

Document of
The World Bank

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Report No: 125188-BJ

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROGRAM APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF EURO 138 MILLION
(US\$170 MILLION EQUIVALENT)
FROM SCALE UP FACILITY

AND A

PROPOSED GRANT

IN THE AMOUNT OF SDR 34.4 MILLION
(US\$50 MILLION EQUIVALENT)

TO THE

REPUBLIC OF BENIN

FOR THE

RURAL WATER SUPPLY UNIVERSAL ACCESS PROGRAM FOR RESULTS

April 24, 2018

Water Global Practice
Africa Region

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CURRENCY EQUIVALENTS

Exchange rate as of March 31, 2018

US\$1 = Euro 0.81126029

US\$1 = SDR 0.68782414

US\$1 = 532 XOF (West African CFA franc)

ABBREVIATIONS AND ACRONYMS

ACEP	Water Users' Association <i>Association des Consommateurs d'Eau Potable</i>
ANAEMR	Rural Water Supply National Agency <i>Agence Nationale d'Approvisionnement en Eau Potable en Milieu Rural</i>
ANLC	National Anti-Corruption Authority <i>Autorité Nationale de la Lutte contre la Corruption</i>
ARMP	Public Procurement Regulatory Authority <i>Autorité Nationale de Régulation des Marchés Publics</i>
ASTER	Treasury System Software
BAI	Presidency's Office for Analysis and Investigation <i>Bureau d'Analyses et d'Investigation</i>
CAA	Autonomous Amortization Fund <i>Caisse d'Amortissement Autonome</i>
CBO	Community-based Organization
CENTIF	National Anti-Money Laundering Unit <i>Cellule Nationale de Traitement des Information Financières</i>
CFME	Training Center for Water Professionals <i>Centre de Formation aux Métiers de l'Eau</i>
CLTS	Community-Led Total Sanitation
CMAI	Internal Audit Committees <i>Comités Ministériels d'Audit Interne</i>
CMMR	Ministerial Risk Management Committees <i>Comités Ministériels de Maitrise des Risques</i>
CMP	Public Procurement Code <i>Code des Marchés Publics</i>
CPF	Country Partnership Framework
CPS	Country Partnership Strategy
CRD	Dispute Settlement Commission <i>Commission de Règlement des Différends</i>
CRD	Regional Development Committee <i>Comité Régional de Développement</i>
DA	Designated Account
DDCMP	Departmental Directorate of Procurement <i>Direction Départementale de Contrôle des Marchés Publics</i>
DGDU	Urban Development Directorate <i>Direction Générale du Développement de l'Urbanisme</i>
DG-Eau	General Directorate for Water <i>Direction Générale de l'Eau</i>
DGTCP	Treasury and Public Accounting Directorate <i>Direction Générale du Trésor et de la Comptabilité Publique</i>
DLI	Disbursement-Linked Indicator

DNCMP	National Public Procurement Directorate or National Central Directorate of Procurement <i>Direction Nationale de Contrôle des Marchés Publics</i>
DNSP	National Public Health Directorate <i>Direction Nationale de la Santé Publique</i>
EIA	Environmental Impact Assessment
ESM	Environmental and Social Management
ESMP	Environmental and Social Management Plan
ESSA	Environmental and Social Systems Assessment
FAD	Finance and Administrator Director
FCFA	West African CFA franc
FM	Financial Management
FPA	Framework Partnership Agreement
FY	Fiscal Year
GAC	Governance and Anti-Corruption
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GiZ	German Corporation for International Cooperation <i>Deutsche Gesellschaft für Internationale Zusammenarbeit</i>
GoB	Government of Benin
GRGES	Environmental and Social Management Guidelines <i>Guide Référentiel pour la Gestion Environnementale et Sociale</i>
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
GWSP	Global Water Security and Sanitation Partnership
IFR	Interim Financial Report
IFSA	Integrated Fiduciary Systems Assessment
IGF	Inspectorate General of Finance <i>Inspection Générale des Finances</i>
IGM	Inspectorate General of the Ministry <i>Inspection Générale du Ministère</i>
IRR	Internal Rate of Return
INSAE	National Institute for Statistics and Economic Analysis <i>Institut National de la Statistique et de l'Analyse Economique</i>
INTOSAI	International Organization of Supreme Audit Institutions
IVA	Independent Verification Agent
JICA	Japan International Cooperation Agency
JMP	Joint Monitoring Program
KfW	German Government-owned Development Bank <i>Kreditanstalt für Wiederaufbau</i>
LOLF	Organic Budget Law
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
MEM	Ministry of Water and Mines <i>Ministère de l'Eau et des Mines</i>
MICS	Multiple Indicator Cluster Surveys
MoH	Ministry of Health
MoU	Memorandum of Understanding
NGO	Non-Governmental Organization
NPV	Net Present Value
NRW	Non-Revenue Water

OFOR	Rural Boreholes Agency <i>Office des Forages Ruraux</i>
PAG	Government Action Plan <i>Programme d'Actions du Gouvernement</i>
PAP	Program Action Plan
PAPHyR	Rural Sanitation Access and Hygiene Improvement Program <i>Programme d'Amélioration de l'Accès à l'Assainissement et des Pratiques d'Hygiène en milieu Rural</i>
PDDAEPMR	National Master Plan for the Development of the Rural Water Supply Sector <i>Plan Directeur de Développement du sous-secteur de l'Approvisionnement en Eau Potable en Milieu Rural</i>
PDO	Program Development Objective
PEFA	Public Expenditure and Financial Accountability
PEMFAR	Public Expenditure Management and Financial Accountability Review
PEPRAU	Small Town Water Supply and Urban Septage Management Project
PFM	Public Financial Management
PforR	Program-for-Results
PGSSE	Drinking Water Safety Management Plan <i>Plan de Gestion de la Sécurité Sanitaire de l'Eau</i>
PIP	Program for Priority Investment
PPP	Public-Private Partnership
RAP	Resettlement Action Plan
SAI	Supreme Audit Institution
SCD	Systematic Country Diagnostic
SDG	Sustainable Development Goal
SDR	Special Drawing Rights
SEA	Strategic Environmental Assessment
SIGFIP	Financial Management Software
SIGMAP	Procurement Software
SONEB	Urban Water Utility of Benin <i>Société Nationale des Eaux du Bénin</i>
SUF	Scale-up Facility
SVGF	Village Committee for Land Management <i>Structures Villageoises de Gestion Foncière</i>
TA	Technical Assessment
TSSAI	Treasure Saving Service Account for Investment
UNICEF	United Nations International Children's Emergency Fund
WA	Withdrawal Application
WAEMU/UEMOA	West Africa Economic and Monetary Union
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WSS	Water Supply & Sanitation
XOF	West African CFA franc

Regional Vice President:	Makhtar Diop
Country Director:	Pierre Frank Laporte
Senior Global Practice Director:	Guang Zhe Chen
Practice Manager:	Steven Schonberger
Task Team Leaders:	Charles Delfieux, Sophie Trémolet

REPUBLIC OF BENIN
RURAL WATER SUPPLY UNIVERSAL ACCESS PROGRAM

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PAD DATA SHEET
REPUBLIC OF BENIN
Rural Water Supply Universal Access Program
(Programme AQUA-VIE)

PROGRAM APPRAISAL DOCUMENT
Africa Region
Water Global Practice

Basic Information			
Date:	May 15, 2018	Sectors:	Water supply (100%)
Country Director:	Pierre Frank Laporte	Themes:	Rural services and infrastructure (80%); Public-Private Partnerships (20%)
Practice Manager	Steven Schonberger /		
Senior Global Practice Director:	Guang Zhe Chen		
Program ID:	P164186		
Team Leaders:	Charles Delfieux Sophie Trémolet		
Program Implementation Period		Start Date: May 15, 2018	
		End Date: June 30, 2024	
Expected Financing Effectiveness Date:	October 31, 2018		
Expected Financing Closing Date:	June 30, 2024		
Program Financing Data			
<input type="checkbox"/> Loan	<input checked="" type="checkbox"/> Grant	<input type="checkbox"/> Other	
<input checked="" type="checkbox"/> Credit			
For Loans/Credits/Others (US\$M):			
Total Program Cost:	240	Total World Bank Financing:	220
Total Co-financing:	20	Financing Gap:	0
Financing Source	Amount (in million)		
BORROWER/RECIPIENT	US\$20		
IDA Grant	US\$50		
IDA Scale-Up Facility	US\$170		
Total	US\$240		

Borrower: *Republic of Benin*

Responsible Agency: *Ministry of Finance*

Contact: *Mr. Servais ADJOVI*

Title: *Directeur de Cabinet*

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Implementing Agency : *Agence Nationale d'Approvisionnement en Eau Potable en Milieu Rural (ANAEMR, Rural Water Supply Agency)*

Contact: *Mr. Sylvain ADOKPO MIGAN*

Title: *Directeur Général*

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Expected Disbursements (in US\$ Million)

Fiscal Year	2019	2020	2021	2022	2023	2024			
Annual	20.0	43.0	61.0	42.0	36.0	18.0			
Cumulative	20.0	63.0	124.0	166.0	202.0	220.0			

Program Development Objective(s)

To increase access to water supply services and to strengthen service delivery arrangements in selected rural areas.

Compliance

Policy

Does the program depart from the CAS in content or in other significant respects? Yes [] No [X]

Does the program require any waivers of Bank policies applicable to Program-for-Results operations? Yes [] No [X]

Have these been approved by Bank management? Yes [] No []

Is approval for any policy waiver sought from the Board? Yes [] No [X]

Does the program meet the Regional criteria for readiness for implementation? Yes [X] No []

Overall Risk Rating: Substantial

Conditions

Source of Fund	Name	Type
IDA SUF Credit and IDA Grant	Subsidiary Agreement, Article V, 5.01	Effectiveness

Description of Condition:

The Subsidiary Agreement has been duly executed on behalf of the Recipient and the Program Implementing Entity under terms and conditions satisfactory to the World Bank.

Legal Covenants

Name	Recurrent	Due Date	Frequency
Independent Verification Agent of the Program's results (Schedule 2, Section I, A, 2(a) of the Financing Agreement for the credit and grant; and Section IV, 1(a) of the Program Agreement)		January 31, 2019	

Description of Covenant:

The Recipient shall, through the Program Implementing Entity, not later than three (3) months after the effective date, engage an Independent Verification Agent under terms of reference with qualifications and experience acceptable to the World Bank (“Verification Agent”), to prepare and provide verification reports certifying the achievement of the DLRs, all in accordance with the procedures and arrangements acceptable to the World Bank.

Name	Recurrent	Due Date	Frequency
Program Operational Manual (Schedule 2, Section I, C, 1 of the Financing Agreement for the credit and grant, and Section I, B, 1 of the Program Agreement)		January 31, 2019	

Description of Covenant:

The Recipient, through the Program Implementing Entity, shall no later than three (3) months of the effective date, update and thereafter maintain a manual acceptable to the World Bank (“Program Operational Manual”), containing detailed arrangements and procedures for: (a) institutional coordination and day-to-day execution of the program; (b) monitoring, evaluation, reporting and communication; (c) administration, financial management and accounting; and (d) such other administrative, technical and organizational arrangements, and procedures as shall be required for purposes of implementation of the Program.

Team Composition

Bank Staff

Name	Title	Specialization	Unit
Georges COMAIR	Water Resources Management Specialist	Water Resources Engineer	GWA07
Gertrude COULIBALY ZOMBRÉ	Senior Social Development Specialist	Social Management	GSU01
Charles DELFIEUX	Senior Water Supply and Sanitation Specialist	Team Leader (ADM responsible)	GWA07
Angelo DONOU	Financial Management Specialist	Financial Management	GGO26
Matar FALL	Lead Water and Sanitation Specialist	Water and Sanitation Specialist	GWA07
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Issa THIAM	Finance Officer	Disbursement	WFACS
Sophie TRÉMOLET	Senior Economist	Team Leader	GWAGP

Non-Bank Staff

Name	Title	City
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Angelo BONFIGLIOLI	Environmental Specialist	FRANCE
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Dominique PREUX	Training Specialist	Paris, FRANCE
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I. STRATEGIC CONTEXT

A. Country Context

1. ***Despite achieving solid economic growth, poverty levels in Benin have been rising, especially in rural areas.*** During the period 2000-2015, real gross domestic product (GDP) in Benin grew on average by 4.3 percent annually and accelerated slightly during the last five-year period (2011-2015) to 4.7 percent.¹ During the same period, the population growth has been 3.2 percent per year, placing a significant strain on the country's ability to maintain access to basic social services. The poverty rate increased from 37.5 percent in 2006 to 40.1 percent in 2015.² Important disparities between urban and rural poverty persist, with rates estimated at 35.8 percent and 43.6 percent respectively.³ Per capita income was US\$800 in 2016. The Human Development Index was estimated at 0.48 in 2015, with Benin ranking 167th amongst 188 countries.⁴ Inequality in the distribution of per capita income is moderately high, with a Gini index of 41 in 2015.

2. ***Presidential elections in March 2016 marked a transition to new leadership.*** Patrice Talon took up office as President of the Republic of Benin in April 2016, vowing to establish a right-sized administration based on competence. In October 2016, the Council of Ministers adopted the Government's Action Program (*Programme d'Action du Gouvernement – PAG*), 2016–2021 worth FCFA 9,039 billion (US\$15.3 billion or 170 percent of GDP) to develop the potential for higher domestic value-added activities in the agriculture and tourism sectors, identified as major potential sources of growth. The PAG includes 45 flagship projects in key economic sectors (including three in the water sector), many of which are being funded through public-private partnerships (PPP). Some of these flagship projects are led by agencies overseen directly by the President's office.⁵

3. ***Providing universal access to water supply services is a priority for the Government of Benin (GoB).*** According to the PAG, the GoB aims to provide universal access to water supply in both urban and rural areas by 2021, for a total estimated cost of FCFA 456 billion (US\$820 million).⁶ In the rural water sector, in particular, the GoB is advancing fast. In May 2017, the GoB adopted the National Strategy for Rural Water Supply (*Stratégie Nationale d'Approvisionnement in Rural Areas, 2017-2030*) to operationalize the PAG 2016-2021 and build on lessons from implementation of the former national rural water strategy that applied to the 2005-2015 period. A National Master Plan for the Development of the Rural Water Supply Sector (*Plan Directeur de Développement du sous-secteur de l'Approvisionnement en Eau Potable en Milieu Rural – PDDAEPMR*) was prepared to operationalize this strategy with support from the Water and Sanitation Program and finalized in May 2017. The total cost for implementing the PDDAEPMR is estimated at FCFA 314 billion (US\$560 million). To implement this strategy, the GoB set up a dedicated executing agency in charge of delivering on this objective, the Rural Water Supply National Agency (*Agence Nationale pour l'Approvisionnement en Eau Potable en Milieu Rural –*

¹ Systematic Country Diagnostic (SCD), July 21, 2017.

² Systematic Country Diagnostic (SCD), July 21, 2017 & INSAE, EMICoV 2006-15 *National Poverty and Inequality Rates 2006-2015*.

³ World Bank. 2016. Benin - Performance and Learning Review for CPS for the period FY13-17.

⁴ Human Development Index

⁵ Programme d'Actions du Gouvernement PAG (2016-2021)

⁶ Programme d'Actions du Gouvernement : Actions 43 & 44 (PAG 2016-2021)

ANAEPMR) in 2017. The ANAEPMR is in the process of establishing new rural water services management models to be implemented in parallel with the execution of the investment program.

B. Sectoral and Institutional Context

4. **Access to Water Supply and Sanitation (WSS) services.** Benin has a population of 10.8 million inhabitants, of which 45 percent is urban and 55 percent is rural.⁷ While Benin met its Millennium Development Goals (MDG) targets for access to improved water sources, with 81 and 71 percent access rates in urban and rural areas respectively, significant improvements will be needed to achieve the higher service levels and targets reflected in the Sustainable Development Goals (SDG).⁸ Access to improved water sources in rural areas is provided through rural piped water supply systems, hand pumps or autonomous water points.⁹ According to the joint World Health Organization (WHO)/United Nations International Children's Emergency Fund (UNICEF) Joint Monitoring Program (JMP), only 30 percent of the rural population has access to piped water, compared to 57 percent for the urban population.¹⁰ The GoB monitors service coverage in rural areas based on an average number of people per water point and per household connection.¹¹ As of 2017, average service coverage in rural areas stood at 42 percent countrywide, with high disparities across departments (departmental averages range between 32.6 to 61.6 percent) and even greater disparities between municipalities (municipal averages range from 9 to 71 percent).

5. Access to improved sanitation facilities is notably low with only 25 and 5 percent of the urban and rural population having access to such facilities.¹² The rate of open defecation is estimated at 55 percent at the national level; it is particularly high in rural areas (76 percent) whilst open defecation remains a common practice also in urban areas where 25 percent of the population still defecates in the open. Sewerage networks are virtually non-existent, with less than 1 percent of households connected to a sewerage network. Households with improved sanitation facilities rely on simple dry latrines, ventilated pit latrines, flush toilets and septic tanks.

6. **Institutional framework for the WSS sector.** The Ministry of Water and Mines (*Ministère de l'Eau et des Mines* – MEM) is in charge of formulating policy for the water supply sector. Water service arrangements differ between urban areas and rural areas.¹³ Benin's National Water Company (*Société Nationale des Eaux du Bénin* - SONEB) serves urban areas, which comprise of the municipalities of Cotonou, Porto-Novo and Parakou and of the 74 towns heading the other municipalities (as well as surrounding peri-urban areas). The GoB initiated a reform to split SONEB into a publicly-owned asset-holding company, which will operate under a concession contract with the GoB and a privately-owned operator which will operate under an affermage contract. Rural areas include all other territories. According to the decentralization law, municipalities are responsible for providing water supply services on their territory. They are operating under the control and with support of the General Directorate for Water (*Direction*

⁷ Nouvelle Stratégie Nationale d'Approvisionnement en Eau Potable en Milieu Rural (SNAEP_MR) 2017-2030-Annex D page 41.

⁸ WHO/UNICEF JMP (2017).

⁹ Approximately 620 piped rural water supply systems currently exist in Benin. They are generally made of boreholes pumping to an elevated storage tank connected to a network distribution system supplying household connections and standpipes. There are approximately 12,200 handpumps. *Plan Directeur de Développement du sous-secteur de l'Approvisionnement en Eau Potable en Milieu Rural* – PDDAEPMR (2017)

¹⁰ WHO/UNICEF JMP (2017.)

¹¹ The coverage rate is estimated by the GoB based on 250 people per water point and 24 people per household connection

¹² WHO/UNICEF JMP (2017).

¹³ Benin has 77 municipalities (*communes*) spread across 12 departments. A main town is the seat of each municipality (*chef lieu de commune*).

Générale de l'Eau - DG-Eau) within MEM, which has deconcentrated services throughout the national territory providing technical support to municipalities and theoretically monitoring service provision. The regulation arrangements for tariff and service standards in the WSS sector are not operational.

7. ***Service delivery arrangements in rural areas.*** Municipalities provide water services themselves or delegate this responsibility to a different entity, including a private operator or a community-based organization. Since 2007, municipalities have been encouraged to delegate water supply service delivery to private operators through affermage contracts. In 2017, approximately 55 percent of the 620 existing rural piped water supply systems were operated by a private operator. The affermage model has however not brought the full expected benefits in terms of fostering professionalization and sustainability of service delivery, due mainly to the following factors: (i) lack of capacity of the municipalities to design and supervise the implementation of affermage contracts; (ii) small scale of the private operators, which limits the extent to which they can attract professional staff and mobilize financing; and (iii) difficulties encountered by municipalities to fulfill their financial obligations to rehabilitate and expand the water supply system as part of the affermage agreement. To address identified shortcomings with the affermage contracts and shift more investment responsibilities towards private operators, the World Bank supported a pilot project (P132114) to let subsidized concessions for 10 water supply systems to three local private operators. Under these contracts, private operators are expected to invest in system rehabilitation and expansion and can access public funds to offer subsidized household connections to their customers.¹⁴ These eight-year contracts were signed in 2014 and are currently operating.¹⁵ The experience with implementation of these contracts has been differing, as some of the operators suffered from a lack of predictability in the transfer of public subsidies and invested less than was initially expected. There is however some evidence that service quality has improved in their service areas.

8. ***Ongoing reforms in the rural water supply sector.*** In 2017, the GoB created the ANAEPMR with the objective to expand access to water supply services in rural areas more rapidly and deliver universal access to rural water supply services by 2021. The ANAEPMR was established as an asset-holding company for rural water supply services: it is in charge of investments (to construct new infrastructure and rehabilitate existing ones), of contracting private operators and of monitoring service delivery.¹⁶ The ANAEPMR is under the supervision of the Presidency and its sectoral Ministry is the MEM. The creation of ANAEPMR has led to a need to redefine institutional roles and responsibilities in the rural water sector, a process that is currently ongoing.

9. ***Service delivery arrangements for sanitation.*** Responsibilities for sanitation are split between several institutions. The National Public Health Directorate (*Direction Nationale de la Santé Publique* – DNSP) within the Ministry of Health (*Ministère de la Santé* - MoH) is in charge of formulating sector policy for hygiene and sanitation, with a particular focus on on-site sanitation facilities in rural and urban areas. Households are responsible for constructing on-site sanitation

¹⁴ Funding for subsidies were provided by the Dutch Embassy (US\$1 million). However, allegations of improper use of funds in 2015 related to Dutch water programs in Benin put those payments on hold.

¹⁵ World Bank (2015) *Benin – Innovative public private partnerships for rural water services sustainability – a Case Study*, by Sylvain Adokpo Migan with Trémolet Consulting.

¹⁶ Decree No 2017-039 of January 25, 2017.

facilities and receive no financial assistance for doing so. In urban areas, the Urban Development Directorate (*Direction Générale du Développement de l'Urbanisme – DGDU*) within the Ministry of the Living Environment and Sustainable Development (*Ministère du Cadre de Vie et du Développement Durable*) is in charge of formulating policy for the sanitary transport of wastewater and fecal sludge. The collection and disposal of fecal sludge is performed by private sludge emptying trucks, which are poorly regulated. An ongoing World Bank project, the PEPRAU (Small Town Water Supply and Urban Septage Management Project - P156738) is financing construction of a fecal sludge treatment plant in the east of the Grand-Nokoué region. The PEPRAU will also finance institutional strengthening activities in the urban sanitation field, with the objective of better structuring the sector, clarifying roles and responsibilities, incentivizing households to build improved sanitation facilities and supporting the development of private sector participation in the urban sanitation sector.

10. **Quality and efficiency of water supply services.** In urban areas, the latest performance indicators reported by SONEB for 2016 indicate relatively efficient management of water supply services, with a Non Revenue Water (NRW) ratio at 23 percent, collection rate at 93 percent, staff per 1,000 connections at 3.6 and operating cost coverage at 1.50.¹⁷ SONEB's service coverage stands at 76 percent (with 245,456 customers at the end of 2016) but cannot keep up with urban growth. Average consumption (38 l/person/day) is low by urban standards. No regulatory arrangements are in place to enable verification of performance. For rural areas, no consolidated information on service performance is available at the national level. Information on assets and performance for 150 rural piped water supply schemes is collected through a web-based platform which allows private operators to prepare management reports for submission to municipalities and the DG-Eau deconcentrated services. This database collects information on existing assets (with geo-referencing) as well as operational data, including volumes of water produced and distributed, frequency of service interruptions, the number of customers (active and inactive), volumes of water billed and bill collections. For the small sample of systems included in the database, the average water loss rate was 33 percent (ranging from 20 to 55 percent). The average number of hours of service was five hours per day and 21 per cent of the systems had no chlorination system (most other systems used chlorine injected directly in the water tank). The DG-Eau and municipalities do not currently compile information or use it effectively for service monitoring or benchmarking at national level. The DNSP is in charge of approving and monitoring the compliance of the Drinking Water Safety Management Plan (*Plan de Gestion de la Sécurité Sanitaire de l'Eau – PGSSE*) that service providers shall prepare and implement. However, it is currently barely enforced.

11. **Affordability of water supply services.** Tariffs for rural water services vary from one locality to the next. Tariffs for water sold by private service providers are on average FCFA 500 (US\$0.94) per m³, ranging between FCFA 425 and 550 per m³ for the systems that had provided information. Water sold through standpipes includes the margin charged by standpipe operators and is considerably more expensive at FCFA 800 (US\$1.4) per m³. This is equivalent to a monthly cost of FCFA 2,880 (US\$5) per household, based on an average consumption of 20 l/person/day and a household of six people.¹⁸ This represents 2 percent of the monthly monetary poverty threshold of FCFA 140,800 (US\$250) and is below the maximum percentage considered

¹⁷ Water Utility Turnaround Framework, World Bank, 2017 and SONEB's management report for 2016.

¹⁸ PDAAEPMR (2017). Information based on a sample of 12 municipalities across the country.

affordable but could affect the poorest households more (no information is available on water service levels by income quintiles). Water in rural areas is also considerably more expensive than in urban areas: it is four times higher than the social tariff applied by the urban water utility (SONEB) to households which consume below 5 m³ per month, which is FCFA 198 per m³ (US\$0.37).

12. **External support for WSS.** The WSS sector is supported by several Development Partners, including multilateral partners such as the World Bank, UNICEF, the European Investment Bank and the European Union, the Islamic Development Bank, the African Development Bank, bilateral partners including the Netherlands, Germany, Japan and China and numerous Non-Governmental Organizations (NGOs). In December 2016, the World Bank approved the PEPRAU, its first lending operation in the WSS sector since the closing of the Rural Water Supply and Sanitation Project (P000121) in December 2000.

13. **Water resources management.** Even though surface water sources are abundant in Benin, groundwater resources traditionally constitute most of the drinking water sources. The main reason for the limited use of surface water sources are the high initial capital costs (i.e. construction of large infrastructure such as dams, canals, etc.) and potentially higher water treatment costs. Currently, Benin lacks good knowledge and management of its water resources. The Directorate of Water Resources Management within the MEM does not have the human, technical and financial resources to carry out water resources monitoring activities in an efficient manner.

C. Relationship to the CPF and Rationale for Use of Instrument

14. **Rationale for World Bank Engagement.** The Program is well aligned with the new Country Partnership Framework (CPF) for FY19-FY23¹⁹. The Program will directly contribute to the CPF's Objective 2 "Improving the quality of infrastructure". It aims to deliver water services to the poorer rural populations of Benin with multiple impacts on improved living conditions, health, school attendance, productivity and income particularly for women and girls. It responds to a demand of the GoB to support the implementation of one of its priorities, as defined at the highest level by the President of Benin. The proposed Program constitutes a significant scale-up for the World Bank engagement in the WSS sector, which started with the technical assistance from the Water and Sanitation Program, followed by the PEPRAU under implementation. The World Bank is well positioned to bring added value through its experience gained in the rural water supply sector in Sub-Saharan Africa and globally.

15. **Maximizing Financing for Development.** The proposed Program will help mobilize investments from private operators (who will be expected to self-finance, through their remuneration, part of the investments in renewal and rehabilitation, as part of their contractual obligations under the affermage contracts²⁰) and from water service users, through their investment in the non-subsidized component of the household connection cost.²¹ Whilst the PEPRAU will lead to the establishment of a guarantee fund for small-scale private operators, the Global Water

¹⁹ Report No. 123031-BJ.

²⁰ It is not possible to estimate at this stage such a contribution of the private operators as it will depend on the affermage's final contractual obligations that will be defined during the Program implementation.

²¹ FCFA 20,000 or US\$38 per household connection

Security and Sanitation Partnership (GWSP), a Trust Fund managed by the World Bank, will help with assessing the financing needs of regional private operators and to identify whether similar arrangements need to be established or tailored to their requirements to facilitate access to finance.

16. ***Choice of Financing Instrument.*** The choice of the Program-for-Results (PforR) instrument responds to the GoB's request to (i) shift the focus towards results rather than investment execution; (ii) progressively consolidate the execution of all rural water supply activities under harmonized country systems; (iii) take advantage of the preparation of the Program to identify opportunities to strengthen country systems; and (iv) create financial incentives to address bottlenecks for the implementation of the Program. The PforR is thus considered an appropriate instrument to support the proposed Program. The GoB has confirmed its strong commitment towards this instrument.

II. PROGRAM DESCRIPTION

A. Government program

17. ***Providing universal access to water supply services is the GoB's priority.*** The GoB aims at financing and executing an ambitious plan to provide universal access to water supply in both urban and rural areas.²² To achieve this objective, the GoB aims to allocate public sector financing and leverage PPPs where possible. The GoB has demonstrated a high level of commitment to achieving this goal, with adequate planning, upstream institutional reforms, allocation of public funds and mobilization of both donor and private financing.

18. ***GoB's planned investments for universal rural water supply.*** The PDDAEPMR provides an estimate of the investment needed to achieve universal coverage with improved rural water services.²³ According to the Plan, universal coverage will be achieved when all rural population has access to water supply services within a 30 minute-round trip to fetch water. This will be measured based on the number of standpipes and household connections in service, using the assumptions that each public standpipe serves 250 people whereas each household connection serves 24 people. The PDDAEPMR also envisages that, by 2021, half of the rural population will have access to water supply at home. Universal coverage will be achieved through the construction of new piped water systems, the rehabilitation or expansion of existing piped water systems as well as through the construction or rehabilitation of hand pumps. The latter are mainly considered to be a transitory solution towards piped water supply, as there is strong demand in rural areas for piped water supply solutions and for household connections in particular. Investments needed for providing universal access to water supply in rural areas were estimated at FCFA 314 billion (US\$560 millions) in the PDDAEPMR and would benefit approximately 5.5 million beneficiaries. The investment needs are split between the construction of new piped water systems, rehabilitation or expansion of existing piped water systems (76 percent of the total of investment estimates) and the construction or rehabilitation of hand pumps (24 percent). This expenditure program is expected to be financed through GoB's own resources and Development Partners financing. Its implementation is to be executed by the ANAEPMR and started in early 2018. The

²² Programme d'Actions du Gouvernement : Actions 42, 43, 44 (PAG 2016-2021).

²³ 26,426 rural localities are included in 74 of Benin's 77 municipalities.

table below illustrates the contribution of the Program to the Government program as further detailed in the following section.

19. *To ensure delivery of quality and sustainable services, the GoB also wants to implement reforms to strengthen service delivery arrangements* through the ANAEPMR in charge of developing the sector’s assets and delegating service delivery to private operators recruited under regional affermage contracts within an appropriate regulatory framework.

Table 1: Program contribution to the Government program

Government program		Programme AQUA-VIE (PforR Program)
<i>Increase access to water supply service</i>	Construction of new piped water systems, rehabilitation or expansion of existing piped water systems in 74 municipalities	Will finance nearly 50 percent of the total investment needs, with a focus on localities with lower access to rural water supply services (Results Area 1)
	Rehabilitation of hand pumps in 74 municipalities	-
<i>Strengthen service delivery arrangements</i>		Will finance key contribution (Results Area 2)

B. Program Development Objective and key results

20. *The Program Development Objective (PDO)* is to increase access to water supply services and to strengthen service delivery arrangements in selected rural areas.

21. *Key Results Indicators.* Achievement of the PDO will be measured through the following indicators:

- People provided with access to improved water sources (including female) [Number]
- Piped rural water supply systems managed by regional operators [%]
- Publication by the ANAEPMR of bi-annual service monitoring reports [Number]

C. PforR Program Scope

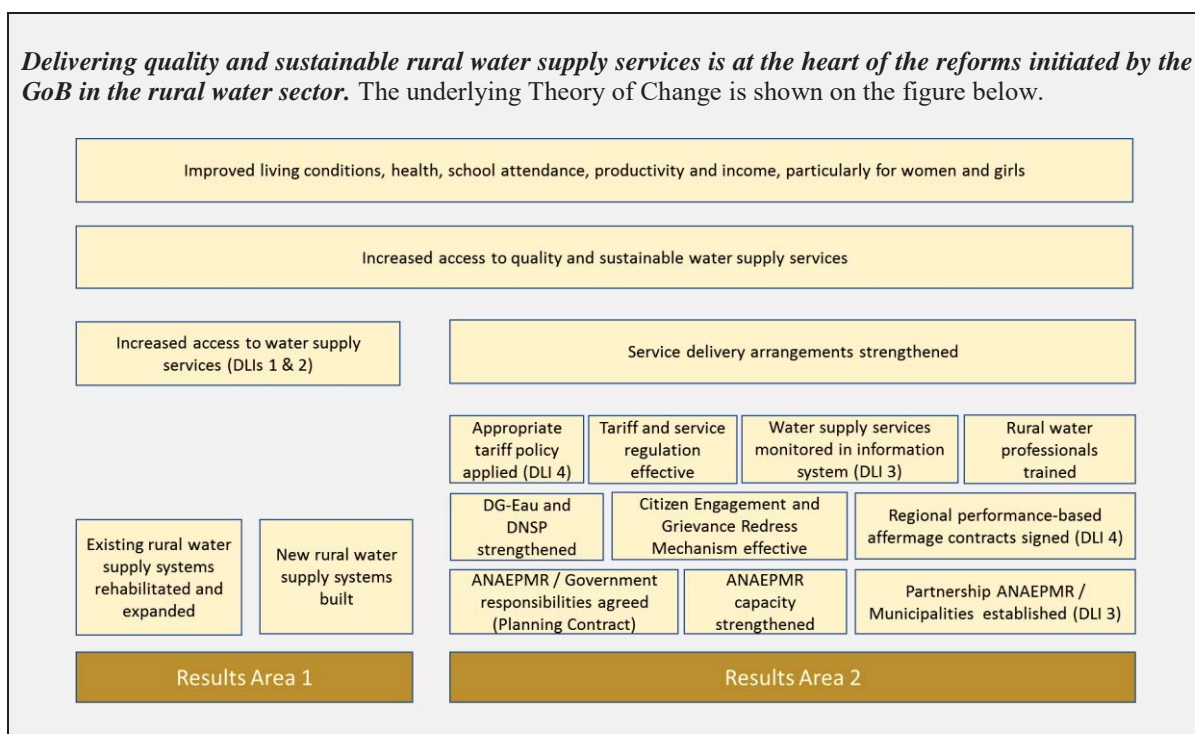
22. *The Rural Water Supply Universal Access Program (Programme AQUA-VIE) will support a considerable investment program to increase access to rural water supply services as well as ambitious reforms to strengthen service delivery arrangements.* The proposed PforR is embedded in GoB’s priorities to provide universal access to water supply services and to professionalize service delivery. The Program is structured around two Result Areas.

23. Firstly, the Program will support investments in piped rural water supply systems to rapidly expand access to support the GoB achieve its ambitious targets for the sector.

24. Secondly, the Program will strengthen service delivery arrangements through comprehensive reforms of the rural water supply sector, based on the following principles: (i) delegation of provision of rural water supply services to the ANAEPMR as the asset-holding company for the development of rural water supply systems, and the establishment of accountability mechanisms between the ANAEPMR, the GoB, municipalities and citizens; (ii) delegation of service delivery to private operators through regional performance-based affermage contracts with the aim to improve the quality and sustainability of the expanded water supply systems; and (iii) development and approval of appropriate tariff policy and regulation arrangements to contribute to sector financial sustainability.

25. **Rationale for the proposed reforms to strengthen service delivery arrangements.** The proposed reforms build on lessons learned from the decentralization process, from a decade of experience with private sector participation in rural water supply services in the country, and from similar reforms supported by the World Bank in the region. Existing institutional models for rural water service delivery have not translated into the full expected benefits in terms of expanding access, improving service and ensuring sustainability. This is particularly due to difficulties faced by municipalities to design, bid and manage performance-based contracts and to fulfill their financial obligations to invest in rehabilitation and expansion of water supply systems. In addition, professionalization of services has remained limited, due to the fact that existing private operators and other service providers operate at a small scale and have limited access to finance. The principles of the reforms mentioned above have been designed to address these sector challenges.

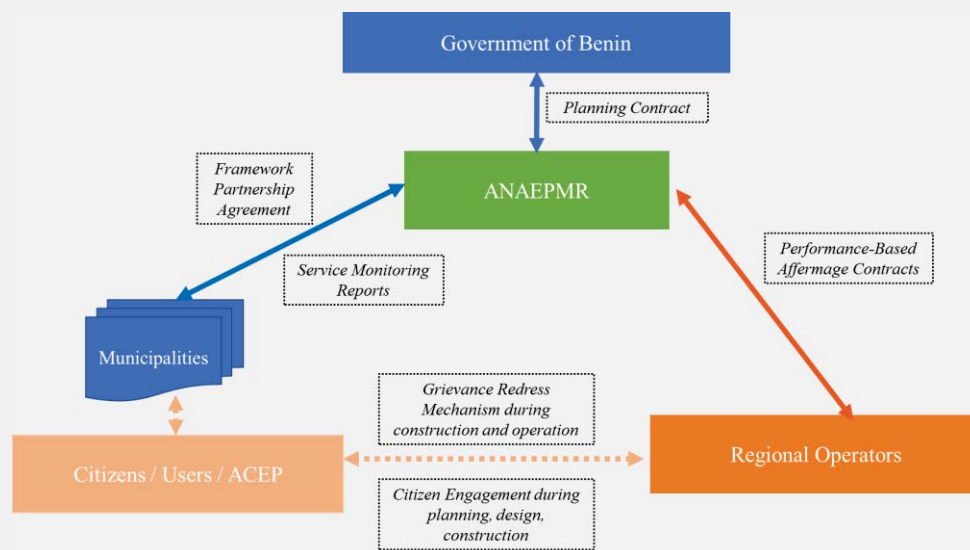
Box 1: Theory of Change – Delivering quality and sustainable rural water supply services



This Theory of Change assumes that the strengthening of the service delivery arrangements supported by the Program will lead to improved quality and sustainability of the expanded access in rural areas.

Service delivery arrangements will be strengthened as the ANAEPMR will have greater capacity to design, contract and monitor the performance of works contractors and private operators developing rural water supply assets as well as monitor service delivery. Also, performance-based affermage contracts will introduce strong incentives for the regional operators to deliver on expanding access and improving service quality and sustainability. Larger service areas will allow for attracting more professional operators, with greater ability to attract trained personnel and necessary finance, and a greater interest in delivering good quality and sustainable services to maintain their reputation. Signing a limited number of regional contracts will facilitate performance monitoring. Data collection will be performed through a reliable web-based platform and the ANAEPMR will produce regular reports on asset management and service performance. These reports will be publicly available and will allow municipalities and Government to ensure that services are adequately performed and be accountable to their citizens. Tariffs will be regulated by the Government to ensure financial viability of the regional operators as well as to contribute to the financing for the development of the rural water supply systems. Where tariff proceeds are not sufficient, the Government will commit to allocate sufficient funding, including through the Planning Contract signed with the ANAEPMR, to cover the costs of service expansion and rehabilitation as and when necessary.

Achieving these expected outcomes will only be possible if adequate checks and balances are in place. These checks and balances will be established as shown below. The Planning Contract and service monitoring reports will make the ANAEPMR accountable for its responsibilities defined in the Framework Partnership Agreements (FPAs). The regional affermage contracts will be performance-based and will incentivize the operators to deliver improved services. Citizen engagement and grievance redress mechanisms will ensure citizens and users are consulted and can voice their needs and concerns during planning, design, construction and operation phases.



The full design and implementation of the reforms supported by the Program will take time, and will be achieved during the Program implementation. These reforms will lay solid foundations for strengthening service delivery arrangements and therefore for the long-term improvement of quality and sustainable rural water supply services at the national level.

26. **PforR Program boundaries.** The Program will finance a portion of the GoB’s planned program of expenditures in universal rural water supply over the period 2018-2024. More specifically, the Program will support the construction, rehabilitation and expansion of piped rural

water supply systems in selected localities with lower access to rural water supply services²⁴ of the municipalities having signed the FPA. Thus, the Program will correct existing disparities in access as identified in the PDDAEPMR and in line with Government’s priorities. In addition, the Program will strengthen institutional capacities of the ANAEPMR as the rural water sector’s asset holding company and enable the implementation of professionalized service delivery models through regional performance-based affermage contracts in the 74 municipalities where rural water services are provided.²⁵

27. ***PforR Program financing.*** The Program has an estimated total cost of US\$240 million, The World Bank will provide the majority of the financing totaling US\$220 million, which will include a credit from the IDA Scale-up Facility (SUF) in the amount of US\$170 million, and US\$50 million in the form of an IDA grant, whereas the GoB will provide US\$20 million from its own resources. The total budget represents 42 percent of the total estimated financial needs to implement the PPDAEPMR.

Table 2: Program financing (US\$ million)

Source	Amount
Borrower	20
IDA	50
IDA Scale-Up Facility	170
Total Program financing	240

28. ***Description of the Program activities.*** The Program activities are structured in two Results Areas. All Program activities will be executed by the ANAEPMR.

29. ***Results Area 1: Increase access to water supply services.*** Under this Result Area, the Program will support investments in piped rural water supply systems to rapidly expand access, at a pace not previously experienced in the country. This will be supported through:

- ***1.1. Construction of new water supply systems,*** including (i) the construction of production, pumping, treatment and storage infrastructure, distribution networks, standpipes, and household connections; and (ii) development of associated studies and works supervision. It is estimated that the Program will finance the construction of 270 new water supply systems. The production, pumping, treatment and storage infrastructure, distribution networks and standpipes will be constructed by works contractors. Responsibility for the operation of the new water supply systems will be delegated to the regional operators at completion of the works. The regional operators will be in charge of maintaining the networks as well as constructing new household connections as part of their performance-based affermage contracts.

²⁴ Coverage rate in each department is provided in Annex 4.

²⁵ One department is exclusively urban and therefore excluded from the PforR boundaries.

- *1.2. Rehabilitation and expansion of existing water supply systems*, including (i) the rehabilitation and/or expansion of production, pumping, treatment and storage infrastructure, distribution networks, standpipes and household connections; and (ii) development of associated studies and works supervision. It is estimated that the Program will finance the rehabilitation and/or expansion of 360 existing water supply systems. The responsibility for the operation of existing water supply systems in defined regional areas will be progressively transferred to the regional operators where there is no contract officially in place with a local private operator or at completion of those contracts. Once the responsibility of the operation has been delegated to the regional operators, they will be in charge of rehabilitating and/or expanding the production, pumping, treatment and storage infrastructure, distribution networks as part of their performance-based affermage contracts.

30. Regional operators will also be in charge of constructing the new household connections and standpipes. The Program will subsidize the construction of new household connections as water service users will pay the operators only a portion of the cost of these connections.

31. It is estimated that the Program will give access to piped water to approximately 1,660,000 rural people through the construction of 3,300 new standpipes and 34,500 new household connections.

32. All construction and rehabilitation works will be carried out using standardized design parameters and construction standards developed by the ANAEPMR in coordination with the MEM. The development of the water supply infrastructure will pay adequate consideration to the sustainable management of water resources, improved water treatment methods and optimization of energy consumption. The Program will directly support the improvement of water resource management through enhanced study and monitoring of groundwater levels and abstractions. This will be achieved through: (i) systematic hydrogeological and geophysical studies and investigations to be performed as part of the design and construction of piped water supply systems; and (ii) the systematic installation of piezometers equipped with data transmission system.

33. ***Results Area 2: Strengthen service delivery arrangements.*** Under this Result Area, the Program will strengthen service delivery arrangements of the rural water supply sector through:

- *2.1. Supporting the establishment of performance-based contracts with regional operators*, including (i) development of the FPAs between the MEM and municipalities defining the conditions and modalities of partnership between the ANAEPMR and municipalities for the planning, financing, execution and delegation of service provision of rural water supply systems to the ANAEPMR and empowering the ANAEPMR to award public service delegation contracts to regional operators. Signature of the FPAs is a pre-requisite for the signing of the performance-based affermage contracts; (ii) technical assistance for the preparation of the bidding documents and bidding process for the recruitment of regional operators that will enter into a performance-based affermage contract with the ANAEPMR for the operation of the rural water systems. It is expected that there will be six regional performance-based affermage contracts; (iii) development of a Planning Contract between the Government and the ANAEPMR defining their multi-year commitments and obligations for the achievement of the development objectives of

the rural water supply sector; (iv) development of a tariff policy that will apply to the regional operators' performance-based contracts taking into account the Operator's Remuneration and affermage fees for the ANAEPMR and for the municipalities; the Operator Remuneration defined by the performance-based affermage contract will include incentives for reducing NRW and improving bill collection; (v) development of regulatory arrangements for tariff and water service standards by the MEM; and (vi) carrying out a communication campaign targeting the Program's stakeholders to prepare and accompany the implementation of the above activities.

- *2.2. Capacity building of the rural water supply professionals*, including (i) enhancing the training facilities; and (ii) development of a specific curriculum to train local rural water supply professionals, including local affermage operators who will be co-opted by the new regional operators to expand their workforce so as to take-over the management of a rapidly growing number of water supply systems. Training activities will aim at promoting the participation of women in the provision of rural water supply services.
- *2.3. Capacity-building of the ANAEPMR, ministries in charge of water and health, and municipalities*, including (i) capacity-building of the ANAEPMR to fully discharge its functions of asset-holding company for rural water supply services, through the enhancement of its capacity in investment planning and implementation for rural water supply, including the development of adequate information systems; (ii) strengthening ANAEPMR monitoring capacities of service delivery, including for the regional operators and other providers of rural water services, as well as the publication of service monitoring reports; and (iii) capacity-building of the ministries in charge of water and health, including any of their directorates, and municipalities to enhance service delivery monitoring from the ANAEPMR and support investments in piped rural water systems. The Program will also finance the Program's Independent Verification Agent (IVA) and financial audit, and operating costs of the ANAEPMR.

34. ***The design of the Program will contribute to both climate change mitigation and adaptation.*** According to the World Bank climate screening unit, climate change is expected to impact rainfall patterns in Benin. Rainfall during January-March and April-June are expected to decrease and to increase during the periods July-September and October-December. Sea levels are projected to rise throughout the 21st century and to increase by 0.4 meter (low emissions scenario) to 0.7 meter (high emissions scenario) by year 2100. As a consequence, climate change could affect existing water systems - mainly those dependent on groundwater from bedrock formation - which could fail to deliver water in the future due to a decline in groundwater tables by over pumping, saline intrusion near the coastal areas and unsustainable use of the aquifers.

35. The design of the Program will contribute to building resilience against climate-change risks affecting its area of intervention. The following activities will contribute to climate change mitigation and adaptation:

- Systematic hydrogeological and geophysical analysis, and installation of piezometers equipped with data transmission system as part as the construction, rehabilitation and expansion works under Results Areas 1.1 and 1.2 will directly improve monitoring of groundwater levels and abstractions. Thus, the Program will create a decision support

system to study the future behavior or potential of the aquifers, to adapt groundwater use in response to different climate changing conditions.

- The installation of properly designed pumps as part of the construction, rehabilitation and expansion works under Results Areas 1.1 and 1.2 will improve the energy efficiency of the piped water supply systems and will contribute to climate change mitigation through a reduction of Greenhouse Gas (GHG) emissions per volume of water pumped. Likewise, the standardized design parameters and construction standards developed by the ANAEPMR and applied for all works will encourage a switch from diesel/fuel generator towards more efficient energy sources, including greater reliance on renewable energy sources and connections to the grid.
- A reduction in water losses will be a key objective of the regional operators' performance-based contracts developed and implemented under Results Area 2.1. Those operators will be incentivized through their remuneration formula to reduce water losses. This will reduce the amount of water to be pumped, treated and conveyed to deliver the service. This in turn will contribute to climate change adaptation, by reducing groundwater abstractions, thus putting less stress on existing water sources. The reduction of leakages under Results Area 2.1 is also yielding energy efficiency gains, thus contributing to climate change mitigation.

36. ***The Program will establish mechanisms to hold the ANAEPMR accountable, increase transparency, access to information and awareness.*** The reforms for strengthening service delivery arrangements will go hand in hand with strengthening accountability responsibilities between the ANAEPMR, the GoB, municipalities and citizens through the (i) signing of the Planning Contract defining the multi-year commitments and obligations of the GoB and of the ANAEPMR for achieving the development objectives of the rural water supply sector; and (ii) obligations to publish bi-annual service monitoring reports including the updated inventory of assets and operating data for all piped rural water supply systems. Moreover, the monitoring reports will be published by the ANAEPMR and delivered to all the municipalities having delegated their responsibilities under the Program through the FPAs.

37. ***Private sector interest in the proposed regional performance-based affermage contracts.*** The private sector has been involved in rural water supply service delivery for over 10 years in Benin. As of 2017, approximately 55 percent of the rural piped water supply systems were operated by local private operators. The new delegation model supported by the Program is based on assigning responsibilities for piped water supply systems at a regional scale and will include responsibilities both for construction and management of water systems. These larger contracts will generate a greater turnover, which in turn will allow attracting more professional service providers and generate economies of scope for key support functions (including management, supervision and training). These performance-based contracts should be more attractive both for existing local private operators (who can form consortia) and for international operators. This proposed delegation model is being tested in Senegal, where the bidding of the regional performance-based affermage contracts has attracted a lot of interest from national and international private operators, including the Senegalese national urban water supply utility. World Bank assistance in the preparation and implementation of the proposed delegation model could be

an element of comfort and transparency enhancement for interested private operators, as noted in similar reforms in West Africa supporting PPPs in the water supply sector, and could therefore foster private sector interest in the proposed contracts.

38. *The Program will support the implementation of regulation arrangements for the sector and the definition of appropriate user tariffs.* Under the proposed reforms, the operators' remuneration and service performance will be regulated through the terms of their performance-based affermage contracts, under the supervision of the ANAEPMR. As part of the Program design, reports on service monitoring will be compiled bi-annually and made available to municipalities, citizens and other Program stakeholders to strengthen accountability. User tariffs will be regulated by the MEM. Approval of the tariff policy applicable in the affermage contracts' service area is a pre-requisite to the initiation of the performance-based affermage contracts. User tariffs will be defined to cover the operators' remuneration plus a contribution to the financing of the sector's investments within the limits of the willingness- and ability-to-pay of the users.

39. *Program of expenditures.* The table below summarizes the estimated expenditures of the Program. None of the activities financed by the PEPRAU will be considered as an expenditure under the Program.

Table 3: Program of expenditures

Results Areas		Amount (US\$ million)
Results Area 1: Increase access to water supply service	<i>1.1 Construction of new water supply systems</i>	97.5
	<i>1.2 Rehabilitation and expansion of existing water supply systems</i>	97.5
Results Area 2: Strengthen service delivery arrangements	<i>2.1 Supporting the establishment of performance-based contracts with regional operators</i>	0.5
	<i>2.2 Capacity building of the rural water supply professionals</i>	5.5
	<i>2.3 Capacity-building of the ANAEPMR, ministries in charge of water and health, and municipalities</i>	25.0
Contingency		14.0
Total Program financing		240.0

40. *The Program complements other government-led investments to increase access to improved sanitation and to water supply services in rural and urban areas and builds on past World Bank engagements in the rural water sector.* Support for sanitation and hygiene services in rural areas is provided to the MoH by UNICEF, the Global Sanitation Fund program (*Programme d'Amélioration de l'Accès à l'Assainissement et des Pratiques d'Hygiène en milieu Rural - PAPHyR*), and by NGOs such as Helvetas and Protos. The MoH has allocated geographical areas of responsibility to these different funding agencies. In their respective areas, these agencies are conducting sanitation and hygiene promotion campaigns, which include Community-Led Total Sanitation (CLTS) campaigns, as well as training on household water treatment and safe water handling. In addition, the German Corporation for International Cooperation (GiZ) is funding the preparation of a National Strategy for Promotion of Hygiene and Basic Sanitation (2018-2030), building on the previous strategy which ran till 2015. Parallel funding provided by GWSP will

help explore how investments in sanitation and hygiene could be improved and how coordination between water, sanitation and hygiene (WASH) investments could be improved. This could entail setting up and managing linked-up databases to better identify “hot spots” identified based on access to WASH services and health statistics. In urban areas, the World Bank-funded PEPRAU project is providing support for the development of a National Strategy for Hygiene Promotion in Urban Areas and will increase access to sanitation in the Grand-Nokoué region, which is Benin’s largest urban area. The Bill and Melinda Gates Foundation are also active in the urban sanitation sector. The World Bank is also supporting the reform of the urban water supply sector through the PEPRAU to implement the Government’s decision to break-up SONEB into an asset-holding company and an operating company, to be managed through a Public-Private Partnership (PPP) contract. This strategic support builds on the experience and added value of the World Bank in comparable reforms implemented in Sub-Saharan Africa and complements investments in SONEB’s infrastructure supported by the German *Kreditanstalt für Wiederaufbau* (KfW), the European Investment Bank, the European Union, Chinese cooperation, the African Development Bank, the Islamic Development Bank and Japan International Cooperation Agency (JICA).

41. ***The Program will adopt citizen engagement mechanisms that enable participation of citizens in key decisions and the treatment of water users’ complaints.*** Communities in the Program’s selected rural areas will be part of the planning, design and supervision of the works in the piped water supply systems according to the Program’s social intermediation methodology involving the Water User Associations (*Association des Consommateurs d’Eau Potable – ACEPs*). ACEPs are present in all the municipalities of Benin. They are in charge of representing users’ interests through a committee at municipal level and representing bodies at locality level. The social intermediation methodology, which will be part of the contractual obligations of the engineering consultant, works contractors and private operators, will entail participation of municipalities, ACEPs and citizens throughout the consultation process during the planning, design and supervision phases of the works. Female beneficiaries will be included in the consultation process through women focus groups in order to address women’s specific concerns and to encourage their participation, as stipulated in the Program’s social intermediation methodology. The Program will also include a grievance redress mechanism embedded in the contracts for the works contractors and private operators to ensure that consumers’ complaints related to the execution of works supported by the Program or to service delivery are heard, recorded and promptly dealt with.

42. ***The Program also supports communications campaigns among municipalities, citizens and other stakeholders.*** Major public communications campaigns will be implemented under the Program at different stages of the full design and implementation of the reforms in order to engage municipalities, citizens and other Program’s stakeholders, regarding the reform agenda, its service improvement objectives, as well as implications for tariffs.

43. ***The design of the Program will contribute to address the gender gaps in terms of access to water services and employment opportunities for women.*** The Program will improve access to water supply services: this will translate into multiple impacts including improved living conditions, health, school attendance, productivity and income. In 90 percent of rural households, women and girls are responsible for fetching water: they will therefore particularly benefit from the impacts of the Program. In addition, the participation of women in the operation of rural water supply services is currently nearly existent. An assessment of the gender and social inclusion

dimensions of the Program was carried out during preparation with GWSP support. Women were consulted in gender-disaggregated groups to ensure their specific needs will be reflected in the design and implementation of the Program. The assessment explored gender gaps in two distinct areas: (i) in terms of gender-based difference in access to rural water services and (ii) in terms of women's participation and levels of empowerment in institutions participating in the governance, delivery and supervision of water services, including at central level in the MEM/DG-Eau, MoH/DNSP and ANAEPMR; and at local level, within municipalities, private sector operators, Community-based Organizations (CBOs) and ACEPs. This assessment examined existing barriers that currently limit women's access to water services and need to be specifically addressed, such as access to information, inadequate complaint-redress mechanisms or limited access to financial services.

44. The Program will monitor that the minimum percentage of women who should be part of the municipal committees of the ACEP is achieved or exceeded. Hence the Program will ensure women's involvement in the ACEPs and their participation in decision-making processes. In addition, training provided under the Program will have a particular focus on empowering women to be more involved in the delivery of water services, through an enhanced participation of women in the specific curriculum to train local rural water supply professionals developed under the Results Areas 2.2 of the Program. This will be achieved through the dissemination of information about the training opportunities targeting specifically female workers.

45. A more detailed description of the Program is provided in Annex 1.

D. Disbursement-Linked Indicators (DLIs) and Verification Protocols

46. ***Disbursement-Linked Indicators.*** The ANAEPMR and the World Bank have agreed on Disbursement-Linked Indicators (DLIs) that will trigger the World Bank disbursements under the Program. Four DLIs have been selected. The DLIs are embedded in the results chain of the Program and were selected so as to provide a clear incentive for achieving results and to support the achievement of key Program milestones. The DLIs and their associated amounts have been selected to create financial incentives to achieve critical but measurable results during the implementation of the Program under the two Results Areas. The signature of the FPAs under DLI 3 "FPAs signed between the Government's MEM and selected municipalities" is expected to be achieved prior to the signing of the credit as a prior result.

47. ***Verification Protocols of the Program.*** An IVA will be contracted to verify Program results under Terms of Reference acceptable to the World Bank. The National Institute for Statistics and Economic Analysis (*Institut National de la Statistique et de l'Analyse Economique* - INSAE) will be the Program IVA. The technical assessment found that this institute fulfils the minimum criteria for an IVA, including in terms of autonomy and adequate capacity. The INSAE will enter into a Cooperation Agreement with the ANAEPMR that will transfer an annual budget allocation to the INSAE to perform its IVA functions. The verification of the achievement of DLI 1, 2 and 3 will be done on a biannual basis, while the verification of the achievement of DLI 4 will be done upon achievement of the objectives. The World Bank will also review compliance with the DLI targets during implementation support missions, and for disbursement purposes, the World Bank will make the final decision on whether DLIs have been achieved, as per World Bank Policy and Procedure (BP 9.00).

E. Capacity Building and Institutional Strengthening

48. *The Program will contribute to building capacity and strengthen institutions at various levels.* Activities under the Results Area 2 will directly contribute to institutionally strengthen the rural water supply sector and to build the capacity of the local private sector. First, the Program will build capacity of the newly created ANAEPMR by improving planning, asset management, and monitoring of the regional operators, so it can carry out its function of asset-holding company for rural water supply. Secondly the Program will strengthen training facilities and develop a specific curriculum to train local rural water supply professionals and in turn to build a trained workforce to respond to the human resources needs generated by the professionalization of water supply service management in rural areas. Municipalities, DG-Eau and DNSP's deconcentrated services will also be strengthened as part of the Program.

49. In addition, through the selection of the INSAE, an autonomous state-owned institute currently placed under the authority of the Ministry of Plan and Development, the Program will yield significant development benefits, by building capacity within a public agency whilst the Government is looking to move rapidly towards a more results-based approach for the management of external aid flows.

III. PROGRAM IMPLEMENTATION

A. Institutional and Implementation Arrangements

50. *Institutional Implementation Arrangements of the Program.* The ANAEPMR will be in charge of implementing the Program, including the execution of all Program activities, the management of the environmental and social effects, monitoring & evaluation (M&E), handling result-based disbursements requests and consolidation of the Program financial reports. To perform its functions, the ANAEPMR will count on its internal structure and on a substantial deployment of technical assistance. Technical assistance provided to the ANAEPMR will be financed by different sources including the Program, Development Partners and by the PEPRAU.²⁶ The GoB will also organize the delegation of the provision of water supply services in rural areas from municipalities to the ANAEPMR through the signing of the FPAs. The ANAEPMR will prepare and let contractual arrangements signed with regional private operators.

51. *Operational Manuals of the ANAEPMR.* The procedures for the implementation of the Program will follow the ANAEPMR's own procedures to the largest possible extent, as defined in its Operational Manuals. However, procedures and elements specific to the Program design such as the disbursement arrangements, Result Framework, DLI matrices, verification protocol, Program Action Plan (PAP) will be included as annexes to the ANAEPMR's Operational Manuals.

²⁶ PEPRAU's activities will not be considered as an expenditure under the Program.

B. Results Monitoring and Evaluation (M&E)

52. ***Monitoring and Evaluation arrangements.*** The ANAEPMR will be in charge of M&E for all Result Areas of the Program. The ANAEPMR has a dedicated internal department for the M&E. For each indicator of its Result Framework, the ANAEPMR has defined a realistic methodology for data collection. The nature of the financial instrument used for the Program, under which disbursements require the proper reporting of the results achieved, is also expected to enhance the mechanism for M&E of the Program results. M&E of the Program will also greatly benefit from the universal roll-out of a web-based and geo-referenced management tool and monitoring platform to cover all the existing and new piped water supply systems supported by the Program. The ANAEPMR will be responsible for submitting the results reports, after verification by the IVA, in order to request disbursements.

53. ***M&E of the Program impacts on service quality and sustainability.*** The professionalization of the service delivery in rural areas through regional performance-based affermage contracts aims at improving the quality and sustainability of the expanded access to rural water supply services. Incentives to strengthen service quality and the financial performance of service delivery will be embodied in the remuneration of the private operators. However, the Program does not include indicators derived from the performance-based affermage as part of the Program results framework due to the following reasons: (i) the identification of indicators for service quality and sustainability, and the definition of targets will require developing a good understanding of the current baseline and the potential for improvement which will only be possible once technical due diligence supported by the Program activities have been carried out; and (ii) service improvements will only materialize towards the end of Program implementation, once private operators are in place and have had the time necessary to deliver improvements. Based on such considerations, the main focus of the Program results framework is on putting in place reforms that will lay the foundations for the improvement of service quality and sustainability, rather than specific levels of performance improvement within the Program period.

C. Disbursement Arrangements

54. ***Summary of disbursement arrangements.*** A Designated Account (DA) in XOF will be opened at the Central Bank (BCEAO) to receive the amounts of the initial advance up to 20 percent of the PforR amount as well as the amounts corresponding to the DLIs achieved. The DA will be managed by the *Caisse Autonome d'Amortissement* (Autonomous Amortization Fund - CAA) of the Ministry of Finances in charge of the mobilization of donors' funds and management of debt in Benin. The CAA will transfer the entire amount of the DA into a Treasure Saving Service Account for Investment (TSSAI) opened at the GoB's Treasury and managed by the ANAEPMR. The TSSAI will ensure that request for payment from the Program contractors and providers will not suffer from cash rationing and shortage. The TSSAI will also receive transfers from the GoB through its budget execution procedure that will contribute to the Program financing. In addition, the ANAEPMR will open a transactions account in a commercial bank to receive the government contribution to support the operating costs of the Agency. The Finance and Administrator Director (FAD) of the ANAEPMR will be appointed by the Minister of Finance as Public Accountant (*Agent Comptable Public*) assigned to the Program to manage the TSSAI and the transactions account. The funds transferred to the TSSAI and the transactions account, will be spent following

the ANAEPMR financial and accounting procedure manual. All payments will be signed by the Managing Director and the FAD of ANAEPMR.

55. A more detailed description of the disbursement arrangements is presented in the Annex 5 and in the Integrated Fiduciary Systems Assessment (IFSA).

IV. ASSESSMENT SUMMARY

A. Technical

56. As part of the Program preparation, a TA of the Program was carried out. The TA concluded that the Program is strategically relevant and technically sound. A number of weaknesses have been identified which could be addressed through the adoption of key measures included in the PAP. The Annex 4 provides a more detailed summary of the Program TA.

57. **Strategic relevance.** The Program has a particularly high strategic relevance for the GoB. It will contribute to fund a substantial portion of the GoB's national program to deliver universal access to water services in rural areas, which is a key development objective for the country. It will support the establishment of institutional, contractual and financial arrangements that will enable the GoB to achieve its strategic priorities to provide universal access to water services in rural areas, strengthen sector governance and professionalize rural water services. The Program will significantly contribute to delivering one of the 45 flagship projects identified in the PAG, which aims to deliver universal access to water services by 2021. It will support the implementation of the National Strategy for Rural Water Supply 2017-2030 adopted in May 2017 and the associated National Master Plan for the Development of the Rural Water Supply Sector (PPDAEPMR). The Program will contribute to funding improved access to 1.6 million people, or close to 30 percent of the overall national target to reach universal coverage by 2021. The prioritization of the Program interventions will seek to redress substantial disparities in rural water service coverage across the country. It will support the core intervention included in the PPDAEPMR, which consists of extending existing and constructing new piped waters supply systems in rural areas and to provide greater access through household connections, in line with the Sustainable Development Goals.

58. The Program's focus on the rural sector will benefit a substantial portion of Benin's population (estimated at 70 percent of Benin's population by 2021), which also tends to be the poorest with limited economic development opportunities. Important disparities between urban and rural poverty persist and have tended to increase, with poverty rates estimated at 35.8 percent and 43.6 percent respectively.

59. **Technical soundness.** The Program is technically sound. It will allow addressing a number of identified weaknesses in the rural water sector in Benin, through an emphasis on greater service standardization, increasing the scale of service delivery and strengthening of service quality monitoring. This in turn will provide a basis for greater professionalization of service delivery and generate economies of scope and some economies of scale, when piped water supply systems serve multiple localities. The design of the proposed Program builds on on-going projects in the rural water supply sector and on Benin's experience in private sector participation for service delivery

and lessons learned from similar reforms in Sub-Saharan Africa. The TA formulated recommendations to address issues related to ensuring availability and quality of water resources used for drinking water supply.

60. The Program approach to deliver access through a mix of standpipes and household connections is in line with an ongoing shift in rural customers' preferences towards household connections, whilst recognizing the fact that standpipe supplies provide a good first step and will be needed for some time, particularly in the poorest areas. The Program will provide an opportunity to roll-out standard norms for the development and operation of piped rural water systems, which in turn should generate economies of scale in procurement and efficiency gains. One area that will need particular attention is that of water treatment, as existing approaches to water treatment are unsatisfactory, both in terms of types of equipment and ongoing monitoring. Finally, a key area of weakness in the Program's technical design is linked to insufficient coordination between rural water supply investments and investments in related interventions in hygiene promotion, sanitation, nutrition so as to maximize health impacts. The TA recommended that coordination be increased, at least through information sharing, so as to identify potential "hot spots" and take account of these aspects when prioritizing rural water supply investments.

61. ***Institutional arrangements.*** The Program's institutional arrangements are sound and well-aligned with GoB's ongoing reforms of the rural water sector. However, these institutional arrangements are untested in Benin, and could therefore generate substantial risks if the reform process is not adequately managed. The implementing agency, ANAEPMR, benefits from high-level support from the GoB and has the financial resources to mobilize the technical assistance required to prepare the technical, financial, environmental and social studies underpinning the design of the proposed Program. Having a main counterpart for Program implementation will provide clarity of focus and leadership for implementation of the Program, as it is clearly aligned with the core mandate of the Agency. Nevertheless, the ANAEPMR is an agency recently created without execution records whilst mandated to implement a Program of an unprecedented magnitude in Benin. As ANAEPMR is expected to be efficient (with a target number of staff totaling 24), it will need to use technical assistance strategically and manage it well. It will be able to benefit from considerable experience in the sub-region with the creation and operationalization of similar asset-holding agencies, in which the World Bank was substantially involved and will be able to facilitate experience transfers. The creation of the Agency effectively amounts to the recentralization of many functions that had previously been decentralized to municipalities or that had been attributed to the MEM, including for monitoring water services. The signing of the FPAs between the GoB and municipalities will be supported at the highest political level, to ensure that municipalities are fully in agreement with its institutional arrangements.

62. A key factor of success for strengthening service delivery will be ensuring close coordination with the deconcentrated services of both the MEM (DG-Eau) and the MoH (DNSP). Both these Ministries have staff on the ground that have been in charge of monitoring various aspects of water service quality. Service monitoring is weak at present, with limited information on service quality available at central level, despite having an advanced web-based monitoring platform in place. The TA recommended that the institutional arrangements be clarified and formalized through a number of legal and contractual documents, including a multi-year Planning Contract between the GoB and the ANAEPMR.

63. In addition, the proposed regional performance-based contracts with private operators are service delivery models involving private sector participation of a scale which has not yet been implemented in Benin. Signing contracts at a regional scale has been identified as a necessary condition for achieving targeted results in a relatively short period of time, for mobilizing professional operators and for tackling identified weaknesses at the level of municipalities for preparing, tendering and supervising private operator contracts. Technical assistance will be provided to define adequate service areas and design the contracts. Professionalizing services will also require developing adequate human resource capacities on the ground, which is an area that was built into the design of the Program following an in-depth assessment.

64. ***Program expenditure framework.*** The Program will be mostly financed by the World Bank credit and grant. The DLIs have been designed in such a way so as to eliminate cashflow constraints for the ANAEPMR. The results framework and associated DLIs have been designed to maintain incentives for efficient delivery throughout the length of the Program. The overall cost of the supported Program including the portion financed by the World Bank are included in the multi-year expenditure programming documents as well as the program for priority investment (PIP). Investments in piped rural water supply systems will mostly be funded with public funds, as these are deemed to be basic social infrastructure. Underlying unit costs were assessed to be in line with comparable regional benchmarks. The Program seeks to design operators' performance-based contracts in a way that mobilize some private sector investments, in the form of direct investments in network rehabilitation and extensions as part of performance-based affermage contract obligations.

65. ***Economic analysis.*** The Program will benefit approximately 1.6 million people who will receive improved services in a number of ways. They will have to spend less time fetching water and will benefit from higher drinking water quality. They will be able to access greater water volumes, in line with minimum standards for hygienic practices and will suffer from less service interruptions due to technical breakdowns. Particular attention will be paid to ensuring that women and girls can benefit from improved access, so that they can in turn benefit from greater economic opportunities (including from being involved in water service delivery) and educational opportunities. In addition, the Program will generate local jobs in the area of water supply delivery and will reduce pressure on the use of local groundwater resources (through stronger monitoring and management of these resources) and of energy sources (through an emphasis on connecting piped rural water supply systems to the grid or relying on solar energy).

66. An economic analysis was conducted to compare costs and benefits with and without the Program. Costs and benefit streams were projected over 30 years and discounted at a social discount rate of 8 percent. Benefit streams were estimated for four groups of beneficiaries to take account of the different ways in which they will benefit from the Program. Costs included all Program costs as well as operating and maintenance costs and households' contributions to connection costs. The construction of new piped rural water supply systems will benefit approximately 827,000 people who had no prior access to improved water supplies and will either get water through standpipes or household connections. This will result in greater time gains and illness reduction. Rehabilitated systems will generate reductions in operating costs as well as time gains, health benefits and an increase in consumer surplus for populations that switch from

standpipe supplies (charged at an average price of CFAF 800 per m³) to household connections (for which water is charged at an average price of CFAF 500 per m³). The analysis yielded a benefit-cost ratio of 5.44, which is in line with international estimates of similar investments in areas with limited access to water supply. The net present value of costs and benefits is US\$1.8 billion, which is equivalent to an annual net benefit per person of US\$38. Overall, the Internal Rate of Return (IRR) for the investment was estimated at 144 percent. A sensitivity analysis was conducted on a number of parameters, including the social discount rate, the value of time and the impact of the investments on diarrheal illness reduction, and operating costs. The Net Present Value (NPV) remained highly positive under all these scenarios, which implies that the Program will generate high positive returns for the economy.

67. **World Bank value-added support.** The World Bank assistance to develop and support this Program will facilitate the sharing of lessons learned from successful rural water projects globally, while also building capacity for results-based planning and financing in the national Program. In particular, World Bank support provides incentives for balanced, efficient investment in water supply, as well as improved governance and financial processes.

B. Fiduciary

68. **Integrated Fiduciary Systems Assessment (IFSA).** The IFSA concluded that the Program's Integrated Fiduciary Systems have the capabilities to provide reasonable assurance that the financing proceeds will be used for intended purposes with the objective of supporting the achievement of the Program objectives.

69. The IFSA covered mainly, the newly created ANAEPMR²⁷, which is the Program implementing agency. The ANAEPMR is under the supervision of the Presidency. All the Program activities and payments will be executed by ANAEPMR. The Agency is implementing a World Bank-financed project (P156738) since July 2017. The assessment focused on the quality of the legislative and institutional framework for Public Financial Management (PFM), procurement and Governance and Anti-Corruption (GAC) applicable to the Program, as well as the fiduciary capacity of the ANAEPMR in terms of planning and budgeting, budget execution, internal controls and external auditing. The design of the fiduciary arrangements of the Program considered also two Circulars²⁸ (ad hoc arrangements) applicable to government agencies. The Program will be implemented using the procedures described in the administrative, Financial Management (FM) and procurement manual of the ANAEPMR. The budget of the Program allocated to ANAEPMR every year, will be made available to the Agency through the budgetary mechanism of "capital transfer". The ANAEPMR will use its own procedures described in its manuals to execute the budget, proceed payments to contractors and consultants, report on the execution of the budget and to comply with the auditing requirements.

70. Overall, the legislative and institutional framework for PFM in Benin is globally considered acceptable. There is also an adequate legal, regulatory and institutional framework in

²⁷ Decree No 2017-039 of January 25, 2017.

²⁸ Annex 2 of the Letter no 11-c/MEF/DC/SGM/DGB/DPSELF/SPSB of January 5, 2018 and no 950/MEF/DC/SGM/DGB/DPSELF of March 26, 2018.

place in Benin on fraud and anti-corruption. The framework is in line with or approximates international standards. In addition, Benin has transposed the West Africa Economic and Monetary Union (WAEMU) directives, regulations, and rules on public finances into national law and has adopted in October 2017, a new procurement law²⁹. The operationalization of the WAEMU directives such as the budget program and the new procurement code is on-going with some delays observed. A reform of the institutions of internal controls to conform with international best practice and improve their performance is being implemented under the responsibility of *Bureau des Analyses et Investigations* (Presidency's Office for Analysis and Investigations - BAI).

71. The assessment found a number of weaknesses and risks in the overall fiduciary systems and GAC of the Program, warranting the design of action plans to mitigate them. The key integrated fiduciary risks are the following:

- Rules and the institutional framework for internal controls are in place at the national level and deemed adequate but the overall performance of institutions of internal control faces significant challenges: some rules of ex ante control of expenditure are redundant or excessive. The internal audit process is largely focused on pre-payment audits. The internal control bodies do not have sufficient human and financial resources, and their capacities requires strengthening. The Chamber of accounts of the Supreme Court is poorly equipped (limited number of staff; human resources capacity challenges and limited financial resources) to handle its audit review (accounts) function as required by International Organization of Supreme Audit Institutions (INTOSAI). All these weaknesses could create a fertile ground for fraud and corruption in budget execution, hence undermining the economy, efficiency, and effectiveness of spending of the Program.
- Current legislative and institutional arrangements for procurement at country and Program levels, make the implementation of Program activities difficult: the new procurement code promulgated by the Government on October 19, 2017 is not fully operationalized due to delays in the drafting and approval of the texts (decrees and arrêtés) needed to support its implementation, as well as the development of standards bidding documents. Furthermore, the ANAEMPR does not have a procurement control unit as required by law and the person in charge of approving contracts is not yet appointed.
- Structural problems with cash flow management at the national level combined with long delays in procurement and redundancy in tasks performed by the actors in expenditure procedures, cause long delays in processing transactions. The 2014 Public Expenditure and Financial Accountability (PEFA) report³⁰ revealed that “Predictability in the availability of funds for commitment of expenditures” is weak with a score of D+. Furthermore, the credibility of the budget in terms of aggregate expenditure out-turn compared to original approved budget is a concern in Benin. According to the 2014 PEFA report, over the past three years, the actual expenditure has recorded a difference corresponding to an amount equivalent to more than 15 percent of budgeted expenditure (29.4 percent in 2011, 21.8 percent in 2012 and 17.7 percent in 2013). Specifically, in the water sector, the budgets allocated to rural levels were executed at 10 percent in 2015; 8.3 percent in 2016 and 39.8 percent in 2017.

²⁹ Law No 2017- 04 promulgated by the Government on October 19, 2017.

³⁰ <https://pefa.org/sites/default/files/BI-Nov14-PFMPR-Public.pdf>

- Weaknesses in compliance with the established legal and institutional framework for combating fraud and corruption at the national level and specifically in the water and sanitation sector, which could undermine the ability of the authorities to detect and address the occurrence of fraud and corruption risk in a timely and effective manner and impact the achievement of the Program objective. The 2017 Transparency International Corruption Perception Index ranked Benin 85th in the world, a deterioration from 80th in 2014.

72. **Program Action Plan.** The overall Program integrated fiduciary risk is rated high. The above weaknesses and risks will be mitigated progressively through the implementation of the PAP including (i) the adoption and promulgation of the decrees required for the implementation of the new procurement code and standard bidding documents; (ii) the creation of a procurement control unit and appointment of the person responsible for approving contracts at ANAEPMR; and (iii) bi-annual joint technical, procurement and financial internal audit and inspection missions of the Program to ensure efficient use of the Program funds. Hands on support as well as capacity strengthening of the Agency and consideration of financing opportunities available to include the institutions of controls mainly the Inspectorate General of the Ministry (*Inspection Générale du Ministère- IGM*) of the MEM, are also planned during the entire implementation period of the Program.

73. Based on the expenditure program, no contracts in excess of the PforR policy exclusion limits have been identified.

74. A detailed report on Procurement and FM arrangements as well as governance and anti-corruption is presented in Annex 5 of the PAD.

C. Environmental and Social Effects

75. **Environmental and Social Systems Assessment (ESSA).** An ESSA of the Program has been conducted by the World Bank in close collaboration with counterparts to identify potential environmental and social impacts under the Program. The draft ESSA was disclosed to the public on April 22, 2018. In accordance with the requirements of World Bank's policy, the ESSA assessed the national systems with respect to institutional capacity and performance, policy and regulatory bases, consultation mechanisms and Grievance Management to mitigate the impacts. The portfolio of the Program's activities to be undertaken was also analyzed to identify expected environmental and social effects. The ESSA was based on a review of the legal, regulatory and institutional framework related to environmental and social matters, broad consultation of the Program stakeholders, and information collected during on-site visits. The assessment also drew on experience from implementation of safeguard instruments under other previous World Bank projects in Benin. The Annex 6 provides a more detailed summary of the Program ESSA.

76. **Environmental and social risks.** In terms of environmental and social risk management, the proposed Program is considered adequate for PforR financing. The Program will have limited environmental and social impacts. The Program is not financing any investment posing a potentially significant environmental and social risk and various negative, varied, irreversible and unprecedented negative impacts (e.g., Category A type projects).

77. ***Environmental and social impacts.*** The Program activities are expected to have an overall positive effect that should be maintained over the long term, including: access to drinking water, less hardship in fetching drinking water supply and time savings for women, reduced waterborne diseases, improvement of living conditions, and job creation. Adverse social impacts are anticipated to be moderate. Investments may include some forms, more or less temporary, of involuntary resettlement of residential or business households, acquisition of private lands or restrictions on access to local social and economic infrastructure. However, their negative social impacts will be time-limited and spatially restricted (due to the relatively low land requirements of the various investments planned under the program). Adverse environmental impacts, which are expected to be typical construction impacts that are site-specific and generally limited to air or water pollution, production and management of waste, use and disposal of hazardous materials, etc., will be minimal and easily mitigated. Other non-construction works could have some adverse environmental impacts or risks (on water uptake, water contamination, etc.), but adequate measures (including modeling studies) will be taken during the preparation and implementation phases.

78. ***Environmental and social systems.*** The Beninese system for environmental management systems is relatively comprehensive and is in many ways consistent with the core principles of World Bank's PforR policy. Benin's legal framework and related action plans are conducive to environmental protection. Environmental management tools are aimed to address environmental aspects connected to development activities and investments. The ESSA analyzed the strengths, gaps, risks and opportunities of these systems against the core principles and key planning elements intended to ensure that PforR operations are designed and implemented in a manner that maximizes potential environmental and social benefits, while avoiding, minimizing, or otherwise mitigating significant adverse environmental or social impacts that are diverse or unprecedented.

79. ***Gaps between national systems and World Bank requirements.*** The ESSA found some gaps with Program requirements. For example, national and local institutions in charge of social and environmental assessments do not have enough human resources and adequate financial means to enforce the laws. Awareness of the problems of environmental management at the level of all actors is low. Environmental and social management rules and procedures may not be implemented properly and current environmental regulations may not be enforced in a timely manner. Furthermore, although Benin's legal / regulatory system includes safety provisions on construction sites and national policies and guidelines concerning the safety and health of the public and workers, the national Environmental Impact Assessment (EIA) system does not include all aspects of public safety and workers. There is a general lack of awareness of public health and safety issues, particularly with respect to exposure to hazardous materials. In terms of involuntary reinstatement, although compensations of the affected persons are fixed on the basis of the consistency and value of the goods and take into account the surplus value or the depreciation of the planned execution of the non-expropriated part, customary land ownership must be confirmed before being compensated, informal land titles are not recognized by national legislation and there are no specific formal resettlement assistance measures for vulnerable people. Finally, strong and timely public consultations and attention to grievance redress mechanisms that are easily accessible to communities are some additional areas of improvement. The PAP has been designed to address those weaknesses.

80. **Technical Manual.** The ESSA described the process aimed at screening individual sub-projects in order to identify the nature and the scope of their social and environmental impacts, define the appropriate safeguard instruments, and monitor the implementation of adequate corrective and mitigating measures. All these elements should be detailed in an Environmental and Social Management Guidelines (*Guide Référentiel pour la Gestion Environnementale et Sociale - GRGES*), aimed at supporting ANAEPMR to establish clear procedures to guide the assessment, management, and monitoring of environmental and social impacts of sub-projects. Moreover, at local level, ANAEPMR will set up a grievance management system, with the participation of representatives of civil society organizations and the private sector and other stakeholders.

81. **Consultation on the ESSA.** Consultation has been completed during the preparation of the ESSA. This consultation highlighted: (a) the fact that land law regulations are new and support will be needed in implementation; (b) the need to adapt communication materials to local languages and beliefs and support implementation over a longer time period; and (c) the challenges for sustainability of water supply schemes. These issues are being addressed through the design of the Program.

82. **Grievance Redress:** Communities and individuals who believe that they are adversely affected as a result of a Bank supported PforR operation, as defined by the applicable policy and procedures, may submit complaints to the existing Program grievance redress mechanism or the World Bank’s Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. Affected communities and individuals may submit their complaint to the WB’s independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank’s corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

D. Risk Assessment

83. **Risk Assessment.** The risk assessment is informed by the results of the Technical, Fiduciary and Environmental and Social systems assessments. In view of the substantial level of risk with respect to institutional capacity for implementation and sustainability, as well as the high fiduciary risk, the overall risk rating of the operation is high as detailed below:

Risk	Rating
Political and Governance	Substantial
Macroeconomic	Moderate
Sector Strategies and Policies	High
Technical Design of Program	Moderate
Institutional Capacity for Implementation and Sustainability	High
Fiduciary	High
Environmental and Social	Moderate
Stakeholders	Moderate
Overall Risk	High

Overall Risk Rating Explanation

84. *Main risks identified.* The main risks rated substantial or high relate to political and governance, sector strategies, the institutional capacity for implementation and to the fiduciary risk. The Program is the first PforR in Benin, which may require adjustments at the level of the executing agency staff used to implement more traditional investment projects.

85. While the ANAEPMR benefits from direct support of the Presidency and from financial resources to prepare the Program, the Program's main executing agency was only established in 2017. It does not have a track record at this stage in program execution, as the Agency has so far been focused on defining its strategy, hiring staff, establishing systems and mobilizing financing. Substantial technical assistance is planned to support the Agency, but strong supervision and management of technical assistance to support Program implementation will be essential to success. In addition, capacity in deconcentrated services of the MEM and MoH, on which the ANAEPMR will need to rely for service monitoring, is currently weak and will need to be strengthened, once their residual roles and responsibilities have been more clearly defined.

86. In terms of sector policy, the implementation model relies on the assumption that municipalities, which have so far been responsible for providing WSS services in their municipal area, will embrace the new and more centralized operating model for the sector. However, such a change in modus operandi in the sector generates a political risk and potential confusion in terms of the definition of residual responsibilities for municipalities and deconcentrated services of the MEM and MoH. The FPAs to be signed between the GoB and the municipalities will address this risk by defining clearly the conditions and modalities of partnership between the ANAEPMR and municipalities for the planning, financing, execution and delegation of service provision of rural water supply systems. The proposed regional performance-based contracts correspond to a private sector participation model that has not yet been implemented in Benin, but will build on a decade of experience of smaller affermage contracts and the existence of a pool of small-scale private sector operators.

87. Excessive emphasis on rapid infrastructure development may generate commonly encountered challenges with supply-driven programs, including a lack of community engagement resulting in inadequate siting or sizing of the investments and limited emphasis on promoting behavior change at the level of water service users, which could limit potential impact. This will be addressed through solid citizen engagement and grievance redress mechanisms embedded into the Program design.

88. In terms of the fiduciary risk, although there are adequate legal, regulatory and institutional frameworks in place in Benin on fraud and anti-corruption, this has not translated significantly into corruption reduction in the country. Control bodies do not have sufficient human and financial resources, and their capacities remain limited. In terms of procurement, the new procurement code is not yet fully operationalized. Besides, the ANAEPMR does not have a procurement control unit as required by law and the person in charge of approving contracts is not appointed yet. Structural problems with cash flow management can cause long delays in processing transactions. The internal audit function within the ANAEPMR has not yet been created and proposed modalities for transferring Program funds to the ANAEPMR prevent the intervention of a financial controller

for verifying the Agency's expenditure commitments, execution, control and payments. A detailed PAP has been designed to address these risks.

E. Program Action Plan

89. *Definition and implementation of the PAP.* The technical, fiduciary, environmental and social assessments have identified areas to improve the performance and efficiency of the Program and in turn increase the likelihood of achieving the Program results. The GoB has agreed to implement an integrated set of critical actions, through the PAP presented in detail in Annex 8, including implementation responsibility, timing and measurement of the actions. Those actions will contribute to build the capacity of the Program's institutions and/or strengthen the Program systems. The implementation of the PAP along the agreed dates and completion measures will be systematically supervised by the World Bank during the execution of the Program. The GoB will finance each action of the PAP through the Program and/or GoB's own resources.

Annex 1: Detailed Program Description

Program Development Objective (PDO)

1. The PDO is to increase access to water supply services and to strengthen service delivery arrangements in selected rural areas.

Government's program of expenditures

2. ***Providing universal access to water supply services is the GoB's priority.*** The GoB aims at financing and executing an ambitious plan to provide universal access to water supply in both urban and rural areas by 2021.³¹ To achieve this objective, the GoB aims to allocate public sector financing and leverage PPPs where possible. The GoB has demonstrated a high level of commitment to achieving this goal, with adequate planning, upstream institutional reforms, allocation of public funds and mobilization of both donor and private financing.

3. ***GoB's planned investments for universal rural water supply.*** The National Master Plan for the Development of the Rural Water Supply Sector (*Plan Directeur de Développement du sous-secteur de l'Approvisionnement en Eau Potable en Milieu Rural – PDDAEPMR*) estimates investment needed to achieve universal coverage with improved rural water services.³² According to the Plan, universal coverage will be achieved when all rural population has access to water supply services within a 30 minute-round trip to fetch water. This will be measured based on the number of standpipes and household connections in service, using the assumptions that each public standpipe serves 250 people whereas each household connection serves 24 people. The PDDAEPMR also envisages that, by 2021, half of the rural population will have access to water supply at home. Universal coverage will be achieved through the construction of new piped water systems, the rehabilitation or expansion of existing piped water systems, as well as through the construction or rehabilitation of hand pumps. The latter are mainly considered to be a transitory solution towards piped water supply, as there is strong demand in rural areas for piped water supply solutions and for household connections in particular. Investments needed for providing universal access to water supply in rural areas were estimated at FCFA 314 billion (US\$560 millions) in the PDDAEPMR and would benefit approximately 5,500,000 beneficiaries. The investment needs are split between the construction of new piped water systems, rehabilitation or expansion of existing piped water systems (76 percent) and the construction or rehabilitation of hand pumps (24 percent).

4. To ensure delivery of quality and sustainable services, the GoB also wants to implement reforms to strengthen service delivery arrangements through the ANAEPMR in charge of developing the sector's assets and delegating service delivery to private operators recruited under regional affermage contracts within an appropriate regulatory framework.

³¹ Programme d'Actions du Gouvernement : Actions 42, 43, 44 (PAG 2016-2021).

³² There are 26,426 rural localities in Benin which are included in 74 of its 77 municipalities.

5. The expenditure program is expected to be financed through GoB's own resources and Development Partners financing. Its implementation is to be executed by the ANAEPMR and started in early 2018.

Table A1.1: Planned investments to achieve in each of the departments (FCFA millions)

District	Investment needs	Percentage
Alibori	40,511	13%
Atacora	29,365	9%
Borgou	42,950	14%
Donga	20,687	7%
Collines	18,050	6%
Zou	24,104	8%
Plateau	19,877	6%
Couffo	34,238	11%
Mono	21,304	7%
Oueme	21,050	7%
Atlantique	42,574	14%
Total	314,711	100%

Program Scope

6. *The Program (Programme AQUA-VIE) will support a considerable investment program to increase access to rural water supply services and ambitious reforms to strengthen service delivery arrangements.* The proposed PforR is embedded in GoB's priorities to provide universal access to water supply services and to professionalize service delivery. The Program is built on two Result Areas.

7. Firstly, the Program will support investments in piped rural water supply systems to rapidly expand access at a level not previously experienced in Benin with the aim to achieve its ambitious targets for the sector.

8. Secondly, the Program will strengthen service delivery arrangements through comprehensive reforms of the rural water supply sector based on the following principles: (i) delegation of provision of rural water supply services to the ANAEPMR as the asset-holding company for the development of rural water supply systems, and the establishment of accountability mechanisms between the ANAEPMR, the GoB, municipalities and citizens; (ii) delegation of service delivery to private operators through performance-based regional affermage contracts with the aim to improve the quality and sustainability of the expanded water supply access; and (iii) development and approval of an appropriate tariff policy and regulation arrangements to contribute to the financial sustainability of the sector.

9. *Rationale for the proposed reforms to strengthen service delivery arrangements.* The proposed reform builds on lessons learned from the decentralization process, from a decade of experience with private sector participation in rural water supply services in the country, as well as on lessons learned from similar reforms supported by the World Bank in the region. Existing

institutional models, under which municipalities are responsible for providing of water supply services in rural areas through small-scale affermage contracts, direct municipal management or community-based organizations, have not translated into the full expected benefits in terms of expanding access, improving service and ensuring sustainability of services. This is particularly due to difficulties faced by municipalities to fulfill their financial obligations to invest in rehabilitation and expansion of water supply systems. In addition, the fact that existing private operators and other service providers operate at a small scale, combined with a general lack of technical capacity at municipal level for designing, bidding and managing incentivizing performance-based contracts have prevented the professionalization of water supply service delivery and opportunities to mobilize financing. Principles of the reforms supported by the Program have been defined to address those challenges through the recentralization of the development of rural water supply asset, strengthened service delivery monitoring and regulation, and implementation of regional performance-based affermage contracts which will include incentives to improve service quality and sustainability.

10. ***The Program will lay the foundations and the incentives for improving quality and sustainability of rural water supply services over the medium to long-term.*** The GoB has defined reform principles, which the Program will support. The full design and implementation of the reforms are part of the Development Objective of the Program and will be achieved as part of the execution of the operation. These reforms, designed to address the rural water supply sector's challenges, will lay the institutional foundations for the long-term improvement of the quality and sustainability of the rural water supply services expanded under the Program. The Program will also build incentives for service delivery and service monitoring. This will be achieved through the performance-based remuneration embedded into the regional affermage contracts that will create direct incentives for service delivery improvement and through PforR disbursements being linked to enhanced service monitoring by the ANAEPMR.

11. ***PforR Program boundaries.*** The Program will finance a portion of the GoB's planned program of expenditures in universal rural water supply over the period 2018-2024. More specifically, the Program will support the construction, rehabilitation and expansion of piped rural water supply systems in selected localities with lower access to rural water supply services³³ of the municipalities having signed the FPAs. Thus, the Program will correct existing disparities in access as identified in the PDDAEPMR and in line with Government's priorities. In addition, the Program will strengthen institutional capacities of the ANAEPMR as the rural water sector's asset holding company and enable the implementation of professionalized service delivery models through regional performance-based affermage contracts in the 74 municipalities where rural water services are provided.³⁴

12. ***PforR Program financing.*** The Program has an estimated total financing of US\$240 million, including US\$220 from the World Bank and US\$20 million from the Government's own resources.

³³ Coverage rate in each department is provided in Annex 4.

³⁴ One department is exclusively urban and therefore excluded from the PforR boundaries.

Table A1.2: Program financing (US\$ million)

Source	Amount
Borrower	20
IDA	50
IDA Scale-Up Facility	170
Total Program financing	240

13. The Program activities are organized in two Results Areas. The Program is not including any high-value contracts.

- Results Area 1: Increase access to water supply services
- Results Area 2: Strengthen service delivery arrangements

Description of Results Area 1: Increase access to water supply services

14. *Construction, rehabilitation, expansion of piped water supply systems.* The Program will finance (i) the construction, rehabilitation and/or expansion of production, pumping, treatment and storage infrastructure, distribution networks, standpipes, household connections; and (ii) development of associated studies and works supervision. The new or existing piped water supply systems supported by the Program will be supplied by surface water catchments, boreholes or through bulk supplies from SONEB.

15. *Standardized design parameters and construction standards.* All construction, rehabilitation and expansion works will be carried out using standardized design parameters and construction standards developed by the ANAEPMR. The development of the water supply infrastructure will pay adequate consideration to the sustainable management of water sources, water treatment improvement and energy consumption optimization.

16. *Responsibilities for planning, designing, supervising, constructing and operating the new and existing piped water supply systems.* The ANAEPMR has contracted a Technical Assistant. It will support the ANAEPMR for the execution of the Program through the following responsibilities: (i) definition of standardized design parameters and construction standards; and (ii) grouping the new and existing piped rural water supply systems for defining works packages and preparing the corresponding preliminary designs. In addition, the ANAEPMR will contract an Engineering Consultant in charge of carrying out the detailed design and supervising the works package on behalf of the ANAEPMR in coordination with municipalities and ACEPs. In the case of new piped water supply systems, the construction of production, pumping, treatment and storage infrastructure, distribution networks and standpipes will be executed by works contractors. The operation of those newly constructed systems will be transferred to the regional private operators. In the case of existing piped water supply systems, their operation will be delegated to the regional private operators where there

is currently no contract officially in place with a local private operator or at completion of those contracts. Once the operation of the existing systems has been transferred to the regional operators, they will execute the rehabilitation and/or expansion works of the production, pumping, treatment and storage infrastructure, distribution networks, standpipes as part of their affermage contracts that will include the list of quantities of the works to be undertaken in addition to their operational obligations. All household connections and related network extensions in the new and existing piped systems will be executed by the regional private operators. The Program will subsidize the construction of the new household connections as the water service users will pay the operators a portion only of the actual cost of the household connections. The rest of the cost of the household connections will be borne by the Program as they will correspond to an item of the list of quantities of the works to be executed by the regional operators.

17. The table hereafter presents a summary of the responsibilities for the planning, design, supervision, construction and operation of the new and existing rural piped water supply systems.

Table A1.3: Institutional responsibilities for planning, designing, supervising, constructing and operating the new and existing piped water supply systems

	Definition standardized design parameters and construction standards	Grouping of water supply systems for defining works packages and preliminary designs	Detailed Design / supervision of works	Construction	Operation
Construction of new piped water supply systems	Technical Assistant	Technical Assistant	Engineering Consultant	Works contractors (except new household connections that will be executed by the regional private operators)	Regional private operators once the construction is completed
Rehabilitation and/or of existing piped water supply systems				Regional private operators	Regional private operators where there is no contract officially in place with a local private operator or at completion of those contracts

18. **Water resources management.** The Program will directly support the improvement of decision support for water resources management through enhanced study and monitoring of the groundwater levels and abstractions. This will be achieved through systematic hydrogeological and geophysical studies and investigations, detailing the impacts of the drilling operation on the water resource, the aquatic environment, the flow, the depth and the quality of the water, to be performed as part of the design and construction of the piped water

supply systems and through the systematic installation of piezometers equipped with data transmission system.

19. ***Expected results and beneficiaries.*** It is expected that the Program will finance the construction of 270 new water supply systems and the rehabilitation and/or expansion of 360 existing water supply systems. This will include the construction of approximately 34,500 household connections and 3,300 standpipes providing access to a total of 1,660,000 on the basis of a household connection providing access to 24 people and a standpipe providing access to 250 people.

Description of Results Area 2: Strengthen service delivery arrangements

20. ***Supporting performance-based contracts with regional operators.*** The Program will support the recruitment of regional operators that will enter into an affermage performance-based contract with the ANAEPMR and with the municipalities where they will operate new or existing piped rural water systems. The operation of the new piped rural water supply systems will be delegated to the regional operators while the operation of the existing piped rural water supply systems will be delegated where there is no contract officially in place with a local private operator or at completion of those contracts. The ANAEPMR has contracted Task Force of PPP specialists to define the boundaries of the affermage contracts, draft the bidding documents of and support the bidding process of those regional performance-based contracts. It is expected that there will be six regional affermage contracts.

21. Under the performance-based affermage contracts the regional operators will be responsible for:

- Operating the production, treatment, distribution infrastructure of the rural water supply systems whose service delivery has been delegated to them. Remuneration of the regional operators is defined in the affermage contracts and will be performance-based to create incentives for efficiency improvement. For example, it could be equal to the Operator Remuneration per m³ offered by the winning bidder multiplied by (i) the actual volume produced; (ii) contractual targets in terms of (1-Non Revenue Water); and (iii) contractual targets in terms of collection rate.
- Executing rehabilitation and/or expansion works of the existing piped water supply systems as well as for executing all new household connections. The list of quantities and market-based unit prices of the corresponding works will be defined by the Technical Assistant contracted by the ANAEPMR as part of the preparation of the preliminary designs.

22. The regional performance-based affermage contracts will be signed by the ANAEPMR. Prior to the signing of those contracts, FPAs between the Government and the municipalities will be signed. The FPAs will set the terms and conditions of the partnership between the Government and the municipalities for the planning, funding, implementation and sustainable delivery of water supply services in rural areas. Most specifically through this Framework Agreement, the municipalities will empower the ANAEPMR to prepare and award public service delegation contracts to regional operators.

23. In addition, the Program will support the preparation of a Planning Contract between the Government and the ANAEPMR defining their multi-year commitments and obligations for the achievement of the development objectives of the rural water supply sector.

24. The Program will also support the development of a tariff policy that will apply to the regional operators' performance-based contracts taking into account the affermage's Operator Remuneration and affermage fees for the ANAEPMR and for the municipalities. This will be accompanied by the definition and implementation of arrangements for the regulatory functions to be performed by the DG-Eau.

25. Finally, the Program will undertake a communications campaign among the Program stakeholders to prepare and accompany the activities paving the way to strengthen service delivery arrangements.

26. ***Capacity building of the rural water supply professionals.*** The Program will finance the enhancement of training facilities. The Program will also support the development of a specific curriculum to train local rural water supply professionals aiming at promoting the participation of women in the delivery of rural water supply services. Targeted professionals will include local affermage operators who will be co-opted by the new regional operators to expand its workforce in order to take-over the management of a rapidly growing number of water supply systems.

27. ***Capacity-building of the ANAEPMR and sector institutional strengthening.*** The Program will finance the capacity-building of the ANAEPMR to fully discharge its functions of asset-holding company for rural water supply. This will include the enhancement of its investment planning and implementation capacities for rural water supply, including the development of adequate information systems; and the strengthening of its monitoring capacities of the affermage regional operators and of other providers of rural water services, as well as the publication of service monitoring reports. This will also include the capacity-building of the ministries in charge of water and health, including any of their directorates and municipalities to enhance service delivery monitoring from the ANAEPMR and support investments in piped rural water systems. The Program will also finance the Program's Independent Verification Agent (IVA) and financial audit, and operating costs of the ANAEPMR.

Program costs

28. The Table below summarizes the estimated expenditures of the Program. It is based on the following costing parameters:

- Average cost to provide access: FCFA 65,000
- Average cost of a new subsidized household connection: FCFA 120,000 including FCFA 100,000 financed by the Program and FCFA 20,000 financed by the beneficiaries
- Average cost of a new standpipe: FCFA 600,000
- Average investment/new piped rural water system: FCFA 200,000,000

- Average investment/rehabilitated and/or extended piped rural water system: FCFA 150,000,000

29. The costing of the Program also includes 5 percent contingency.

Table A1.4: Program of expenditures

Results Areas		Amount (US\$ million)
Results Area 1: Increase access to water supply service	<i>1.1 Construction of new water supply systems</i>	97.5
	<i>1.2 Rehabilitation and expansion of existing water supply systems</i>	97.5
Results Area 2: Strengthen service delivery arrangements	<i>2.1 Supporting the establishment of performance-based contracts with regional operators</i>	0.5
	<i>2.2 Capacity building of the rural water supply professionals</i>	5.5
	<i>2.3 Capacity building of the ANAEPMR, ministries in charge of water and health, and municipalities</i>	25.0
Contingency		14.0
Total Program financing		240.0

Coordination with other Development Partners

30. *The Program complements other government-led investments to increase access to improved sanitation and to water supply services in rural and urban areas and builds on past World Bank engagements in the rural water sector.* Support for sanitation and hygiene services in rural areas is provided to the MoH by UNICEF, the Global Sanitation Fund PAPHyR program, the OmiDelta project funded by the Dutch Embassy as well as by NGOs such as Helvetas and Protos. The MoH has in practice allocated geographical areas of responsibility to these different funding agencies. In their respective areas, these agencies are conducting sanitation and hygiene promotion campaigns, which include CLTS campaigns, as well as training on household water treatment and safe water handling. Parallel funding provided by GWSP will help exploring how coordination between rural water sector investments and investments in sanitation and hygiene could be improved. This could entail setting up and managing linked-up databases to better identify “hot spots” identified based on access to WASH services and health statistics. In urban areas, the World Bank-funded PEPRAU project is providing support for the development of a National Strategy for Hygiene Promotion in Urban Areas and will increase access to sanitation in the Grand-Nokoué region, which is Benin’s largest urban area. The Bill and Melinda Gates Foundation are also active in the urban sanitation sector. The World Bank is also supporting the reform of the urban water supply sector through the PEPRAU to implement the Government’s decision to break-up SONEB into an asset-holding company and an operating company, to be managed through a PPP contract. This strategic support builds on the experience and added value of the World Bank in comparable reforms implemented in Sub-Saharan Africa and complement investments in SONEB’s infrastructure supported by KfW, the European Investment Bank, the European

Union, Chinese cooperation, the African Development Bank, the Islamic Development Bank and JICA.

Institutional Implementation Arrangements

31. The ANAEPMR will be in charge of implementing the Program. In that respect, the ANAEPMR will execute the Program activities, will be responsible for its environmental and social management, M&E, requesting result-based disbursements and consolidating the Program financial reports. The GoB will also organize the delegation of responsibilities for the provision of water supply services in rural areas through regional affermage contracts from municipalities to the ANAEPMR through the signing of the FPAs. The ANAEPMR will prepare and let contractual arrangements with regional private operators.

32. The institutional responsibilities in the rural water supply sector in which the Program will be implemented are summarized in the table below.

Table A1.5: Institutional responsibilities for the rural water supply sector

Functions	Institution in charge
Sector policy definition	MEM / DG-Eau
Regulation	
- Definition and application of tariff policy applicable at national level - Definition and application of technical norms applicable at national level	MEM / DG-Eau MEM / DG-Eau, in coordination with ANAEPMR
Investment planning	
- At local level	Municipalities in collaboration with MEM / DG-Eau and ACEPs
- At national level	ANAEPMR
Investment execution	
Programming	ANAEPMR
Preparation of technical, environmental, social studies and bidding documents	ANAEPMR in collaboration with municipalities / ACEPs
Social intermediation	Engineering consultant, works contractors in collaboration with municipalities / ACEPs
Works supervision	ANAEPMR in collaboration with municipalities / ACEPs
Contracting regional operators	
Drafting regional operators' contracts	ANAEPMR
Signing of regional operators' contracts	ANAEPMR
Contracting works contractors	ANAEPMR
Infrastructure construction	
Construction of new rural water supply systems	Works contractors
Rehabilitation and expansion of existing water supply systems	Regional operators
Service delivery	Regional operators
Service monitoring at national level	ANAEPMR, in coordination with MEM / DG-Eau
Monitoring of operationalization of the PGSSE	MoH / DNSP
Grievance redress mechanism	Regional operators for complaints linked to service delivery Works contractors for works-related complaints
Water resources management	MEM / DG-Eau
Independent results verification (IVA)	INSAE

Annex 2: Results Framework Matrix

Table A2.1: Results Framework

Results Areas Supported by PforR	PDO Indicators	Intermediate Results Indicators	DLI #	Unit of Measure	Baseline (2018)	End Target (2024)
Results Area 1: Increase access to water supply services	People provided with access to improved water sources		-	Number	0	1,660,000
	including female		-	Number	0	830,000
		New household connections built under the Program	1	Number	0	34,500
		New standpipes built under the Program	2	Number	0	3,300
		New piped rural water supply systems built under the Program functioning	-	Number	0	270
		Existing piped rural water supply systems in rural areas rehabilitated or expanded under the Program functioning	-	Number	0	360
Results Area 2: Strengthen service delivery arrangements	Piped rural water supply systems managed by regional operators		-	Percentage	0%	80%
	Publication by the ANAEPMR of bi-annual service monitoring reports		3(b)	Number	0	11
		FPA between the Government's MEM and municipalities for service provision and monitoring signed	3(a)	Number	0	At least 50
		Planning Contract between the Government / ANAEPMR signed	-	Yes/No	No	Yes
		Tariff policy for rural water supply services approved	-	Yes/No	No	Yes

Results Areas Supported by PforR	PDO Indicators	Intermediate Results Indicators	DLI #	Unit of Measure	Baseline (2018)	End Target (2024)
		Performance-based contracts between the ANAEMR and regional operators signed and with service orders issued	4	Number	0	6
		Piped rural water supply systems included into information system to control and monitor rural water supply assets and regional operators	-	Percentage	0%	100%
		Piped rural water supply systems providing improved water quality	-	Percentage	0%	90%
		People benefiting from training activities on rural water supply under the Program	-	Number	0	660
		including female	-	Percentage	0%	15%
		Women being members of the committees of ACEPs	-	Percentage	10%	25%
		Grievances registered related to delivery of Program benefits that are addressed	-	Percentage	0%	80%

Table A2.2: Indicators description

Indicators	Description	Frequency	Data Source	Methodology for Data Collection	Responsibility for Data Collection	DLIs	
						Responsibility for Data Verification	Scalability of Disbursement (Yes/No)
Results Area 1: Increase access to water supply service							
People provided with access to improved water sources	Sum of (i) number of new household connections built under the Program * number of people served per household connection in rural areas as set by ANAEPMR, i.e. 3 households of 8 persons or 24 persons and (ii) number of new standpipes built under the Program * number of people served per standpipe in rural areas as set by ANAEPMR, i.e. 250 people (including female).	Bi-annual	Intermediate indicators	Indicator calculated based on intermediate indicators	ANAEPMR	-	-
New household connections built under the Program	New household connections under the Program connected to a functioning ³⁵ piped rural water supply system	Bi-annual	Reports from regional operators validated by ANAEPMR	(i) Compilation and submission of implementation reports by regional operators (ii) Certification of the reports by the Engineering Consultant	ANAEPMR	AVI	Yes

³⁵ A rural water supply system is considered functioning if not out-of-service.

Indicators	Description	Frequency	Data Source	Methodology for Data Collection	Responsibility for Data Collection	DLIs	
						Responsibility for Data Verification	Scalability of Disbursement (Yes/No)
				(iii) Validation of the reports by ANAEPMR			
New standpipes built under the Program	New standpipes under the Program connected to a functioning piped rural water supply system	Bi-annual	Reports from regional operators validated by ANAEPMR	(i) Compilation and submission of implementation reports by regional operators (ii) Certification of the reports by the Engineering Consultant (iii) Validation of the reports by ANAEPMR	ANAEPMR	AVI	Yes
New piped rural water supply systems built under the Program functioning	New piped rural water supply systems built under the Program functioning	Bi-annual	Minutes of works commissioning acceptance and the geo-referenced information system	Counting of minutes of works commissioning acceptance and monitoring reports of the geo-referenced information system	ANAEPMR	-	-
Existing piped rural water supply systems in rural areas rehabilitated or expanded under the Program functioning	Existing piped rural water supply systems in rural areas rehabilitated or expanded under the Program functioning ³⁶	Bi-annual	Minutes of works commissioning acceptance and the geo-referenced information system	Counting of minutes of works commissioning acceptance and monitoring reports of the geo-	ANAEPMR	-	-

³⁶ A rural water supply system is considered functioning if not out-of-service.

Indicators	Description	Frequency	Data Source	Methodology for Data Collection	Responsibility for Data Collection	DLIs	
						Responsibility for Data Verification	Scalability of Disbursement (Yes/No)
				referenced information system			
Results Area 2: Strengthen service delivery arrangements							
Piped rural water supply systems managed by regional operators	Percentage of total number of rural piped water supply systems in the country managed by regional operators	Bi-annual	Activity reports of regional operators	Number of piped rural water supply systems in rural areas whose management is delegated to regional operators, divided by the total number of piped rural water supply systems in the country	ANAEPMR	-	-
Framework Partnership between the Government's MEM and municipalities established	(a) FPAs defining the conditions and modalities of partnership between the ANAEPMR and municipalities for the planning, financing, execution and delegation of service provision of rural water supply systems, signed by at least 50 municipalities; (b) Publication by the ANAEPMR of bi-annual service monitoring reports including the updated inventory of assets and key	(a) Once (b) Bi-annual	(a) FPAs signed (b) Service monitoring reports published	(a) FPAs signed (b) Compilation of service monitoring reports	ANAEPMR	IVA	Yes

Indicators	Description	Frequency	Data Source	Methodology for Data Collection	Responsibility for Data Collection	DLIs	
						Responsibility for Data Verification	Scalability of Disbursement (Yes/No)
	performance indicators for all piped rural water supply systems of the municipalities having signed the FPA. The reports will cover the semesters from July-December 2018 through July-December 2023.						
Planning Contract between the Government / ANAEMPR signed	Contract defining multi-year commitments and obligations of the Government and of the ANAEMPR for the achievement of the development objectives of the rural water supply sector	Developed once and renewed every 3 years	Planning Contract between the Government / ANAEMPR signed	Planning Contract signed	ANAEMPR	-	-
Tariff policy for rural water supply services approved	Approval by regulatory text of the appropriate tariff policy(s) covering at least the Operator Remuneration applicable in the perimeters of the regional operators	Developed once and renewed as needed	Tariff policy(s) actually applied	Tariff policy applied	ANAEMPR	-	-
Performance-based contracts between the ANAEMPR and regional operators signed and with	Number of contracts setting the terms and conditions for the delegation of the production and distribution of water supply in regional rural	Once per contract	Service order issued	Service order issued	ANAEMPR	IVA	Yes

Indicators	Description	Frequency	Data Source	Methodology for Data Collection	Responsibility for Data Collection	DLIs	
						Responsibility for Data Verification	Scalability of Disbursement (Yes/No)
service orders issued	perimeters, with service order issued by ANAEMPR, and applying the approved tariff policy(s)						
Piped rural water supply systems included into the information system to control and monitor rural water supply assets and services managed by regional operators	Percentage of piped rural water supply systems included into a geo-referenced information system providing the ANAEMPR with: (i) The updated inventory of assets in the perimeters of the regional operators. (ii) The key performance indicators as set in the contracts of regional operators.	Bi-annual	Geo-referenced information system	Monitoring reports of the geo-referenced information system	ANAEMPR	-	-
Piped rural water supply systems providing improved water quality	Percentage of piped water supply systems whose management has been transferred to a regional operator since at least one year and meeting the following conditions: (i) The piped water supply systems are functioning. (ii) The piped water supply systems have a PGSSE	Bi-annual	(i) Geo-referenced information system. (ii) Reports from the MoH / DNSP of the monitoring of operationalization of the PGSSE.	(i) Monitoring reports of the geo-referenced information system. (ii) Reports from the MoH / DNSP are transmitted to the ANAEMPR and consolidated.	ANAEMPR	-	-

Indicators	Description	Frequency	Data Source	Methodology for Data Collection	Responsibility for Data Collection	DLIs	
						Responsibility for Data Verification	Scalability of Disbursement (Yes/No)
	approved by the MoH/DNSP and the regional operators comply with its requirements. ³⁷						
People benefiting from training activities on rural water supply under the Program	Number of water supply professionals benefiting from training activities under the Program. Rural water supply professionals are defined as professionals involved in the management of rural water supply systems (including female).	Bi-annual	Activity reports from the training center supported by the Program	Consolidation of activity reports from the training center supported by the Program	ANAEMPR	-	-
Women being members of the committees of ACEPs	Percentage of women being members of the municipal ACEPs established for water supply services	Bi-annual	Minutes of the General Assemblies constituting the ACEPs	Consolidation of the minutes of the General Assemblies constituting the ACEPs	ANAEMPR	-	-
Grievances registered related to delivery of	Percentage of grievances from Program's beneficiaries registered and addressed by works	Bi-annual	Grievance redress reports issued by the works contractors and	Monitoring of grievance redress reports issued by the works	ANAEMPR	-	-

³⁷ The PGSSE is a document to be prepared by the regional operators as part of its contractual obligations and that includes all preventive and corrective measures needed to reduce the risks of water quality deterioration between the catchment area and the point of distribution of water to the consumer. The PGSSE shall also identify preventative measures to reduce the number of unplanned supply interruptions, as these are a frequent cause of water contamination in Benin. Producers and distributors of water are also expected to conduct regular sanitary inspections of water supply systems and to control regularly the quality of drinking water supplied to populations.

Indicators	Description	Frequency	Data Source	Methodology for Data Collection	Responsibility for Data Collection	DLIs	
						Responsibility for Data Verification	Scalability of Disbursement (Yes/No)
Program benefits that are addressed	contractors and regional operators in accordance with their contractual obligations		regional operators	contractors and regional operators			

Annex 3: Disbursement Linked Indicators, Disbursement Arrangements and Verification Protocols

Table A3.1: Disbursement-Linked Indicator Matrix

	Total Financing Allocated to DLI (in million)	As % of Total Financing Amount	DLI Baseline	Indicative timetable for DLI achievement					
				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DLI 1 The number of new household connections built under the Program	EUR 65 (US\$80)	36%	0	0	3,450	8,620	10,350	8,620	3,460
DLI 2 The number of new standpipes built under the Program	EUR 32.5 (US\$40)	18%	0	0	310	830	1,000	830	330
DLI 3 Framework Partnership between the Government's MEM and selected municipalities established under terms acceptable to the World Bank	EUR 40.5 (US\$50)	23%	No						

DLI 3(a) <i>FPAs signed between the Government's MEM and selected municipalities</i>	EUR 12.2 (US\$15)	7%	No	<i>FPAs signed by at least 50 municipalities</i>					
DLI 3(b) <i>Service monitoring reports published</i>	EUR 28.3 (US\$35)	16%	No	<i>2 bi-annual service monitoring reports published</i>	<i>2 bi-annual service monitoring reports published</i>	<i>2 bi-annual service monitoring reports published</i>	<i>2 bi-annual service monitoring reports published</i>	<i>2 bi-annual service monitoring reports published</i>	<i>1 bi-annual service monitoring reports published</i>
DLI 4 Performance-based contracts between the ANAEPMR and selected regional operators signed and a service order for each contract issued	EUR 40.5 (US\$50)	23%	0	0	3	3	N/A	N/A	N/A
Total Amount:	EUR 178.5 (US\$220)	100%	-	-	-	-	-	-	-

Table A3.2. DLI verification protocol table

#	DLI	Definition / Description of achievement	Scalability of Disbursements (Yes/No)	Protocol to evaluate achievement of the DLI and data/result verification		
				Data source	Verification entity	Procedure
1	The number of new household connections built under the Program	New household connections under the Program connected to a functioning piped rural water supply system	Yes	Intermediate indicators	IVA	The IVA verifies the number of new household connections in operation connected to piped rural water supply systems that have been built, rehabilitated or expanded under the Program and whose execution has been validated by ANAEP.
2	The number of new standpipes built under the Program	New standpipes under the Program connected to a functioning piped rural water supply system	Yes	Intermediate indicators	IVA	The IVA verifies the number of new standpipes in operation connected to piped rural water supply systems that have been built, rehabilitated or expanded under the Program and whose execution has been validated by ANAEP.
3	Framework Partnership between the Government's MEM and selected municipalities established under terms acceptable to the World Bank	(a) FPAs defining the conditions and modalities of partnership between the ANAEPMR and Government's MEM and selected municipalities, signed by at least 50 municipalities; (b) Publication by the ANAEPMR of bi-annual service monitoring reports presenting the updated inventory of assets and key performance indicators for all piped rural water supply systems of the municipalities having signed the	Yes	(a) FPAs signed (b) Service monitoring reports published	IVA	The IVA verifies that the Framework Agreements have been signed by all stakeholders and that the bi-annual service monitoring reports have been published by the ANAEPMR.

#	DLI	Definition / Description of achievement	Scalability of Disbursements (Yes/No)	Protocol to evaluate achievement of the DLI and data/result verification		
				Data source	Verification entity	Procedure
		FPA. The reports will cover the semesters from July-December 2018 through July-December 2023.				
4	Performance-based contracts between the ANAEPMR and selected regional operators signed and with service order for each contract issued	Number of contracts setting the terms and conditions for the delegation of the production and distribution of water supply in regional rural perimeters, with service order issued by ANAEPMR and applying the approved tariff policy(s)	Yes	Service order issued	IVA	The IVA verifies that the service orders relating to the Contracts have been issued.

Table A3.3 World Bank disbursement table

#	DLI	World Bank financing allocated to the DLI (in million)	Of which Financing available for Prior results	Deadline for DLI Achievement	Minimum DLI value to be achieved to trigger disbursements of World Bank Financing	Maximum DLI value expected to be achieved for World Bank disbursements purposes	Determination of Financing Amount to be disbursed against achieved and verified DLI value
1	The number of new household connections built under the Program	EUR 65 (US\$80)	-	Closing date of the Financing	0	34,500	Amount assigned to DLI / End-of-Program target for DLI = EUR 65,000,000/34,500 = EUR 1,884 per new household connection (=US\$80,000,000/34,500 = US\$2,319 per new household connection)
2	The number of new standpipes built under the Program	EUR 32.5 (US\$40)	-	Closing date of the Financing	0	3,300	Amount assigned to DLI / End-of-Program target for DLI = EUR 32,500,000/3,300 = EUR 9,848 per new standpipe (=US\$40,000,000/3,300 = US\$12,121 per new standpipe)
3	(a) FPAs signed between the Government's MEM and selected municipalities; and (b) service monitoring reports published	EUR 40.5 (US\$50)	EUR 12.2 (US\$15)	Closing date of the Financing	0	11 bi-annual service monitoring reports	(a) EUR 12,200,000/US\$15,000,000 at signature of the FPAs by at least 50 municipalities (b) EUR 2,572,727/ US\$3,181,818 at publication of each bi-annual service monitoring report
4	Performance-based contracts between the ANAEPMR and selected regional operators signed and with service order for each contract issued	EUR 40.5 (US\$50)	-	Closing date of the Financing	0	6	EUR 6,750,000/ US\$8,333,333 per Contract with service order issued

Annex 4: Summary Technical Assessment

Scope and Purpose of the Technical Assessment (TA)

1. The technical assessment for the Program (Programme AQUA-VIE) provides reasonable assurance that the GoB program has a strong strategic rationale, including the justification for public financing, is technically sound, has an appropriate expenditure framework and has suitable monitoring and evaluation (M&E) capacity. A stand-alone TA report was produced and provides further detail on the assessment findings.

Strategic Relevance

2. The Program is strategically relevant. It will contribute to funding a substantial portion of the national program to deliver universal access to water services in rural areas, which is a key development objective for the GoB.

3. The Program is perfectly aligned with the GoB's strategic priorities, overall, and with the rural water sub-sector, in particular. Following the election of Patrice Talon to the Presidency in April 2016, the Government conducted a comprehensive audit of the country and produced a Government Action Plan (*Programme d'Action du Gouvernement*, PAG, 2016-2021) under the "Revealing Benin" (*Bénin Révélé*) banner. The Government program identified 45 flagship projects to be undertaken during the 2016-2021 period to spur growth and improve the population's living conditions. Three of these flagship projects (42, 43, 44) focus on the water sector, including project 43, which is to provide universal access to water in rural and semi-urban areas, serving an estimated 2.5 million people by 2021 at a total estimated cost of US\$375 million.

4. The Program will support the implementation of the National Strategy for Rural Water Supply 2017-2030 (*Stratégie Nationale d'Approvisionnement en Eau Potable en Milieu Rural*, 2017-2030) which was adopted in May 2017. The National Master Plan for the Development of the Rural Water Supply Sector (*Plan Directeur de Développement du sous-secteur de l'Approvisionnement en Eau Potable en Milieu Rural – PDDAEPMR*) was prepared and finalized in May 2017 to operationalize this strategy. The total cost for implementing the PDDAEPMR was estimated at FCFA 314 billion (US\$560 million), out of which approximately 92 percent will be used to serve people who currently do not receive improved services, whilst the remainder will be invested in rehabilitating existing infrastructure to bring it in line with existing norms.

5. The overall objective of the National Strategy is to ensure that Benin's rural population has access to quality drinking water in an equitable and sustainable manner, and at an affordable cost. Three main principles underline this Strategy: (i) to provide universal access to basic water services to the entire rural population of Benin by 2021; (ii) to professionalize management of rural water supply services; and (iii) to support and strengthen the municipalities so that they can effectively deliver on their role to build water supply infrastructure and ensure the delivery of water supply services in their perimeter.

6. The Program will seek to target its interventions to redress substantial disparities in rural water service coverage. The PDDAEPMR estimated that rural water service coverage stands at 42

percent nationwide, with significant variations from one municipality to another. The coverage rate was estimated based on an average number of people per water point (250) and per household connection (24); it is different from the access rate estimated through surveys and used in JMP reporting. If non-functionality of water points that can be rehabilitated is taken into account, the coverage rate drops to 38 percent. The lowest coverage rates (just above 30 percent) are found in Alibori Department in the far North, as well as in Atlantique, Mono and Ouémé Departments, in the South. Municipalities with the lowest coverage rates include Aguégués in Ouémé (9 percent), Abomey in Zou (15 percent) and Comè and Grand-Popo in Mono (18.3 and 19.3 percent respectively). By contrast, some municipalities have relatively high coverage rates, such as Athiémè in Mono (64.6 percent), Sinendé in Borgou (70.6 percent) and Savé in Collines (71.1 percent). Table 3 in the TA shows current coverage rates by department.

7. The PDDAEPMR estimated that to achieve universal coverage in rural areas by 2021, water supply improvements will be needed in areas where 8.84 million rural dwellers will be residing by 2021 (70 percent of Benin's population by 2021). A significant share of service improvements of service improvements will be achieved by extending existing and constructing new piped water supply systems. These interventions will benefit 67.6 percent of the rural and 50 percent of the total population. Table 4 of the TA provides additional detail on planned investments in rural water supply by 2021.

8. The Program is well aligned with the World Bank's new Country Partnership Framework (CPF) for FY19-FY23. It will directly contribute to the CPF's Objective 2, "Improving the quality of infrastructure". A Systematic Country Diagnostic (SCD) was prepared in 2017 in preparation of the CPF, which identified constraints to inclusive and sustainable growth and defined strategic priorities. Amongst the most binding constraints to inclusive growth identified in the SCD were inadequate access to infrastructure services, gender imbalances and a lack of female empowerment, as well as sustainability issues with respect to natural resource management. The Program's focus on the rural sector will benefit a substantial portion of Benin's population, which also tends to be the poorest with limited economic development opportunities.

9. The Program is well aligned with a number of these key strategic priorities, including the emphasis on "building human capital, particularly among the poorest and among women and girls, so that they can increasingly benefit from and contribute to a growing and transforming economy". The Program will deliver basic water infrastructure to alleviate women and girls' burden of fetching water. It will improve health outcomes for the poorest segments of society. It will create both temporary jobs (related to construction works) and permanent jobs (related to the provision and supervision of water services) at the local level and will seek to specifically empower women.

10. The choice of the PforR instrument meets a clear request from the GoB to move away from a project-based approach, with financing linked to inputs, towards a programmatic financing approach, with financing based on results. The Program will enable the GoB to strengthen its institutional set-up to receive future financing based on results, enabling it to reach universal access and keep in line with its priorities. Attracting additional financing from other funders who have expressed interest in moving towards a results-based approach to financing (such as the Islamic Development Bank, the African Development Bank or the Dutch cooperation) will become easier once the robustness and effectiveness of this funding mechanism has been demonstrated.

Technical Soundness

11. The Program is technically sound. It will address many weaknesses identified in Benin's rural water sector through an emphasis on greater service standardization and increasing the scale of service delivery. This in turn will provide a basis for greater professionalization of service delivery and will generate economies of scope, and some economies of scale, since piped water supply systems will serve multiple localities. The guiding principle for use of Program funds is that investments funded by the Program will aim to redress geographical imbalances in terms of access to the service and will be used to provide services to the poorest segments of the population. The TA led to the identification of a few technical weaknesses, however, which are summarized in the paragraphs below. These areas will need to be addressed during implementation so as to increase chances of Program success.

12. **Management of water sources.** Drinking water supply will mostly come from groundwater sources, which is in line with current practices in Benin. This is deemed to be cost-effective and sustainable, provided key measures are adopted to ensure availability and adequate quality of groundwater sources. Such measures will include improving the monitoring of groundwater resources and defining and enforcing a regulatory framework for their sustainable usage. The regulatory framework for ensuring the quality of groundwater sources is in place, although in practice, its enforcement is limited by human resources and financial constraints. The Program will give the opportunity to ensure stronger enforcement of the existing framework, provided there is good coordination at the level of the different actors and adequate resources. For example, municipalities are currently in charge of defining protection perimeters around water sources, which then need to be approved by the MEM and the MoH. It will be essential to ensure that municipalities can continue to do so and are adequately resourced to ensure that such protected perimeters are effectively enforced.

13. One issue identified during the TA is that knowledge regarding available water resources and their management is currently very limited in Benin. The Directorate of Water Resources Management within DG-Eau does not have the human, technical and financial resources to carry out water resources monitoring activities in an efficient manner. The Program will foster sustainable management of groundwater resources through a number of activities that will need to be carried out, including requiring hydrogeological reports by the consultants in charge of designing the water schemes, hydrogeological and geophysical investigations to be carried out by the contractors and piezometric monitoring and modernization of the data transmission of piezometric levels in coordination with the other institutions and financing partners. These proposed interventions will be necessary and realistic in terms of promoting more sustainable management of water resources. In the long run, to ensure drinking water security, it will be necessary to invest in improving knowledge of groundwater resources and to conduct feasibility studies for the mobilization of surface water resources in areas where groundwater sources are not reliable or might be impacted by climate change, as detailed in the TA.

14. **Service levels.** The Program will focus on the construction of piped water supply systems and will not include the construction or rehabilitation of autonomous water points or handpumps. Even though these systems exist in Benin and provide a large share of the rural population with water, they are not currently the GoB's priority. The Government's strategy is to keep investments

in handpumps down to a minimum, as those solutions are mainly a transition towards piped water supply on premises. Program design placed emphasis on household connections, as this is in line with aspirations expressed by the rural population and is also in line with the National Strategy objective for 2030. Although the benefits of providing household connections are clear and there appears to be substantial demand for such connections, there is still limited evidence that such demand will effectively materialize. Few rural water systems have more than 100 household connections at present, whereas the number of household connections in the other systems varies between 2 and 75. For this reason, the Program will invest both in household water connections and standpipe connections, as the latter allow increasing access faster with a limited demand risk.

15. ***Approach to prioritizing investments.*** A total of 5.4 million people will need to receive improvements in services to achieve the target of providing universal access by 2021. The Program will contribute to funding improved access to close to 1.6 million people, which is equivalent to 30 percent of the overall national target to reach universal coverage by 2021. The guiding principle for use of Program funds is that investments funded by the Program will aim to redress geographical imbalances in terms of access to the service and will be used to provide services to the poorest segments of the population. Up to this point, prioritization of investments has mostly been done based on technical factors, combined with political factors. With respect to the provision of connection subsidies, existing practices in the context of the pilot subsidized concession contracts have not used specific targeting criteria. Going forward, the ANAEPMR will need to define a well-articulated approach to prioritizing investments and allocating connection subsidies. The ANAEPMR will invest Program funds in departments and communes with the lowest coverage rates to redress existing inequities in access. Such investments will be carried out throughout the country, and will be programmed on an ongoing basis, based on many considerations, including the need to spread investments throughout the national territory. At present, there is no structured way for Government institutions (either at national or local government level) to share and jointly track sanitation indicators (open defecation prevalence, improved sanitation coverage rate), health indicators (diarrheal diseases, prevalence of stunting) or socio-economic indicators, including poverty rates. This type of information would be very helpful for the ANAEPMR to identify potential “hot spots” in terms of disease incidence, poverty and access to basic services and provide a basis for prioritizing investments. So far, no comprehensive analysis to explain differences in water coverage rates has been undertaken, nor has any evaluation of the local impacts of inadequate access been carried out. When entering the construction phase and preparing detailed engineering designs, additional information on local context will need to be obtained so as to apply clear prioritization criteria and maximize impact. When defining an approach to prioritization, including to define which schemes should be prioritized and who should benefit from subsidized connections, the need to redress access imbalances will need to be balanced against costs and efficiency in implementation.

16. ***Ensuring water safety.*** Existing legislation in Benin assigns responsibilities to ensure that water quality is guaranteed from the point of abstraction to the point of water delivery to consumers. Implementation of this legislation has been patchy, however, as noted in the National Strategy. Piped water supply systems constructed or rehabilitated under the Program are at risk of being contaminated if water quality is not monitored correctly. The Program offers an opportunity to ensure stronger enforcement of existing legislation to improve water safety records and reduce the incidence of water-related diseases, provided key measures are adopted as detailed below. The

Program will provide support to the Agency for the development of water safety monitoring systems as part of its service supervision responsibilities, in coordination with deconcentrated services of the MEM and the MoH. The objective of these activities will be to ensure that activities required by the legislation are systematically undertaken, including amongst others: (i) systematic testing of the quality of raw water resources at design stage to identify potential risks and remedial measures; (ii) ongoing monitoring of raw water quality; (iii) ongoing monitoring of water quality at the point of supply. In addition, it is strongly advised that the private operators be given responsibilities in the areas of water-related hygiene promotion towards customers: this could include education on hand-washing and water storage practices.

17. Under the Program, the installation of a chlorination system will need to be included in the detailed designs and bidding documents for new piped water supply systems. The water treatment units constructed will consist of chlorine metering pumps which will be placed right after the main intake. These metering pumps can deliver the required amount of chlorine by injecting it directly into the upstream water main before reaching the reservoir. However, there is no evidence at present that there is a well-developed network for spare part distribution and repair of such pumps; these would need to be in place to ensure that this type of equipment is installed systematically on new piped water supply systems, or fitted retroactively on existing ones as part of rehabilitation works. In case the water quality in the aquifer becomes degraded, techniques such as aeration, sedimentation and sand filtration followed by chlorine disinfection should also be considered. Ongoing water quality monitoring and treatment by water supply system operators will be essential to ensure that services meet necessary water quality conditions. According to the PGSSE, water producers and distributors should test water quality twice a year for physico-chemical tests and every quarter for bacteriological tests. Existing requirements will be reflected in private operators' contracts and their application will be monitored by the ANAEPMR through the deconcentrated services of the DNSP in the MoH.

18. ***Standardizing design parameters and construction standards.*** The Program provides a unique opportunity to standardize and roll-out technical norms and standards throughout the country. The ongoing World Bank-funded PEPRAU project is currently funding technical assistance to ANAEPMR for the definition or harmonization of technical norms which will need to be incorporated into the contracts for design engineers, works contractors and private operators, under the PEPRAU, the Program and any other investments funded and implemented by the ANAEPMR. At present, there are no standard norms that are commonly applied for a number of key areas. For example, different service providers may use different types of water meters, which increases overall running costs (as it limits opportunities for bulk purchases) and also increases the risk of failure of such equipment (as they are likely to be more difficult to repair in the event of a breakdown). Standardizing technical norms will be particularly beneficial for areas such as borehole drilling, water storage, water distribution networks and water meters.

19. ***Rationalizing energy use.*** The Program will offer an opportunity to rationalize the use of energy for water production, so as to reduce overall operating costs, reduce the risk of service outage and contribute to mitigating climate change through the use of renewable energy. The Program will encourage the choice of an energy source for pumping that reduces operating and maintenance costs and climate impacts. The PDDAEPMR specifies that a connection to the grid should be established when available, that thermal energy (i.e. an autonomous generator) should

be used for localities between 2,000 and 3,000 inhabitants and that solar energy should be relied upon for smaller localities. The technical feasibility and cost-effectiveness of connecting to the national grid or to install solar energy solutions will need to be explored in detail during the feasibility studies for specific sites according to hydrogeological and hydraulic constraints.

20. ***Coordination with sanitation and hygiene promotion.*** Given a fragmented institutional context for sanitation and hygiene, water investments run the risk of being implemented in isolation from other interventions or investments that could strengthen overall impacts on health and well-being, such as interventions in rural sanitation and nutrition. Even though the core mandate of the ANAEPMR is focused on interventions in the rural water supply sector, the technical assessment found that, in order to enhance the health impacts of the Program, the ANAEPMR should ensure that piped water supply system operators fully comply with the requirements of the PGSSE in terms of water point protection and hygiene promotion. To do so, the Agency should coordinate its interventions more closely with those undertaken by other actors involved in sanitation and hygiene promotion, including the MoH. The MoH and its funders are in turn responsible to better identify “hot spots” identified based on access to WASH services and health statistics. At present, there is no to very limited sharing of information on these aspects, either at local or at national level. Information provided by the Multiple Indicator Cluster Surveys (MICS) 2014 shows that there are linkages between areas with limited access to water supply and areas with high rates of open defecation. When entering the construction phase and preparing detailed engineering designs, additional information on local context will need to be obtained so as to apply clear prioritization criteria and maximize impact. Private operators will need to deliver services in line with municipal hygiene plans for the localities and their contracts should include specific responsibilities for water-related hygiene education, such as education about water storage and hand-washing practices.

Institutional Arrangements

21. The Program’s institutional arrangements are sound and well-aligned with GoB’s ongoing reforms of the rural water sector. However, these institutional arrangements are new and untested in Benin, and could therefore generate substantial risks if the reform process is not adequately managed. The provision of water services has so far been placed under the exclusive responsibility of municipalities, which have been receiving some limited assistance from central Ministries and their deconcentrated services to plan and supervise the delivery of such services. The creation of the ANAEPMR and the letting of regional contracts will lead to a recentralization of some of these functions with the objectives of consolidation and the introduction of stronger checks and balances. Institutional reforms are still ongoing and will be implemented with support of the Program. The overall direction for these reforms has been defined in the Agency’s Roadmap (“*Feuille de Route*”), which was approved by the President of Benin in November 2017. These orientations will need to be translated into policy documents, as well legal and contractual arrangements in order to clarify the roles of institutional actors in the sector following the reforms. They will also need to be clearly communicated to sector actors so as to minimize the risk of confusion.

22. The Program’s main implementer is the Rural Water Agency (*Agence Nationale pour l’Alimentation en Eau Potable en Milieu Rural - ANAEPMR*). Having a main counterpart for Program implementation will provide clarity of focus and leadership for implementation of the

Program, which is clearly aligned with the core mandate of the Agency. The Agency holds standard roles assigned to other asset-holding agencies in countries in the sub-region, both for urban and rural water services. These agencies were formed in many instances with support from the World Bank; they have accumulated considerable experience that the Agency will be able to draw from, including through exchange programs. Similar reform experiences in the region, such as the creation of the Rural Boreholes Agency (*Office des Forages Ruraux-OFOR*) in Senegal show that reforms take time and have also highlighted key areas that need to be taken into consideration, such as the need for simultaneous tariff reform. Another lesson from regional experiences is that an asset-holding agency can perform better if its roles, specific objectives and available resources to achieve those objectives are clearly laid out in formal contractual arrangements signed between the line Ministry and the Agency. As part of the Program, a multi-year Planning Contract (*Contrat Plan*) will be signed by GoB and ANAEPMR to clarify mutual roles and responsibilities: the initial adoption and renewal of such a contract has been included in the Program's results framework. This contract will define the institutional actors' respective commitments, their objectives over a three to five year rolling period, multi-year allocation of financial resources and will specify time-bound responsibilities, including for the setting up of service monitoring systems for example.

23. The Agency was recently created, and has no proven track-record in terms of delivering an investment program of such a scale or supervising delivery of quality water services across the national territory. Its creation has significantly impacted the roles and responsibilities of other institutional actors, particularly that of the MEM, of the MoH and of municipalities. The definition and formalization of these new roles is still pending the realization of an organizational assessment for the DG-Eau within the MEM (which is being financed by PEPRAU) and the adoption of the FPAs between the central Government and municipalities. Up to this point, there has been no official text to clarify roles and responsibilities and reflect recent reforms, given that the reforms are still ongoing and responsibilities are being assigned.

24. For long-term sector sustainability, it will be important to clarify responsibilities for setting and adjusting tariffs or defining and applying norms and standards. With respect to tariff regulation, it is anticipated that the MEM will continue to be in charge of setting and enforcing tariffs. This will require clarifying tariff setting principles, structures and applicable taxation (particularly as this proved to be a key hurdle for the contracting of private sector operators in Senegal). For this reason, the approval of a tariff structure for rural water supply services has been introduced as a results indicator in the Program results framework. In the longer run, a sector law could be drawn up to clarify roles and responsibilities of institutional actors and provide institutional stability.

25. To deliver on its responsibilities, the Agency will need to rely extensively on external technical assistance. This technical assistance will help clarify the applicable contractual arrangements, which have been defined at a general level but for which specific details need to be worked out. The Technical Assistant funded by PEPRAU will play a critical role to advise the Agency with key decisions for the design of the Program, particularly with respect to the definition of the regional operators' service areas, reconciling multiple factors linked to geography, socio-economic conditions, technical and political factors. Similarly, the Task Force of experts in PPPs will play a critical role for the design of the contracts as well as supporting the Agency with the

actual transactions. It will be essential to mobilize high quality dedicated consultants of the task Force for that purpose, and to manage them well.

26. The Program will also support institutional support and capacity-building activities, that will benefit the ANAEPMR so that it can enhance its investment planning capacities for rural water supply, its information system and its supervision capacities. Additional technical assistance may be provided to the deconcentrated services of the MEM and the MoH. The detail of these capacity building activities still needs to be drawn up and will most likely evolve throughout the Program, to adjust to capacity building needs. It is advised that the Agency and sector stakeholders draw up a joint capacity building plan, once their respective roles and responsibilities have been clarified. Supervision of service quality, which has so far been the responsibility of the DG-Eau and of the MoH (with respect to water quality aspects), has historically been weak due to a lack of financial and human resources. This is an area that will need particular focus when designing the program of technical assistance to strengthen ANAEPMR and other sector actors with residual responsibilities in this area, and with which ANAEPMR will need to coordinate its own activities.

27. To facilitate transfer of responsibilities from the municipalities to the ANAEPMR for the implementation of the national investment program, the GoB, represented by the Minister of Water, will sign FPAs (*Convention Cadre*) with municipalities. Signing these FPAs is critical for the implementation of the entire Program. Its signing will also be treated as a prior result. The FPA will establish the terms and conditions for the partnership between the central government and municipalities, particularly with respect to the programming, financing, implementation and sustainable management of drinking water supply systems in rural areas. Under this FPA, ANAEPMR will be empowered to prepare and award public service delegation contracts to regional operators and to monitor the infrastructure and related service delivery. The FPA is a high-level document, which means that further precision will need to be included in subsequent legal provisions or contractual arrangements to ensure that the allocation of roles and responsibilities between central level institutions and municipalities is clear and that the ANAEPMR is accountable to the municipalities for this transfer of responsibilities relative to the implementation of the national investment program. The ANAEPMR will need to publish regular public reports on asset management and service monitoring. Municipalities will be able to rely upon these reports in their interaction with their citizens for handling water-service related queries.

28. Based on the FPAs, the ANAEPMR will be entitled to sign affermage contracts with private operators. The design of these contracts will be the subject of an in-depth study during the first month of the Program's implementation. A technical study, undertaken by the Technical Assistant to ANAEPMR, will help determine the appropriate perimeter of the operators, will assess baseline conditions and will provide inputs for the definition of contractual arrangements, particularly with respect to contract length, risk allocation, performance indicators and remuneration formula. A Task Force will work on the design of these contracts, including legal and financial aspects.

29. It is expected that the affermage contracts will cover a number of drinking water systems in several municipalities. Technical studies will confirm the number of regional operators to provide water supply services in rural areas across the national territory. There will be six contracts, which means that the rural population living in the perimeter of a given private operator

contract will be approximately 1 million people. Such a scale is deemed appropriate to attract private operators of a certain size, including international operators. The contracts will have an appropriate duration in line with the responsibilities of the regional operators, particularly with respect to financing. Under these contracts, private operators will:

- Carry out the construction of rehabilitation and expansion works financed by the Program. These will be carried out based on bills of quantities included in their contracts;
- Operate new or existing systems supported by the Program, as well as existing systems whose affermage or affermage agreements with the municipalities on their operating perimeter may expire or be terminated during the life of the regional operator's contracts and that they could be asked to take over;
- Be remunerated based on their bid price (which will set the private operator's remuneration) adjusted to take account of a number of performance criteria. The private operators will assume at least part of the commercial risks as their remuneration formula will, amongst other indicators, reflect their performance with respect to collection.

30. The GoB decided to adopt a regional private sector participation model based on lessons from more than ten years of private sector participation in the rural water sector, to address persistent shortcomings with existing models and accelerate implementation towards universal coverage. Letting performance-based contracts on a regional scale is seen as a key way to overcome issues of lack of capacity for contract design, tendering, contract management and service quality monitoring at the level of municipalities. Even though municipalities have responsibilities for water service provision, they have limited resources and are frequently unable to provide funding for rehabilitation and extensions (which would be needed in the case of an affermage) or to provide adequate contract supervision. The emphasis on regional contracts was inspired by regional experiences, such as in Senegal. This assessment found that letting regional contracts is appropriate in the context of Benin, provided the following factors are met: (i) municipalities effectively transfer their responsibilities for contracting and supervising private operator contracts, and are clear about their residual responsibilities, particularly in terms of local level planning, monitoring of water quality or resolution of customer complaints; (ii) contracts are designed in a way that is attractive for professional private operators; (iii) monitoring of service quality can be effectively carried out jointly by the ANAEPMR, deconcentrated services of the DG-Eau and of DNSP as well as municipalities (for local level monitoring); and (iv) mechanisms are in place for ensuring citizen engagement and adequate treatment of customers' grievances at the local level. Given that the operators will be responsible for constructing infrastructure, carrying out pre-specified works based on bills of quantities and for managing the services, it may be necessary to have different firms associate, including water service operators associating with construction companies in order to bid for these contracts. As part of their contractual obligations, the engineering consultant, works contractors and private operators will have to apply a social intermediation methodology. This social intermediation methodology will entail participation of municipalities, ACEPs and citizens throughout the consultation process during the planning, design and supervision phases of the works.

31. The affermage contracts will need to include strong incentives for performance improvements. They will be prepared based on existing contractual models that have delivered performance improvements in similar contexts. The performance-based affermage contracts used in both urban and rural Senegal provide good examples, for example. Those contracts define a

number of performance parameters. Private operators face two types of incentives to improve their performance with respect to these indicators. Critical performance indicators (related to non-revenue water and bill collections) are embedded in the private operator's remuneration formula, which means that they would directly benefit (or be penalized) in accordance with their ability to shift performance in line with those indicators. In addition, the contracts will reflect service level norms and other service performance indicators (with associated targets), which have associated penalties for non-compliance. A comprehensive set of result indicators will be defined, which will capture both elements of performance of the installations, as well as customer service indicators.

32. Human resources for professional water sector service delivery will need to be strengthened and this will be achieved through specific activities funded by the Program, with a particular focus on empowering women to engage in water service delivery and supervision. After having considered the alternative of a new dedicated training center for rural water supply specialists, it was decided that the Program should focus on strengthening the existing training centre for urban water supply professionals (*Centre de Formation des Métiers de l'Eau* - CFME). CFME is presently oversized and has large enough premises and some of the necessary pedagogical equipment to enable a scale-up. The reform of the urban water supply sector is an opportunity to turn the CFME into a national training operator for the entire water sector - urban and rural, as long as it can become autonomous and its efficiency be improved.

33. Mechanisms have been included in the design of the Program to ensure that citizens are given a voice to express their preferences and can voice complaints and have these redressed. Municipalities will need to hold regular meetings to ensure transparency on management and obtain customer feedback – ANAEPMR will need to identify how it will be involved in those processes. Specific mechanisms will need to be established to take account of women's point of view. All these activities will require strong institutional coordination and strengthening of institutional actors at all levels, including locally.

34. To achieve its objectives and contribute to addressing gender gaps in the country, the Program will need to alleviate constraints for women and girls for accessing services and boost their opportunities to be productively engaged in the water sector. The issue of ensuring greater voice and agency will also need to be considered in detail, to ensure women's adequate participation in the sector. An assessment of the gender and social inclusion dimensions of the Program was carried out during preparation with GWSP support. The assessment explored gender gaps in two distinct areas: (i) in terms of gender-based difference in access to rural water services and water-related hygienic practices (including hand-washing at critical times, food preparation, bathing and washing and menstrual hygiene management) and (ii) in terms of women's participation and levels of empowerment in institutions participating in the governance, delivery and supervision of water services and water-related hygienic practices in rural areas, including at central level in the MEM/ DG-Eau, MoH / DNSP and ANAEPMR; and at local level, including for local governance and service provision, within municipalities, private sector operators, CBOs and ACEPs. This assessment examined the existing barriers such as access to information, inadequate complaint-redress mechanisms or limited access to financial services, that currently limit women's access to water services and need to be specifically addressed. In addition, the analysis examined whether women's participation in the delivery of rural water services could be

supported through the Program, as it is currently very limited and since improving economic opportunities for women is a priority of the draft CPF for Benin.

35. To achieve its objectives and contribute to addressing gender gaps in the country, the Program will seek to alleviate constraints for women and girls for accessing services and boost their opportunities to be productively engaged in the water sector. The Program will improve access to water supply services: this will translate into multiple impacts including improved living conditions, health, school attendance, productivity and income. It is anticipated that women and girls will particularly benefit from those impacts given the disproportionate role they play in fetching water for households at present. In addition, the Program has defined a number of measures to increase voice of women in consumer committees (ACEPs) and support them to access training for water sector technical professions.

Program Expenditure Framework

36. The Government has in place budget and expenditure management systems and practices that support the Program in reaching its expected results. The Program Expenditure, as shown in Table 8 of the TA, will mostly be financed by the World Bank loan (US\$220 million, equivalent to 92 percent) with the GoB contributing directly eight percent (US\$20 million), which will cover budget allocations to the Agency for its running costs and some investments in piped rural water supply systems.

37. The unit costs for drawing up the Program Expenditure framework were estimated based on a review of unit cost estimates included in the PDDAEPMR and a comparison with regional benchmarks. The average capital cost per person served through a mix of technical options (new/rehabilitated/expanded water supply system) was estimated at FCFA 65,000 (US\$122). These costs appear reasonable when compared to data obtained from similar water supply projects for example in Senegal (Saloum islands and Kaolack). Despite variations in unit costs, the same payment per person served was included in the Program design to provide incentives to extend coverage and identify the most appropriate ways of doing so during Program implementation, based on local-level demand and financial viability. It is expected that the private regional operators will have a strong built-in incentive to provide household connections given that they result in higher water sales and therefore higher revenues for the operator. As household connections allow for the consumption of more water and reduce the burden of fetching water, they also deliver greater economic benefits for the population.

38. As the Program will mostly rely on public investments, it will be essential to build in incentives for delivering the Program in the most efficient way possible. The unit costs reflected in the works program will need to be closely examined to reflect efficient market costs. Given that the localities where the Program will invest have not yet been defined, there are no detailed studies on which to rely for estimating such costs. There is always a risk that, for a Program of this scale undertaken with external financing, contractors may seek to apply a mark-up on costs. A full review of these designs will be needed to refine the estimates of unit costs provided in the TA in Table 9. These could vary depending on the difficulty of the material being drilled (depth/type of aquifer), as well as unexpected construction delays.

Results Framework, Monitoring and Evaluation

39. The Program’s results framework was drawn up based on the definition of a clear results chain, ranging from activities and inputs to intermediate outcomes and outcomes (see Table 10 of the TA). The definition of this results chain was led by the ANAEPMR, which demonstrated a clear understanding of the underlying Theory of Change for the Program.

40. The design of the Program is focused, hence there are a limited number of results indicators providing for clear incentives during implementation. Results indicators have been included with respect to gender aspects and citizen engagement. Following discussions with the Government, it was deemed premature to include indicators that relate to service quality as part of the Program results framework. However, private operators will have clear service quality improvement targets as part of their contracts. In the affermage contract model under consideration, remuneration will be directly tied to the ability of service providers to improve service quality with respect to key parameters.

41. Four DLIs were identified along the different steps of the results chain. The DLIs were selected to provide clear incentives for achieving results and to support key milestones towards their achievement. The rationale for the selection of the DLIs is sound and well understood by all parties:

- The two first DLIs, “The number of new household connections built under the Program” and “The number of new standpipes built under the Program” are outputs. They are scalable, which means that disbursements will take place throughout the life of the Program as soon as water supply schemes are commissioned and effectively deliver water to end-users. Such DLIs will provide strong incentives for the Agency and for the regional operators to deliver results on the ground.
- The third DLI, “Framework Partnership between the Government’s MEM and selected municipalities established” is at the output level. This DLI consists of two sequential sub-indicators. The first one, the signature of the FPAs, is a key milestone that will condition the implementation of the entire Program and will demonstrate high-level political support for the Program. The second one, the bi-annual publication of service monitoring reports, will reflect the new role of the ANAEPMR for water supply service monitoring in rural areas, and will make it accountable for its responsibilities for service provision.
- The fourth DLI, “Performance-based contracts between the ANAEPMR and regional operators signed and with service orders issued” is also at the output level. There will be six regional contracts signed to cover all rural areas in the country. The preparation of these contracts, their marketing to potential operators and their effective signing will represent a significant amount of work for the Agency.

42. The implementation of the Program’s M&E framework will require strong M&E tools, first, to gather information on a real-time basis and, second, to verify the information. The Agency will perform routine monitoring and evaluation (M&E) activities based on information provided by the private operators, as well as the deconcentrated services of the MEM and MoH (for water quality). Monitoring and evaluation capacities within the Agency are solid. However, since the Agency has no proven track-record of effective monitoring, the M&E department will need to be

reinforced with additional staff and will need to develop effective mechanisms of working with the deconcentrated services of DG-Eau, the MoH and municipalities.

43. Routine monitoring activities will greatly benefit from the universal roll-out of a web-based management tool and monitoring platform, m-water, which offers multiple functionalities. This management tool was developed and extended as part of a WSP-funded activity and has demonstrated its operational value particularly for local private operators working under “subsidized concession” contracts. This monitoring platform requires that the water systems be geo-referenced. It allows service operators to produce the activity reports that existing operators are expected to submit to municipalities every month. Despite the significant advantages of the existing web platform, the TA has identified weaknesses in the management of the information produced by the existing web-platform, including in terms of providing staff in charge of service monitoring with access to information and enabling them to adequately process this data. The Agency and the MEM will need to be trained and granted access rights to effectively manage real-time information on the current operating status of rural water systems in a form that is suitable for service monitoring purposes at a fairly aggregate level. DLI 3 of the Program creates an incentive to address this challenge.

44. The INSAE will be the IVA for the Program. The bulk of the verification activities will relate to DLIs 1 and 2. The other two DLIs are more straightforward to verify, as they are based on ensuring that legal documents have been signed and that monitoring reports have been published. With respect to DLI 4, it will be important to verify not only that the contracts with private operators have been signed, but also that the operators have effectively started service provision, with all required pre-conditions put into place. The TA found that the INSAE fulfills the minimum criteria for an IVA, including in terms of autonomy and adequate capacity. The INSAE was deemed to be sufficiently independent to verify results in an unbiased and nonpartisan manner.

Economic Analysis

45. The rationale for providing public financing for the Program is strong. The Program aims at extending access to rural water services. In rural areas, ability to pay is low, whilst costs of extending services are substantial, and potential economic returns may also be substantial. Here, the use of public financing is considered appropriate for supplying what is a basic public good. Improving access to rural water supply services will translate into multiple impacts, including improved living conditions, health, school attendance, productivity and income. It is anticipated that women and girls will particularly benefit from these impacts given the predominant role they play in fetching water for households.

46. The Program will benefit a targeted 1.6 million people who will receive improved services across several parameters. The population will spend less time fetching water, as the Program aims to provide at least 50 percent of the target population with access through a household connection (time fetching water goes down to zero) and 50 percent through a standpipe (time fetching water will be reduced to below 30 minutes round trip).

47. The Program will generate local jobs, including for construction of the systems and for operating and maintaining piped water services. Thanks to investment in training and development of a professionalized workforce for rural water supply services, including for women who will be encouraged to join the workforce, a greater proportion of these jobs will be qualified jobs which will attract higher salaries. The program will also reduce pressure on the use of local groundwater resources (through stronger monitoring and management of these resources) and of energy sources (through an emphasis on connecting piped rural water supply systems to the grid or relying on solar energy).

48. The construction of new rural water supply systems will benefit approximately 827,000 people who had no prior access to improved water supplies and will either get water through standpipes or household connections. This will result in greater time gains and illness reduction. Rehabilitated systems will generate reductions in operating costs as well as time gains, health benefits and an increase in consumer surplus for populations that switch from standpipe supplies (charged at an average price of CFAF 800 per m³) to household connections, for which water is charged at an average price of CFAF 500 per m³.

49. Gaining access to water within the home will allow for usage of greater water volumes. At present, it is estimated that families who fetch water from standpipes or non-improved water points use approximately 5 to 7 liters per day per capita, which is below the recommended standard for hygienic practices per capita per day (20 liters per capita per day). Depending on the tariff applied by private operators, higher consumption may not necessarily result in greater total water costs for consumers. At present, water users who buy water (at a standpipe for example), pay approximately FCFA 20 (US\$0.04) for a bucket of 25 liters, which is equivalent to FCFA 800 (US\$1.5) per m³, although this price varies considerably between departments. This price includes the mark-up applied by the standpipe operator. It is four times higher than the social tariff applied by the urban water utility (SONEB) to households which consume below 5 m³ per month, which is FCFA 198 per m³ (US\$0.37) for higher consumption volumes (27 liters per capita per day for a household with six people).

50. An economic analysis was conducted to compare costs and benefits with and without the Program. Costs and benefit streams were projected over 30 years and discounted at a social discount rate of 8 percent. Benefit streams were estimated for four groups of beneficiaries to take account of the different ways in which they will benefit from the Program. Costs included all Program costs (including costs of reforms, construction and rehabilitation costs) as well as operating and maintenance costs and households' contributions to connection costs.

51. The analysis yielded a benefit-cost ratio of 5.44, which is in line with international estimates of similar investments in areas with limited access to water supply. The net present value of costs and benefits is US\$1.8 billion, which is equivalent to an annual net benefit per person of US\$38. Overall, the IRR for the investment was estimated at 144 percent. A sensitivity analysis was conducted on a number of parameters, including the social discount rate, the value of time and the impact of the investments on diarrheal illness reduction, and operating costs. The results are particularly sensitive to estimates of incidence of diarrheal episodes in the affected region, the impact of the project on waterborne disease reduction and the value of time. The NPV remained

highly positive under all these scenarios, which implies that the Program will generate high positive returns for the economy.

52. The rationale for World Bank support is strong. The proposed operation is closely aligned with the Bank's twin goals of ending extreme poverty and boosting shared prosperity, as well as the overarching theme of sustainability. The GoB is committed to delivering universal access by 2021 (by which they really mean coverage, i.e. providing all people with access to an improved water source within 30 minutes of their dwelling).

53. The World Bank assistance to develop and support this Program will facilitate the sharing of lessons learned from successful rural water projects globally, while also building capacity for results-based planning and financing in the national Program. In particular, World Bank support provides incentives for balanced, efficient investment in water supply, as well as improved governance and financial processes.

54. An assessment of technical risks and identification of associated risk mitigation measures has been included in Annex 7.

Annex 5: Fiduciary Systems Assessment

This Annex 5 corresponds to the complete Program’s Integrated Fiduciary Systems Assessment.

Scope of the IFSA

A. Introduction

1. As part of the Program preparation, the IFSA of the Program was carried out, consistent with World Bank Policy and World Bank Directive: “Program-for-Results Financing” and in accordance with the World Bank Guidance Notes for ‘Program-for-Results Financing’. The objective of the assessment was to examine whether Program systems provide reasonable assurance that the financing proceeds will be used for their intended purposes, with due attention to the principles of value for money, economy, integrity, fit-for-purpose, efficiency, effectiveness, transparency, fairness, and accountability. The FM systems were assessed to gauge the extent to which the planning, budgeting, accounting, controls, funds flow, financial reporting, and auditing systems and practices provide a reasonable assurance on the appropriate use of Program funds and safeguarding of its assets. Equally, the Program procurement systems have been assessed to establish the extent to which the planning, the bidding, evaluation, contract award and contract administration arrangements and practices provide reasonable assurance in support of achievement of the Program results through its procurement processes and procedures. In addition, the assessment covered the aspects of capacity of the fiduciary systems and considered how Program governance systems manage the risks of fraud and corruption and how such risks will be mitigated.

2. The IFSA was conducted through a methodical review of systems and practices at the national and district levels, involving the review of analytical work mainly: (i) PEFA 2014 Assessment; (ii) Public Expenditure Management and Financial Accountability Review (PEMFAR 2014); and (iii) Assessment of Procurement Systems conducted in 2015 by the World Bank and the African Development Bank. The team also reviewed the lessons learned in the implementation of World Bank operations in the water and sanitation sector. The WSS in Benin is supported by several Development Partners, including the World Bank through its “Small Town Water Supply and Urban Septate Management Project (PEPRAU)” (P156738). The PEPRAU, approved in December 2016, was the first lending operation of the World Bank since the closing in December 2000, of the Rural Water Supply and Sanitation Project (P000121). The PEPRAU aims at increasing access to water supply and sanitation in selected rural and urban areas and strengthen service delivery capacity of WSS.

3. The conclusion of the IFSA is that the Program systems meet the requirements of the World Bank Policy and World Bank Directive: “Program-for-Results Financing” and are adequate for achievement of the Program objectives. The IFSA has identified certain risks and measures to mitigate such risks. The risks mitigation measures will be managed through implementation of the PAP. The overall Program integrated fiduciary risk (FM, procurement, and governance) is rated high because of weaknesses in legislative and institutional framework in procurement, internal controls and auditing, procurement, and governance systems and practices in the country. The capacity of the Agency (e.g. newly created agency) as well as its governance arrangements also remain a challenge. The key mitigation measures arising from the identified risks, that are largely contained in the DLIs/PAP include the following: (i) the adoption and promulgation of the decrees

required for the implementation of the new procurement code and standard bidding documents; (ii) the creation of a procurement control unit and appointment of the person responsible for approving contracts at ANAEPMR; (iii) opening of a DA managed by the CAA and a “Treasure Saving Service Account for Investment” managed by ANAEPMR to prevent cash constraints; and (iv) bi-annual joint technical, procurement and financial internal audit of the Program to ensure efficient use of the Program funds. Hands on support and capacity strengthening of the Agency and of the MEM’s Inspectorate General of the Ministry (IGM) are also planned during the entire implementation period of the Program.

B. Program Design (Institutional arrangements) and Expenditure Framework

4. The IFSA covered the newly created ANAEPMR³⁸, the implementing agency of the Program supported by the World Bank. The GoB created ANAEPMR in January 2017 to consolidate the execution of all rural water supply activities, to expand more rapidly access to water supply services in rural areas and establish service delivery models for a quality and sustainable operation in coordination with the municipalities. The ANAEPMR is under the supervision of the Presidency.

5. All the Program activities will be executed by ANAEPMR using its fiduciary procedures described in the manuals of the Agency. The ANAEPMR is staffed with one experienced recruited procurement specialist. The FAD is supported by the FM team of ANAEPMR currently composed of one accountant. The selection of the remaining staff is on-going and is expected to be completed by Program effectiveness. The ANAEPMR is organized in conformity with the country procurement legislation with a Procurement Commission and chaired by the nominated Person in charge of Procurement. The documents (Bidding Documents, Request for Proposals, Bid Evaluation Reports) conjointly elaborated by the procurement commission and the ANAEPMR should be submitted for decisions to the procurement control unit of the ANAEPMR or to the National Procurement Control Directorate (*Direction Nationale de Controle des Marchés Publics*) under the Ministry of Finance depending of the competency of the procurement control threshold. In absence of the establishment of the procurement control unit of the ANAEPMR, all documents are submitted to the National Directorate for Public Procurement Control (*Direction Nationale de Contrôle des Marchés Publics – DNCMP*) for decision.

6. The Program will finance a portion of the GoB’s program expenditures for universal rural water supply estimated at US\$560 million. More specifically, the Program will support over the period 2018-2024 the development of rural water supply systems and professionalized service delivery models in selected municipalities with lower access to rural water supply services. The Program focuses on the development of piped water schemes. The Program will also finance the capacity building activities of the newly created national agency in the water sector– ANAEPMR.

³⁸ Decree No 2017-039 of January 25, 2017.

Table A5.1: Summary of the Program Expenditure Framework

Funds Source	Amount (in US\$ million)							Total
	FY19	FY20	FY21	FY22	FY23	FY24	FY25	
Government		4.00	4.00	4.00	4.00	4.00		20.00
IDA including IDA Scale - Up Facility	20.00	43.00	61.00	42.00	36.00	18.00	0.00	220.00
Total	20.00	47.00	65.00	46.00	40.00	22.00	0.00	240.00

Review of Public Financial Management Cycle including Procurement

A. Legislative and institutional PFM framework

A1. Procurement:

7. The last assessment conducted by the World Bank and the African Development Bank of the procurement system was completed in 2015. This assessment revealed some weaknesses relating to lack of transparency, lack of efficiency and low capacities. On the basis of recommendations made and within the framework of the transposition of WAEMU Directives, the GoB adopted a new procurement code no 2017 – 04 on October 19, 2017. The elaboration of application decrees of this new law is ongoing and is expected to be adopted by end of FY18. The review of the draft decrees revealed that the procurement thresholds and the procurement control threshold have not been increased sufficiently as recommended in the PEMFAR report.

8. It is also noted that the decree covering the request for quotation is separated from the decree on the request for price information. It is recommended to increase the procurement thresholds and the procurement control threshold and to not separate the two decrees of the request for quotation and the request for price information. In the new adopted procurement law, the open tender procedure is the procurement method used as a matter of principle. This method is mandatory for contracts above a certain threshold. The new thresholds will be updated through the decree of application of the new procurement law.

9. The information and price request procedure and the direct contract option are other methods accepted by the code, under certain conditions. The procurement law stipulates that the total amount of contracts concluded through direct contract will not exceed 10 percent of the total amount of the contracts concluded in the year. There is no statistic to prove that this direct contracting percentage was respected. It is recommended to conduct the procurement process through SIGMAP (e-GP) to have statistics available in terms of amounts of contracts approved and amount per procurement methods.

A2. Financial Management:

10. The enabling legislative and institutional framework for FM is contained in the (i) Constitution – Law No 90-032 dated on December 11, 1990 (Article 99 related to Finances Laws including Settlement Laws); (ii) Organic PFM law no 2013-14 dated on September 27, 2013 which

were aligned with the WAEMU directives; (iii) WAEMU directives; and (iv) some through decrees and ordonnances, subsidiary legislations, regulations and operational and financial directives which dictate the day-to-day basis for the management and oversight of public finances.

11. In general, the legislative and institutional framework for PFM is in place and globally considered acceptable. This framework is in line with or approximates international standards. In addition, Benin has transposed the WAEMU directives, regulations, and rules on public finances into national law. However, this is still in process, with some delays, notably in the budget, accounting, internal control and external auditing. Furthermore, compliance with this legislative framework as well as rules and regulations remains a key challenge for the government.

12. For the Program, in addition to the legislative and institutional PFM framework, the design of the FM arrangements considered the ad hoc arrangements described in the following two Circulars: (i) Annex 2 of the Letter no 11-c/MEF/DC/SGM/DGB/DPSELF/SPSB of January 5, 2018 and (ii) no 950/MEF/DC/SGM/DGB/DPSELF of March 26, 2018. The two Circulars clarify mainly how to mobilize, manage and control the resources under the responsibility of Government agencies. Under these Circulars, ANAEPMR can execute the budget allocated to the Agency outside the country public expenditure chain and using its own accounting and FM procedures detailed in its manual of procedures.

B. Planning and Budgeting

B1. Adequacy of budgets.

13. The Organic Budget Law (LOLF) no 2013-14 dated on September 27, 2013 has introduced the Performance based budget which uses statements of missions, goals and objectives to explain how the money is being spent. The new multi-year expenditure programming documents (*Documents de Programmation Pluriannuelle de la Dépense*) are prepared according to the new WAEMU directives on PFM.

14. The overall cost of the supported Program including the portion financed by the World Bank are included in the multi-year expenditure programming documents as well as the PIP. The annual budgets are prepared based on the PIP. Importantly, the Government has recently adopted a policy of only including projects from the PAG in the PIP, as well as projects which are mature and ready for implementation (e.g. feasibility studies and technical evaluation already conducted to project readiness). Planning and budgeting related to this Program will follow the national procedures. Based on budget instructions/circular, the team of ANAEPMR will prepare the budget of the Program considering the limits of allocations set by the Government. The budget of ANAEPMR will be integrated in the budget of the MEM. Thereafter, this budget will be consolidated in the overall budget of the country. The national budget is approved by the Parliament.

15. The 2018 Finances Law includes a budget line in the budget of the MEM allocated to the Government Program in the sector. However, for the PforR operation, the budget line will be created once the Financing Agreement of the supported Program is signed. A due process between

the Ministry of Finances and the ANAEPMR via the Presidency is in place for negotiating the annual budget. This program is part of the five (5) priority Programs of PAG.

16. The total amount allocated to the Program during the fiscal year 2018 should be reflected in the revised 2018 Finances Law.

B2. Procurement planning.

17. Article 23 of Procurement Law No 2017 - 04 of October 2017 on the organization of the procurement process and the functioning of the procurement units provides that the Contracting Authorities have the responsibility to prepare, annually, the consolidated procurement plan (PPM) based on their activities program and in line with their allocated credit. The procurement plan approved by the relevant procurement control is submitted to the National Central Directorate of Procurement (DNCMP) for publication.

18. The inconsistency between budget and planning was noted. There is a disconnect between procurement planning and budget availability. Procurement planning for the fiscal year is done before the budget is allocated with overambitious results at this stage. The procurement plan is later adjusted based on the available budget and the priorities set by the agency. Execution of the procurement plan complies with the applicable rules and procedures for each procurement method applied as per the PPM. It is recommended to define in the new decree of the rule and modality of elaboration of the procurement plan that a draft PPM should be submitted together with the budget. Once the budget is approved, the draft Procurement Plan can be finalized and sent to the competent authority, for approval and publication.

C. Budget Execution

C1. Budget execution modalities for Government agencies

19. At the national level, the execution and management of contracts financed by the Treasury are significantly handicapped by long delays in payments. Late payments adversely affect the entire chain of public procurement financed through the Treasury. Moreover, this reduces competition. This undermines also the cost of contracts as well as the authority of the public administration in the management and administration of contracts.

20. Furthermore, proposed commitments for expenditure executed as per regular procedures are subject to approval by the financial controller before authorization for payment by the Treasury. Following approval by the financial control authorities and before the issuance of the payment order, Treasury rechecks the control procedures already carried out by financial control. The Treasury also provides approval for expenses. This duplication of tasks causes delays between the liquidation and authorization of expenses.

21. To ensure that the Program activities will be implemented within the timeframe agreed during the preparation of the Program, the Government has decided to allow the newly created ANAEPMR to use its own fiduciary procedures including planning and budgeting, accounting, internal control and audit, financial reporting, disbursement and external audit as described in the Agency administrative and FM procedures manual.

22. Specifically, the budget allocated to the Program every year, will be made available to ANEAPMR through the budgetary mechanism of "capital transfer". The budget allocation, once mandated and disbursed, allows to have endowment for the financing of capital spending. The capital transfer transaction follows the country public expenditure chain with some flexibilities to avoid any delays. However, it involves the key actors of the public expenditure chain mainly the Delegated Authorizing Officer (*Ordonnateur Délégué*), the Financial Controller's Delegate (*Délégué du Contrôleur Financier*) and the Public Accountant (Treasury). Hence, Program funds provided by the World Bank will be entirely reflected in the central government budget under the budget line for the Program of the MEM and will then be channeled to ANAEPMR through the Treasury to finance planned activities.

23. The budget execution performance in the sector is deemed low. As per the information provided by the Directorate of the Planning and Programming (*Direction de la Programmation et de la Planification* of the MEM), the budgets (both national and donors) allocated to rural levels in the water sector were executed at 10 percent in 2015; 8.3 percent in 2016 and 39.8 percent in 2017.

C2. Funds flow arrangements for Program implementation.

Disbursement from IDA to the Designated Account (DA)

24. A DA in XOF will be opened at the Central Bank (BCEAO) to receive the amounts of the initial advance up to 20 percent of IDA supported Program costs as well as the amounts corresponding to the DLIs achieved. Upon achieving DLI-related results, a Withdrawal Application (WA) will be submitted to the World Bank, using the World Bank's standard disbursement forms through the e-disbursement functionality in the World Bank's Client Connection system. The WA prepared by the team of ANEAPMR will be accompanied by certified and cleared evidence from the task team that the related results were achieved. The DA will be managed by the CAA in charge of the mobilization of donors' funds and management of debt in Benin.

"Treasure Saving Service Account for Investment" (*Compte du Service d'Épargne du Trésor pour investissement de l'ANAEPMR*).

25. A Treasure Saving Service Account will be opened and managed by the ANAEPMR. It will also ensure that request for payment addressed to ANAEPMR will not suffer of cash rationing and shortage.

26. Upon receipt of IDA funds into the DA, the CAA will transfer within a maximum of ten (10) business days, the entire amount to the Treasure Saving Service Account for investment (TSSAI) managed by ANAEPMR. The amounts to be received from IDA represents the "initial" advance up to 20 percent of the Program costs as well as the amounts of DLIs achieved.

27. The Government, through its budget execution procedure applicable to Agencies as described in the 2018 Finances Law³⁹ and related Circulars, will transfer its contribution to the

³⁹ 2018 Finances Law – Page 62 and 63 – Parag 34.1 and 34.2.

TSSAI to support some investment related to the Program. This contribution could pre-finance the expenditure. The Government would claim disbursements⁴⁰ from the World Bank as the DLIs are achieved. The process will follow the standard public expenditure chain which requires the intervention of the financial controller, public accountant and budget manager. The Government will transfer its annual contribution to the TSSAI based on the approved annual plan and budget as well as the payment estimates (“*plan de consommation*”). Additional supporting documents agreed between the Agency and the Ministry of Finance (DGTCP) as required by the country PFM acts will be provided as well.

Contribution of the Government to the operating costs of ANAEPMR: Transaction Account

28. The ANAEPMR will open a Transaction account managed by the Public accountant (Finance Director) and the Managing Director of the Agency in a commercial bank to receive the government contribution to support the operating costs of the Agency.

29. The DGTCP, through its budget execution procedure applicable to Agencies and described in the 2018 Finances Law⁴¹, will transfer to the Transaction account, its contribution to support the operating costs of ANAEPMR. The process will follow the standard public expenditure chain which requires the intervention of the financial controller, public accountant and budget manager. The Government will transfer its annual contribution to the Transaction Account twice a year. It will be based on the approved annual plan and budget as well as the payment estimates for the next months to be paid from the TSSAI.

Payments of service providers, contractors of the Program and operating costs of ANAEPMR.

30. According to Paragraph 34.1 and 34.2 of 2018 Finances Law, and related Circulars as described above, the TSSAI of ANAEPMR and the Transaction account opened in a commercial bank should be managed by the Public Accountant (Agent Comptable public) assigned to the Agency. However, the current Finance Director of ANAEPMR will be appointed by the Minister of finance as the Public Accountant assigned to the Program to manage the funds allocated to the Agency.

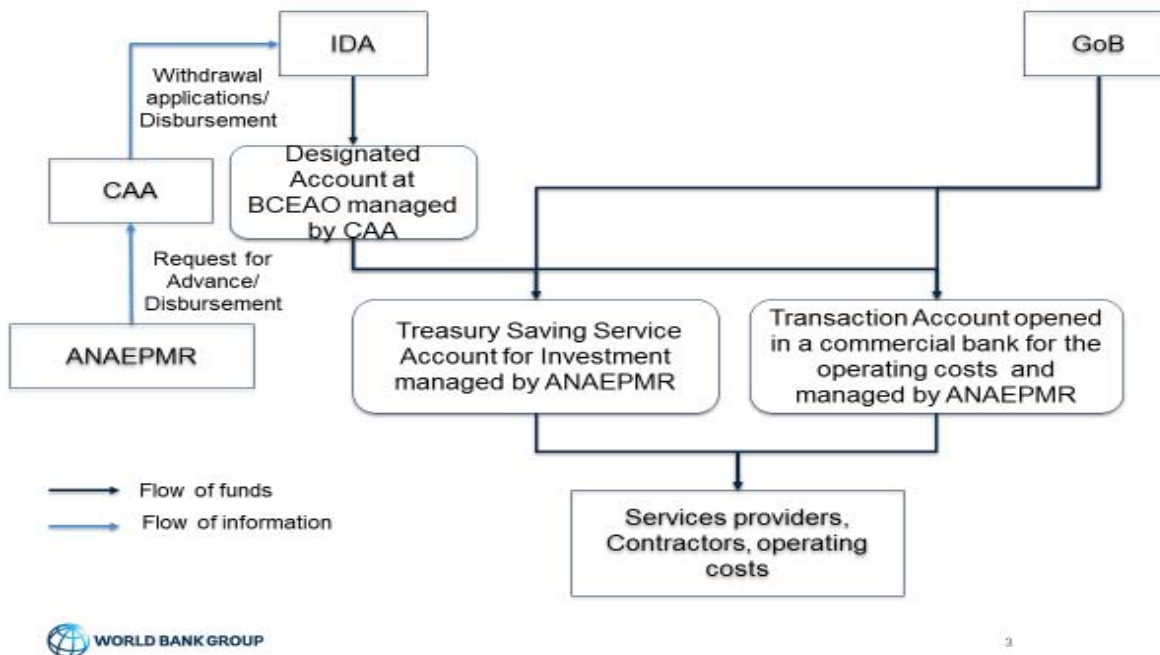
31. The funds transferred to the “Treasure Saving Service Account for Investment” and the Transaction Account managed by the ANAEPMR, will be spent following the Agency financial and accounting procedure manual. The Managing Director of ANAEPMR as well as the Public Accountant assigned to the Program (Finance Director) will sign all payments to beneficiaries, service providers and contractors. ANAEPMR will proceed payments to Implementing Agencies or contractors in regard to the specified activities in the Program. Payments will be made in accordance with the payment modalities, as specified in the respective contracts/conventions. In addition to these supporting documents, the ANAEPMR will consider the findings of the internal audit and IGM/IGF/ANRMP while approving the payments. The ANAEPMR will reserve the right to verify the expenditures ex-post, and refunds might be requested for non-respect of

⁴⁰ If there is any advance with the World Bank, either it could be adjusted or rolled over till the end of the Program for final adjustment.

⁴¹ 2018 Finances Law – Page 62 and 63 – Parag 34.1 and 34.2.

contractual/convention clauses. Misappropriated activities could result in the cancellation or suspension of financing for beneficiaries, service providers or constructors found guilty.

Figure A5.1: Funds Flow Diagram



C2. Accounting and financial reporting.

32. The public expenditure chain is computerized. The expenditure chain, which covers the budget execution and control cycles, is fully computerized and interfaces well with the procurement (SIGMAP) and the treasury system (ASTER). In-year budget reports are produced quarterly and published on the MEF’s website, within about eight weeks after the end of the quarter. The information is extracted from the budgeting and accounting information systems (SIGFIP and ASTER). The quarterly budget execution reports are put on the MEF’s website (www.finances.bj). The accounting software (ASTER) has a double way interface with SIGFIP. ASTER has recently been fully decentralized at departmental level to allow timely generation of accounts. Since 2013, all annual accounts are submitted by the Government, within 4 months from the receipt of the financial statements (on time) to account authorities (*Chambre des comptes*). Still, there are some delays in the approval of state accounts (*Comptes de Gestion*) by the Supreme Court (which is outside Government control). For the purpose of the Program, the transfer of budget and funds through the public expenditure channel will be recorded in the country computerized accounting and budget software.

33. According to the 2018 Finances Law, interim financial reports as well as annual financial statements of the Program will be prepared using ANAEPMR accounting and financial reporting systems that are described in the Agency procedures manual. The IFSA revealed that the Agency has not fully implemented its accounting to accommodate the new Program. All the expenditure supporting documents will remain at ANAEPMR for recording of transactions and evidence of

expenditures. ANAEPMR will prepare and submit bi-annually, Interim Financial Reports (IFRs) and annual financial statements. ANAEPMR has made arrangements to extend the accounting software currently being used in the PEPRAU project to the PforR operation.

C3. Procurement processes and procedures.

34. The Program's resource-based procurement will follow the national procedures of Benin. The World Bank and the African Development Bank have conducted the last assessment of the procurement system in 2015. This assessment revealed some weaknesses relating to lack of transparency, lack of efficiency and low capacities. On the basis of recommendations made and within the framework of the transposition of WAEMU Directives, the GoB adopted a new procurement code in 2017. The main issues addressed to improve the procurement system are: (i) separation of the provisions on public procurement from those on public service delegations; (ii) extension of cases of derogation from the Public Procurement Code (*Code des Marchés Publics - CMP*) to take account of recurrent practical difficulties, which include arbitration, conciliation, legal assistance and representation services; financial services relating to the issue, purchase for sale and transfer of securities or other financial instruments, the acquisition in case of stock-outs of essential drugs or products used in emergency medicine or in case of epidemic, etc.; (iii) provisions for the professionalization of the public procurement chain; (iv) strengthening of the public procurement control system through the replacement of Chiefs procurement Control Cell formerly appointed by the contracting authorities by the Public Procurement Control Delegates at the level of the ministries and institutions of the State, attached to the DNCMP; (v) introduction into the regulation of - contracts awarded following unsolicited offers in public contracts; - markets economically or technically complementary to a basic contract concluded in a call for tenders, etc.; (vi) new measures to simplify public procurement procedures by introducing the concept of the exemption threshold and the price solicitation method. These new measures also contribute to enhancing transparency, especially at the level of markets below the award threshold; (vii) reductions in the legal deadlines of public procurement processes, in particular advertising deadlines in the event of a Notice of Expressions of Interest, in case of urgency, deadlines for drafting the contract, approval; and (viii) strengthening of the Public Procurement Regulatory Authority (*Autorité Nationale de Régulation des Marchés Publics – ARMP*) sanctions regime.

35. The open tender procedure is the procurement method used as a matter of principle. This method is mandatory for contracts above a certain threshold. The new thresholds should be increased through the decree of application of the new procurement law. The information and price request procedure and the direct contract option are other methods accepted by the code, under certain conditions. The procurement law stipules that the total amount of contracts concluded through direct contract will not exceed 10 percent of the total amount of the contracts concluded in the year. There is no statistics to prove that this direct contract percentage was respected. It is recommended to conduct all the procurement process through e-Gov (SIGMAP).

36. The use of national standard tendering documents is mandatory for open tender calls. The evaluation criteria must be clearly defined in the tender documents and be used for the evaluation of tenders. All these documents are under revision.in accordance with the new procurement law. In the particular case of procurement under PPP arrangements, the Program will use bidding

documents developed under the subsidized concession pilot (see P132114) with support from the International Finance Corporation (IFC), amended with procurement criteria.

C4. Contract administration.

37. Articles 123 and 124 of the Procurement Code describe the contract performance conditions while article 125 refers to contract cancellation procedures and penalties applied to the different parties. The approach described seems simplified and equitable. The overall capital expenditure payment period is still long and does not comply with the contractual obligations. The direct consequences of the payment delay are that:

- ✓ The tenderers are reticent to participate in tender calls financed through Government funds, the tenders are higher because tenderers justifiably estimate the cost of payment delays and include it in their proposals (rolling stock securement, storage costs, resources on hold and possible bank charges in case of loans and various guarantees);
- ✓ The successful tenderers with limited financial capacities may have to interrupt the works or confiscate the supplies to be delivered pending payment, which can lead to serious delays; and
- ✓ The Contracting Authorities do not apply penalties on ongoing contracts because the State's commitments are not fulfilled and the interests for delayed payments stipulated on the contracts are never paid.

38. The ANAEPMR is newly created and has no past experience in contract management. The recruitment of technical staff who may be in charge of contract management is ongoing. It is strongly recommended to prepare implementing manuals defining the circuits, timelines, supporting documents related to payment operations from a standpoint of prevention and risk management and precise the provision of contract management.

C5. Authority to approve contracts:

39. The Public Procurement Code, in its article 95, empowers the respective supervisory authorities to approve contracts concluded in Government 'budget'. The ANAEPMR is under the supervision of the Presidency. It is recommended to designate the person authorized to approve the contract.

D. Internal Controls

D1. Internal controls (including internal audit)

40. The institutional framework for control is adequate at central government level but the overall performance of institutions of internal control requires additional improvements. According to the 2014 PEFA report, Indicators PI-20 and PI-21 scored C and C+, respectively. Rules of ex ante control of expenditure are in place, but there is duplication of tasks over commitments and payments. The control bodies do not have sufficient human and financial resources, and their capacities remain limited. The mission noted the following weaknesses: (i) the existence of several internal control structures, whose missions and reporting mechanisms overlap, thereby reducing the effectiveness of control mechanisms; (ii) weaknesses in monitoring the

implementation of the recommendations of the control and investigation missions; (iii) limited human resources of several inspection bodies. For example, the IGM of the MEM has 4 professional staff (auditors) and the IGF have fewer than 10 professional staff members. None of the staff of the IGM team has a diploma (e.g. engineer) with practical experiences in hydraulic and sanitation. In addition, modern aspects of the PFM, such as the risk-based approach for internal and external oversight institutions, are not yet in place in all these institutions. It is expected that the internal audit function of ANAEPMR will be fulfilled by an independent audit firm recruited by the BAI. However, the internal auditor of ANAEPMR was not appointed yet at the time of the negotiations.

41. Therefore, inappropriate or misused or inefficient use of the Program funds may not be detected on time or never identified because of the ineffective internal controls systems and weak internal audit bodies. The revision of the legislative framework of internal audit function as well as the increase in the number of staff of these institutions will be critical actions to be considered in a PforR operation.

42. There are some on-going discussions to improve the overall internal control legislative and institutional control arrangements in Benin. A reform of the State Administrative Control Corps is under way. This reform aims to set up Ministerial Risk Management Committees (*Comités Ministériels de Maitrise des Risques - CMMR*) and Internal Audit Committees (*Comités Ministériels d'Audit Interne - CMAI*) and measures to make the IGM and IGF more efficient. However, at the time of Program IFSA, draft texts related to these reforms have not been approved and implemented yet.

43. Therefore, for the purpose of this Program, a Memorandum of Understanding (MoU) will be signed between ANAEPMR and IGF including IGM and DNCMP to conduct periodic internal audit missions. IGF will be the lead to allow the inspections of audit mission of ANAEPMR which is an Agency under the supervision of the Presidency. Each mission will cover six months of Program activities (semester) and will focus on the Program technical, financial and procurement aspects. The MOU will clarify the modality including the due date for submission of the report. A summary of the internal audit reports presented in an agreed format, will be published. A copy of the reports will be shared with Chamber of Accounts.

44. The capacity constraints faced by these institutions of controls (e.g. IGF, IGM) could be addressed through the Program.

D2. Control and integrity

45. ***The procurement control unit:*** In accordance with articles 11, 12 and 15 of the Public Procurement Code, agencies must have respectively the person in charge of Procurement, the procurement commissions and the procurement control units. The head of the procurement control unit must be designated by the DNCMP. The procurement control unit has not been established. It is recommended to establish this procurement unit in accordance with the new law.

46. In Benin, the contract files go through two types of control: Ex ante control and ex post control:

47. **Ex ante control:** The National Public Procurement Directorate (DNCMP), the Departmental Directorate of Procurement (DDCMP) and the Procurement controls (CCMP) are responsible for ex ante control. The DNCMP has been reinforced by 32 agents recruited by the Government as contractual agent. These agents will be trained and nominated as Chief Procurement Control unit in Ministries. The ex-ante control thresholds of contracts are fixed by a decree. The Study on the implementation of investment budgets in West African Economic and Monetary Union (also known by its French acronym, UEMOA) countries, undertaken by the World Bank in 2013 revealed that ex ante review thresholds were low and that this control caused delay in the implementation of budgets. Two key recommendations of this study were: (i) to set timelines for ex ante review; and (ii) to increase the ex-ante review thresholds. Benin has implemented these recommendations and this will be revised in the decree in accordance with the new procurement law. To facilitate this review, the DNCMP prepared a guidance that describe the points of control. This guidance will also be revised.

48. **Ex post control:** Ex post control is the responsibility of the ARMP. According to article 123 of the Public Procurement Code, in addition to its advisory role, the ARMP is also mandated to conduct the annual audits of contracts awarded by all contracting authorities. In practice, the ARMP recruits private firms to audit contracts on an annual basis. But the audits are not regular. For example, the 2015, 2016 and 2017 audits are not done yet. The ARMP is willing to accompany the program if it is provided with more resources and a multiannual program of structures to be audited is defined beforehand.

49. **Citizen control:** Usually citizen control was not instituted. During the discussions, it was revealed that this third level of control could assist the Program significantly, but the Program's implementing agency is yet to be familiarized with the mechanism. The recommendation is that the Program supports the Local Governments through training and mechanisms so as to convince them to develop and organize citizen control.

D3. Complaint management

50. Chapter I and II of title V of the procurement code provide that in Benin, the provider may complain both during the procurement phase and during the contract performance period. During the procurement process, three levels of complaints are possible: (i) appeal to the contracting authority for reconsideration; (ii) contentious appeal to the Dispute Settlement Committee of the ARMP; and (iii) seeking legal remedy before the competent courts.

51. The code provides for three levels of complaints that can be used during the contract performance, namely: (i) amicable settlement; (ii) arbitration; and (iii) the competent administrative courts. ARMP publishes on its web site, all decisions taken by the Dispute Settlement Commission (*Commission de Règlement des Différends* - CRD) on dispute settlement. In the past, there were delays in complaints resolution. But the new procurement law sets a timeframe for complaint resolution. The private sector is confident with the mechanism of complaint.

D4. Program Governance and Anti-Corruption arrangements.

52. *The Government has taken various measures to foster good governance and tackle corruption.* Benin is a signatory to the United Nations Anticorruption Convention. In 2011, an Anti-Corruption Law⁴² was passed which criminalizes fraud, embezzlement, misuse of public funds, influence peddling, party and electoral financing, abuse of public procurement, and nepotism in hiring practices. This legislation foresees stiff penalties, particularly for those in key positions within the Government. In addition to the legislative framework, the Government has also strengthened the institutional framework through the creation of several entities charged with tackling corruption. These include the ARMP, the National Anti-Money Laundering Unit (*Cellule nationale de traitement des information financières*, CENTIF) and the Ombudsman's Office (*Mediateur de la République de Benin*). At the center of the anti-corruption institutional framework is the National Anti-Corruption Authority (*Autorité nationale de la lutte contre la corruption*, ANLC) which was created in 2013⁴³. The effectiveness and performance of these institutions required some improvements. Therefore, the design of the Program has considered additional mechanisms to mitigate fraud and corruption risks as well as increased transparency and accountability in the Program. Further details are provided in the report of the TA.

53. Regarding procurement, article 148 of the Public Procurement Code described the penalties applicable in the event of fraud and corruption related to contracts. The standard procurement documents prepared on the basis of those of the World Bank also contain clauses on fraud and corruption. The ARMP through the Regional Development Committee (CDR) is in charge of applying sanctions.

54. The judiciary is poorly equipped to handle its administrative law and audit review (accounts) functions, which has served over time to reinforce a lack of accountability in the administration. Access to information to online services, which is necessary to hold the executive and public administration to account, is very limited per the 2017 Mo Ibrahim Index of African Governance, Benin's performance on accountability has been uneven, with an overall 10 years decrease of 2.6 (2007-2016) but with slightly positive +0.2 performances during the most recent 5 years' period (2012-2016). Overall, its ranking on accountability has slipped to 26th in the 2017 index, a deterioration from 21st position in 2015 from and 23rd in 2014. Implementation of the asset declaration for key public officials at all levels of Government continues to be weak and uneven, with widespread failure to file declarations. The National Anti-Corruption Agency, charged with enforcement of this and other anti-corruption measures remains relatively weak in terms of enforcement and technical capacities.

55. The 2016 Transparency International Corruption Perception Index ranked Benin the 95th position in the world – a significant deterioration from 83rd and 80th in 2015 and 2014, respectively, though better than some neighboring countries.

56. ANAEPMR is expected to emphasize citizen engagement as an overarching strategy for its Programs. Openness of budget process entails citizens' inputs from public consultations are

⁴² Law 2011-20 of October 12, 2011 on the fight against corruption and other related offenses in the Republic of Benin (*Loi 2011-20 du 12 octobre 2011 portant lutte contre la corruption et autres infractions connexes en République du Bénin.*)

⁴³ Decree n° 2012-336 of 02 October 2012 on attributions, organization and functioning of the National Anti-Corruption Authority (*Décret n° 2012-336 du 02 octobre 2012 portant attributions, organisation et fonctionnement de l'Autorité Nationale de Lutte contre la Corruption*).

reflected in the pre-budget statements. Citizen engagement increases local ownership, enables greater information sharing and transparency, and should be the basis of beneficiary engagement and trust building. However, citizen engagement needs to be supported by institutional capacity and a vision. The following action will be put in place: (i) a Citizen Engagement Committee is established through a MoU between ANAEPMR and civil society to oversee key aspects of the PforR operation; (ii) reports of the sector annual spending (budget execution) will be prepared by the MEM and the Executive Summary published on the ministry website.

57. The PforR will support the development and implementation of Grievance Redressal Mechanisms for the main activities supported by the Program. Thus, under the PAP, tailored Grievance Redressal Mechanisms will be implemented to ensure that stakeholders concerns are documented and resolved in a timely manner.

E. Auditing

58. According to the 2014 PEFA report, improvements were observed in the score of PI-26 and PI-27 compared to the 2012 evaluation. Indicators PI-26 and PI-27 scored D+ and C+, respectively. The improvements are due to the widening of the scope of reviews conducted by the Chamber of accounts as well as the quality of follow up on audit recommendations. The Chamber of accounts meets the internationally defined criteria for independence and the scope of its reviews conforms to the INTOSAI standards. The Supreme Audit Institution (SAI) conducts some performance audits in line with the WAEMU directives. The SAI has judicial power to monitor and sanction irregularities committed by users of the budget as well as the accountants. However, the SAI faces some challenges: (i) inadequate budget allocation to fulfil its mandate; (ii) understaffing with fifteen auditors and three advisors as of December 31, 2017; (iii) capacity of the staff needs some strengthening; and (iv) SAI does not have regional offices. Despite these constraints, the Chamber of accounts has been able to fulfill its mandate, and over the past three years has met the deadline for submitting its report on the draft Settlement Laws to the National Assembly on time.

59. Although this is not required for the proposed Program, SAI's capacity development may focus on the following priority actions: (i) revision of legislative and institutional framework for the SAI to become of a Court of Accounts in line with the PFM acts and WAEMU directives; (ii) increasing SAI's independence through the creation of a budget line and sufficient budget allocations; (iii) increasing the number of staff and capacity of auditors through a program of recruitment and training of young professionals; and (iv) developing staff capacities to conduct performance audits, assessment of Government policy and controls.

60. The texts creating ANAEPMR state that the annual financial statements of the Agency will be audited by a Statutory auditor "*Commissaire aux comptes*" appointed by its Board of Directors. At the time of the assessment, the auditor was not appointed yet.

61. Noting the Program boundary of the Operation, the annual audited financial statements of ANAEPMR, inclusive of the transactions in the DA, the TSSAI and the transaction accounts will be considered as constituting the basis for the annual financial assurance required by the World Bank. The annual audit of the Program will be conducted by the "*Commissaire aux Comptes*".

The audited financial statements of ANAEPMR shall be submitted to the World Bank within six (6) months of the end of government fiscal year. The terms of reference of the mission will be agreed between the World Bank and ANAEPMR. The statutory auditor will be appointed in accordance with applicable public policy

Annex 6: Summary Environmental and Social Systems Assessment

Introduction

1. The ESSA has been conducted by the World Bank as part of the preparation of the Program. The draft ESSA was disclosed to public on April 22, 2018. ESSA reviews the environmental and social management systems of the program to assess their compliance with the provisions of the World Bank's Policy on PforR. ESSA especially identifies and analyzes gaps between national systems and the core principles applying to the program, and recommends actions for improvement aimed at aligning environmental and social management systems on World Bank requirements.

2. To adequately manage inherent risks and promote sustainable development, ESSA focuses on the six Core Principles of the World Bank's Policy, namely: (i) General Principles of Environmental and Social Assessment; (ii) Natural habitats and physical Cultural Resources; (iii) Public and worker Safety; (iv) Land acquisition; (v) Indigenous people and Vulnerable groups; and (vi) Social conflict.

Environmental and Social effects of the Program

3. Activities under the Program will focus on: construction of new drinking water access systems; rehabilitation of existing drinking water access systems; and extension of existing drinking water systems/infrastructure.

4. ***Beneficial environmental and social impacts.*** Program activities will generate major beneficial effects both on the environment and communities (access to drinking water, less hardship in drinking water supply, time savings for women, reduction of waterborne diseases, improvement of living conditions, fight against poverty, reduction of unemployment). Such positive effects are numerous and should be maintained over the long term.

5. ***Limited negative social impacts.*** The investments' negative environmental and social impacts will be limited, low to medium scale, reversible and easily controllable and manageable.

6. ***Diverse negative environmental and social risks.*** During the preparation phase, the main risk is neglect in the preparation of tender documents on environmental and social aspects and their lack of consideration when developing technical studies and/or preparation of unsatisfactory environmental and social studies. During the works phase, several types of environmental and social risks may occur on construction sites: (i) *Environmental risks* linked to: deep excavation; digging of trenches for laying extension and densification pipes; noise nuisances to local residents and construction workers; fairly high level of air pollution; accidents for workers; degradation of the landscape and the communities' living environment; etc; (ii) *Social risks*: Some works may require or result in: acquisition of private land; expropriation for public purposes/involuntary resettlement; temporary physical displacement of household residences or businesses; temporary disruptions to craft and economic activities of individuals and households, causing loss of income; temporary difficulties in accessing housing, shops and other public facilities; specific needs of people with reduced mobility etc.

7. All sub-projects to be funded by the Program will have to be reviewed using an *appropriate screening mechanism*. Environmental and social screening will be conducted for each project to determine the type of planning tool required based on the scale and significance of environmental and social impacts.

8. The environmental monitoring system that will support the operation phase should allow for identifying such malfunctions in real time in order to make any correction required.

Assessment of National Systems

Environmental system

9. In Benin, environmental protection is one of the priority areas in policies designed for sustainable development. Several legal and regulatory texts have thus been adopted. Following the 1990 National Conference, which marked the return to pluralistic democracy and market economy, a clear direction for environmental management was adopted as evidenced by: the inclusion of the principle of environmental protection and management in the constitutional law; the institutionalization of a Ministry of Environment (since 1990) and its technical structures, including the Benin Environmental Agency (1995); the adoption of the Environmental Framework Law (1992); the adoption of the Environmental Action Plan (1993); and the adoption of the National Agenda 21 (1997).

10. Benin has a large legal arsenal for *environmental management*. Among the legislative texts, the most relevant are related to the national environmental policy and water management. These constitutional provisions are reinforced by Benin's international commitments through the ratification of almost all international conventions and agreements on the environment. Key provisions of the Environmental Framework Law in the Republic of Benin make *strategic environmental assessments* (SEA) and EIA mandatory before undertaking developments, operations, facilities, plans, projects and programs or construction of structures.

11. Benin also has an extensive legal framework as regards land tenure and land acquisition and restructuring mechanisms. Other social aspects such as social protection of vulnerable people, labor management, child labor, and abuse on communities living in works implementation site are also addressed. *Benin's Constitution* states that everyone has the right to own property. The State land ownership system is based on acts of 2013, more recently modified in August 2017. The land tenure system in force in the Republic of Benin governs all rural, peri-urban and urban land and is based on a joint procedure for confirming land rights that results in the issuance of a land title.

Adequacy of applicable systems

12. The strengths, weaknesses, threats, and opportunities associated with the national systems are set forth in the light of the Core Principles applicable to the Program - as described in the World Bank Policy and World Bank Directive for Program-for-Results (PforR) funding.

- ***Core Principle 1: General principle of environmental and social impact assessment and management.*** This Principle **applies** to the Program. The ESSA has been prepared and its recommendations have been integrated into the overall Program action plan. In line with

the principles set forth in ESSA, an Environmental and Social Management Plan (ESMP) will be prepared for any individual investment project that the initial diagnostic and screening system set up have deemed to have moderate environmental impact.

- ▶ **Strengths:** Benin has adequate regulatory and legal frameworks. The national EIA system is based on a well-oiled impact assessment process. Responsibilities of the stakeholders are accurately defined.
 - ▶ **Weaknesses:** The institutions in charge lack human and financial means to enforce the legislation.
 - ▶ **Opportunities:** Initiatives to sensitize all actors and stakeholders on Environmental and Social Management issues will be organized. Actions to build the capacities of central and local officers will be initiated to update them on national mechanisms and World Bank PforR arrangements.
 - ▶ **Threats:** Environmental and social management rules and procedures are not implemented adequately. Environmental regulations are not enforced in timely manner.
- **Core Principle 2: Natural habitats and physical and cultural resources.** This Principle **does not apply** to the Program.
 - **Core Principle 3: Public and workers safety apply** to the Program, because construction site workers could be exposed to occupational accidents/injuries, water pollution, air pollution, solid wastes, and toxic or hazardous materials on site. The populations living close to the construction sites could also be exposed to the same hazards.
 - ▶ **Strengths:** The legal/regulatory system of Benin includes construction site safety provisions. There are policies and guidelines on public and worker safety and health.
 - ▶ **Weaknesses:** The national EIA system does not address all aspects of public and worker safety.
 - ▶ **Opportunities:** Information and training on site safety measures.
 - ▶ **Threats:** Inability to enforce current environmental, social, and safety regulations in timely manner.
 - **Core Principle 4: Land acquisition.** This principle **applies** to the Program, because it could: (i) involve temporary physical relocations of resident households or businesses; (ii) require the acquisition of private land, and, as a consequence, expropriation public purposes and involuntary resettlements of resident households or businesses; and (iii) temporarily disrupt local small-scale and economic activities. A Resettlement Action Plan (RAP) will be prepared for any investment sub-project with moderate environmental impact.
 - ▶ **Strengths:** The amount of the allowances or compensation granted to the affected people is set on the basis of the nature and value of the assets.
 - ▶ **Weaknesses:** Customary land ownership is recognized, but needs to be confirmed to receive compensation. Informal property titles are not recognized by the national legislation. There are no formal measures for assisting the resettlement of vulnerable people.

- ▶ **Opportunities:** Ensure a system of compensation in kind and/or cash, depending on the case. Set up a system of assistance to resettlement. Set up a genuine joint administration/civil society mechanism for claims management and monitoring.
 - ▶ **Threats:** Non-compliance with the existing legislation. National and local institutions lack human and financial resources.
- **Core Principle 5: Social considerations: indigenous peoples and vulnerable groups**
This principle **applies** (except that there are no indigenous people in Benin).
 - ▶ **Strengths:** Actions are conducted to inform populations on the implementation of the project and collect their concerns, expectations, and observations; informational posters are displayed to this end in public places. The law provides for the services of an Ombudsman for vulnerable people.
 - ▶ **Weaknesses:** The Benin legislation does not provide for specific measures for vulnerable groups. There is no real claims management system at the local level.
 - ▶ **Opportunities:** Define and set up a sound stakeholder engagement strategy as part of the sensitization program, targeting vulnerable groups more particularly.
 - ▶ **Threats:** Lack of clarity and consistency of the mechanism for implementing public consultations and engaging stakeholders.
 - **Core Principle 6: Social considerations - Social conflict** does not **apply** to the Program.

Environmental and Social Management Action Plan (ESM/AP)

13. The Program will support specific measures to improve the conditions governing the performance of the environmental and social management system in the implementation and monitoring of Program activities. These measures are proposed as part of an **Environmental and social management action plan (ESM/AP)**, which identified three components of recommendations, with each one including distinct and complementary activities.

First component of ESM/AP: Strengthening of the environmental and social management system of Program investments. This component includes the following elements:

- ▶ Preparation and adoption of *GRGES* of investments for the National Rural Water Supply Agency (ANAEPMR) and all technical services.
- ▶ Inter-institutional coordination between ANAEPMR and ABE.

Second component of ESM/AP: Strengthening of the institutional capacities of key actors and representatives of the Program. This component includes two separate types of activities:

- ▶ *Trainings* on the *GRGES* for the stakeholders directly involved in the implementation of Program.
- ▶ *Human Resources* of ANAEPMR for Environmental and Social Management.
- ▶ *Support to municipalities' stakeholders and institutions*

14. All the costs of these elements of the ESM Action Plan will be integrated to the general budget of the Program. The cost of the environmental and social remedial actions will be integrated to the very budgets of the investment sub-projects.

Annex 7: Systematic Operations Risk Rating (SORT)

Risk Category	Rating (H, S, M, L)
1. Political and Governance	Substantial
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	High
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	High
6. Fiduciary	High
7. Environment and Social	Moderate
8. Stakeholders	Moderate
9. Other	N/a
OVERALL	High

Annex 8: Program Action Plan

N°	Action	Completion Measurement	Responsible Agency	Due Date	DLI or Loan Covenant
1. TECHNICAL ACTIONS					
1.1	Technical Assistance for the ANAEPMR is in place	Recruitment of : <ul style="list-style-type: none"> • The Technical Assistant for the preparation of the preliminary designs for the construction, rehabilitation and expansion of rural water supply systems supported by the Program • The Engineering Consulting firm in charge of the detailed design and works supervision for the construction, rehabilitation and expansion of rural water supply systems supported by the Program • The Task Force for the preparation of the bidding documents and support for the recruitment of regional operators 	ANAEPMR	January 31, 2019	Loan Covenant
1.2	Adoption of standardized design parameters and construction standards for rural water supply systems	Preparation and adoption of standardized design parameters and construction standards for rural water supply systems	ANAEPMR	September 30, 2018	Loan Covenant
1.3	Establishment of an information system for rural water supply systems	Establishment at the ANAEPMR of an information system for water supply systems in rural areas with an updated inventory of all the assets and allowing the transmission of operational data	ANAEPMR	June 30, 2019	Loan Covenant
2. FIDUCIARY ACTIONS					
2.1	New Public Procurement Code and compliance of the ANAEPMR with the provisions of the new Public Procurement Code	<ul style="list-style-type: none"> • Adoption and promulgation of application decrees of the new procurement law no 2017-04 dated of October 19, 2017. • Adoption and promulgation of national standard bidding documents in conformity with the new procurement law. • Application of the new Public Procurement Code by the ANAEPMR through: • The establishment of the Procurement Control Unit (Cellule Contrôle des 	ARMP / BAI / ANAEPMR	90 days after Program's effectiveness	Loan Covenant

N°	Action	Completion Measurement	Responsible Agency	Due Date	DLI or Loan Covenant
		Marchés Publics-CCMP) within ANAEPMR • The formal designation of the person in charge of approving the contracts of ANAEPMR			
2.2	Conducting the procurement process through SIGMAP	Maintaining the entire procurement process through the SIGMAP system during the implementation of the Program	ANAEPMR	Throughout the implementation of the Program	Loan Covenant
2.3	Public Procurement Audit of the Ministry in charge of the Water Sector	(i) Conduct an audit by the ARMP of the Public Procurement of the Ministry in charge of the water sector, including ANAEPMR; (ii) Procurement audit reports are submitted to the World Bank within the agreed period and published on the ARMP website.	ARMP / ANAEPMR	Every two years from the second year of implementation of the Program	Loan Covenant
2.4	Annual preparation of the Procurement Plan	Annual preparation of the procurement plan of the Ministry in charge of the water sector to accompany its general budget	DPP Ministry in charge of the water sector /ANAEPMR	Every year	Loan Covenant
2.5	Internal audit and internal control	Signature of a MoU between ANAEPMR and IGF as leader of the IGM and the DNCMP for conducting joint bi-annual inspection missions covering the operational, financial and procurement aspects	ANAEMPR / BAI / IGF	180 days after effectiveness	Loan Covenant
3. ENVIRONMENTAL AND SOCIAL ACTIONS					
3.1	Guidelines for Social and Environmental Management (GRGES)	(i) Preparation and adoption of a GRGES that will include the following as a minimum: • Procedure for the screening of sub-projects • Procedure for the elaboration of Environmental and Social Impact Studies (ESIA) • Procedure for the elaboration of social assessment and RAP • Procedure for land acquisition • Standard elements (environmental and social clauses, minimum staff, price item template) for the contracts of (i) works contractors, (ii) engineering consultant, (iii) regional private operators • Grievance Redress Mechanism • Citizen engagement mechanism	ANAEPMR in collaboration with ABE	90 days after Program's effectiveness	Loan Covenant

N°	Action	Completion Measurement	Responsible Agency	Due Date	DLI or Loan Covenant
		(ii) Development of a training program for the application of the GRGES for the various stakeholders involved in the implementation of the Program: <ul style="list-style-type: none"> • Staff of ANAEPMR, ABE, ANDF, Departmental Directions MoE, MCVDD, municipalities, ACEP • Works contractors and engineering consultant • Piped rural water supply systems' operators 		90 days after adoption of the GRGES	
3.2	Interinstitutional coordination ANAEMPR - ABE	Signing of an interinstitutional agreement between ANAEPMR and the ABE for the issuance of environmental certification in accordance with the timeframe defined in the decree n° 2017-332 of the 06 July 2017	ANAEPMR and ABE	90 days after Program's effectiveness and throughout Program implementation	Loan Covenant
3.3	Human Resources of ANAEPMR for Environmental and Social Management	Maintain at least one social specialist and one environmental specialist within ANAEPMR who are employed full-time throughout the implementation of the Program and have: <ul style="list-style-type: none"> • Basic training in environmental and / or social sciences • A minimum of one year of experience in conducting similar programs / projects in the drinking water supply sector 	ANAEPMR	After Program's effectiveness and throughout Program implementation	Loan Covenant
3.4	Support to municipalities for land management	Provision of Technical Assistance to the municipalities for the creation of the Village Committees for Land Management (<i>Structures Villageoises de Gestion Foncière - SVGF</i>) in charge of identifying the sites for construction works under the Program and facilitate compensation for land acquisition whenever required.	ANAEPMR	Before the works start	Loan Covenant

Annex 9: Implementation Support Plan

1. The implementation of the Benin Rural Water Supply Universal Access Program will require a substantial support from the World Bank’s Task Team especially during its first year. There is a need for the World Bank to work closely with the ANAEMPR and other involved stakeholders given the ambitious scope of the Program both in terms of expanding access and implementing reforms for service quality and sustainability.

2. Particular emphasis of the implementation support will be on reviewing implementation progress (including that of the Program Action Plan) and achievement of Program results and DLIs, providing proactive support on resolving emerging Program implementation issues, monitoring compliance with legal agreements, supporting the Government in monitoring changes in risks.

Main focus of Implementation Support

<i>Time</i>	<i>Strategic Focus</i>
<i>Throughout the Program implementation</i>	<ul style="list-style-type: none"> • Provide comprehensive technical support to pro-actively identify implementation bottlenecks or support the GoB to solve existing implementation issues • Review the Program implementation progress with respect to the Results Framework and DLIs • Review the implementation of the recurrent actions of the Program Action Plan • Assist the GoB to develop a communication strategy around the implementation of the Program
<i>Year 1-2</i>	<ul style="list-style-type: none"> • Review and support the finalization of the Program Operational Manual • Review and support the hiring of the Independent Verification Agent • Review the implementation of the actions of the Program Action Plan that need to be executed during the early stage of the Program • Review the compliance with the legal covenants associated with the effectiveness of the operation
<i>Years 2-6</i>	<ul style="list-style-type: none"> • Assist the GoB in the preparation of mid-term evaluation of the Program and in the identification of possible restructuring actions • Assist the GoB in capturing lessons learned from the Program implementation

Resources and Task Team Skills Mix Requirements for Implementation Support

3. The Task Team will closely work with the ANAEMPR and other stakeholders involved in the implementation undertaking joint and periodic supervision missions, including field visits in accordance with the planning below:

- Year 1-2: four supervision missions, including one between approval and effectiveness
- Years 3-6: three supervision missions each year

The Task Team will provide a comprehensive package of technical support for the GoB throughout the implementation. Skills needed are listed below.

<i>Core Skills Needed for Supervision</i>	<i>Other Skills Needed based on specific Demand or Issue</i>
<ul style="list-style-type: none"> • Rural water supply institutional specialist • Rural water engineer • Environmental specialist • Social specialist • Communication specialist • Procurement specialist • Financial management specialist 	<ul style="list-style-type: none"> • Anti-corruption and governance specialist • Lawyer • Disbursement specialist • Financial analyst and economist

Annex 9: Map

