18.01.2012	14.06.2012	14.12.2012	25.07.2013	31.12.2017		44.93		11.6%
Agriculture	Rural Infrastructures Support - Grassfield 2	23.10.2013	16.12.2013	10.04.2014	15.09.2014	07.10.2014	31.12.2019		13.61	3.19	27.1%
	Agricultural Value Chains Project PD-CVA	20.01.2016	21.10.2016	23.12.2016	23.12.2016	15.03.2017	31.01.2022	74.49			2.1%
Total National Public Operations								459.53	229.47	8.34	13.09%

Private sector	Shipyard and Industrial Engineering (CNIC)	12.12.2002	02.06.2003	29.04.2005	29.04.2005	13.05.2005	31.12.2016	32.15			67.9%
	AES-SONEL Investment Program	10.05.2006	08.12.2006	13.02.2007	15.02.2007	20.02.2007	31.12.2020	50.05			100%
	Dibamba Thermal Plant	28.04.2010	11.05.2011	11.05.2011	15.07.2011	22.07.2011	01.06.2023	18.58			100%
	Kribi Thermal Plant	15.07.2011	22.12.2011	22.12.2011	27.08.2012	13.09.2012	15.11.2025	23.84			100 %
Total National Private Operations								**124.64**			**91.73%**
Regional Environment	Protecting Central Africa's Elephants	22/07/2013	16.12.2013	11.11.2014	16.01.2015	30.04.2015	31.12.2017		0.25		36.9%
	Rehabilitation Lake Chad Basin (PRESIBALT)	17/12/2014	02/07/2015	11.11.2015	15.03.2016	25.07.2016	30.09.2019		12.5		7.9%
Regional Energy	Interconnection Study Chad - Cameroon	07.10.2013	29.01.2014	03.09.2014	23.10.2014	15.12.2014	31.12.2017		1.25		74.0%
Regional Transport	Transport Facilitation Bamenda - Enugu.	25.11.2008	13.05.2009	04.11.2009	01.12.2009	24.12.2009	31.06.2017		90.39		57.0%
	Brazza -Yaounde Corridor (Ketta – Djoum 1)	25.09.2009	11.01.2010	29.03.2010	13.02.2012	24.04.2012	30.11.2017		59.27		90.6%
	Brazza -Yaounde Corridor (Ketta – Djoum 2)	21.10.2015	05.04.2016	05.08.2016	06.09.2016	01.11.2016	31.12.2020	51.77			0.2%
Total multinational public operations								**51.77**	**163.66**		**49.82%**
TOTAL OVERALL PORTFOLIO : UA 1.037 BILLION = CFAF 814.649 Billion								**635.94**	**393.13**	**8.34**	**30.17%**

The active portfolio in Cameroon as at 30 September 2017 comprises 23 projects with total commitments of UA 1 037 445 456, broken down as follows: UA 912 802 593 for the public sector (13 national projects and 6 regional projects) and UA 124 642 863 for the private sector (4 projects).

Graph 1 : Overall portfolio breakdown



Graph 2 : Public portfolio breakdown