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Report No: PAD1792

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT PAPER

ON

A PROPOSED ADDITIONAL CREDIT

IN THE AMOUNT OF SDR 21.20 MILLION
(US\$30 MILLION EQUIVALENT),

A PROPOSED ADDITIONAL GRANT

IN THE AMOUNT OF SDR 14.20 MILLION
(US\$20 MILLION EQUIVALENT)

AND

A PROPOSED RESTRUCTURING

TO THE

REPUBLIC OF MALI

FOR AN

URBAN WATER SUPPLY PROJECT
(FORMERLY BAMAKO WATER SUPPLY PROJECT)

JUNE 7, 2016

Water Global Practice
Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2016)

Currency Unit = CFA Franc (CFAF)
CFAF 578 = US\$1
US\$1.41733 = SDR 1

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
AFD	French Development Agency (<i>Agence Française de Développement</i>)
CPF	Country Partnership Framework
CREE	Electricity and Water Regulatory Commission (<i>Commission de régulation de l'électricité et de l'eau</i>)
DA	Designated Account
DCI	Ductile Cast Iron
DFC	SOMAPEP's Accounting and Financial Department (<i>Direction Financière et Comptable</i>)
DN	Nominal Diameter (<i>diamètre nominal</i>)
DPI	SOMAPEP's Planning and Investments Department (<i>Direction de la Planification et des Investissements</i>)
EIB	European Investment Bank
EIRR	Economic Internal Rate of Return
EOPT	End-of-Project Target
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EU	European Union
FIRR	Financial Internal Rate of Return
FM	Financial Management
GRS	Grievance Redress Service
IFR	Interim Financial Report
M&E	Monitoring and Evaluation
NPV	Net Present Value
NRW	Non-Revenue Water
PAD	Project Appraisal Document
PDO	Project Development Objective
P _e	Operating Company's remuneration (<i>prix exploitant</i>)
P _p	Assets-Holding Company's remuneration (<i>prix patrimoine</i>)

PSP	Private Sector Participation
RPF	Resettlement Policy Framework
SOMAGEP	Malian Water Operating Company (<i>Société Malienne de Gestion de l'Eau Potable</i>)
SOMAPEP	Malian Water Assets Holding Company (<i>Société Malienne de Patrimoine de l'Eau Potable</i>)
UWS	Urban Water Supply
WTP	Water Treatment Plant

Regional Vice President:	Makhtar Diop
Country Director:	Paul Noumba Um
Senior Global Practice Director:	Jennifer J. Sara
Practice Manager:	Alexander E. Bakalian
Task Team Leader:	Madio Fall

MALI
URBAN WATER SUPPLY PROJECT – ADDITIONAL FINANCING
FORMERLY BAMAKO WATER SUPPLY PROJECT

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ADDITIONAL FINANCING DATA SHEET

Mali

*Urban Water Supply Project - Additional Financing (P157438)
Formerly Bamako Water Supply Project*

AFRICA

Basic Information – Parent							
Parent Project ID:		P122826		Original EA Category:		B - Partial Assessment	
Current Closing Date:		31-Dec-2018					
Basic Information – Additional Financing (AF)							
Project ID:		P157438		Additional Financing Type (from AUS):		Scale Up	
Regional Vice President:		Makhtar Diop		Proposed EA Category:		B - Partial Assessment	
Country Director:		Paul Noumba Um		Expected Effectiveness Date:		30-Oct-2016	
Senior Global Practice Director:		Jennifer J. Sara		Expected Closing Date:		31-Dec-2021	
Practice Manager/Manager:		Alexander E. Bakalian		Report No:		PAD1792	
Team Leader(s):		Madio Fall					
Borrower							
Organization Name		Contact	Title	Telephone		Email	
Republic of Mali		Mr. Boubou Cisse	Minister of Economy and Finance	(223) 20 22 58 58		natomin2008@gmail.com	
Project Financing Data - Parent (Bamako Water Supply Project - P122826) (in US\$, millions)							
Key Dates							
Project	Ln/Cr/TF	Status	Approval Date	Signing Date	Effectiveness Date	Original Closing Date	Revised Closing Date
P122826	IDA-53170	Effective	21-Nov-2013	23-Dec-2013	03-Jun-2014	31-Dec-2018	31-Dec-2018

Disbursements									
Project	Ln/Cr/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Un-disbursed	% Disbursed
P122826	IDA-53170	Effective	XDR	52.20	52.20	0.00	9.85	42.35	18.86
Project Financing Data - Additional Financing Urban Water Supply Project - (Formerly Bamako Water Project) (P157438) (in US\$, millions)									
<input type="checkbox"/>	Loan	<input type="checkbox"/>	Grant	<input checked="" type="checkbox"/>	IDA Grant				
<input checked="" type="checkbox"/>	Credit	<input type="checkbox"/>	Guarantee	<input type="checkbox"/>	Other				
Total Project Cost:		50.00		Total Bank Financing:		50.00			
Financing Gap:		0.00							
Financing Source – Additional Financing (AF)								Amount	
BORROWER/RECIPIENT								0.00	
International Development Association (IDA)								30.00	
IDA Grant								20.00	
Total								50.00	
Policy Waivers									
Does the project depart from the CAS in content or in other significant respects?							No		
Explanation									
Does the project require any policy waiver(s)?							No		
Explanation									
Team Composition									
Bank Staff									
Name	Role	Title	Specialization	Unit					
Madio Fall	Team Leader (ADM Responsible)	Senior Water & Sanitation Specialist	Water & Sanitation	GWA07					
Mahamadou Bambo Sissoko	Procurement Specialist (ADM Responsible)	Senior Procurement Specialist	Procurement	GGO07					
Jean Charles Amon Kra	Financial Management Specialist	Senior Financial Management Specialist	Financial Management	GGO13					
Abdoul' Ganyi Bachadi Alidou	Safeguards Specialist	Consultant	Environment	GTI05					

Aissatou Diallo	Team Member	Senior Finance Officer	Financing	WFALA
Aoua Toure Sow	Team Member	Program Assistant	Support	AFCW3
Cheikh A. T. Sagna	Safeguards Specialist	Senior Social Development Specialist	Social Safeguards/Development	GSU01
Issa Thiam	Team Member	Finance Analyst	Financing	WFALA
Matar Fall	Team Member	Lead Water and Sanitation Specialist	Water	GWA07
Mohamed Nanzoul	Team Member	Senior Infrastructure Specialist	Water	GWA07
Nneoma Veronica Nwogu	Counsel	Senior Counsel	Legal	LEGAM
Pierre Francois Xavier Boulenger	Team Member	Senior Water and Sanitation Specialist	Water	GWA07
Richard Verspyck	Team Member	Consultant	Economics and Finance	GWA07
Ruxandra Costache	Counsel	Senior Counsel	Legal	LEGAM
Tahirou Kalam	Team Member	Financial Management Specialist	Financial Management	GGOPS
Veronique Verdeil	Team Member	Water and Sanitation Specialist	Water	GWA07

Extended Team

Name	Title	Location

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Mali		Bamako		X	Original project
Mali	Kayes	Kita	X		AF
Mali	Sikasso	Bougouni	X		AF
Mali	Sikasso	Selingue	X		AF
Mali	Kayes	Nioro	X		AF
Mali	Segou	Markala	X		AF
Mali	Gao	Gao	X		AF

Institutional Data				
Parent (Bamako Water Supply Project - P122826)				
Practice Area (Lead)				
Water				
Contributing Practice Areas				
Cross Cutting Topics				
[] Climate Change				
[] Fragile, Conflict & Violence				
[] Gender				
[] Jobs				
[] Public Private Partnership				
Sectors / Climate Change				
Sector (Maximum 5 and total % must equal 100)				
Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Water, sanitation and flood protection	Water supply	96		
Public Administration, Law, and Justice	Public administration-Water, sanitation and flood protection	4		
Total		100		
Themes				
Theme (Maximum 5 and total % must equal 100)				
Major theme	Theme	%		
Urban development	Urban services and housing for the poor	52		
Urban development	City-wide Infrastructure and Service Delivery	48		
Total		100		
Additional Financing (Urban Water Supply Project - Additional Financing Formerly Bamako Water Project - P157438)				
Practice Area (Lead)				
Water				
Contributing Practice Areas				
Cross Cutting Topics				

- Climate Change
- Fragile, Conflict & Violence
- Gender
- Jobs
- Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Water, sanitation and flood protection	Water supply	96		
	Public administration- Water, sanitation and flood protection	4		
Total		100		

I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Urban development	Urban services and housing for the poor	52
	City-wide Infrastructure and Service Delivery	48
Total		100

Consultants (Will be disclosed in the Monthly Operational Summary)

Consultants Required? Consultants will be required

I. Introduction

1. This Project Paper seeks the approval of the Executive Directors to (a) provide an additional grant in the amount of SDR 14.20 million (US\$20 million equivalent) and an additional credit in the amount of SDR 21.20 million (US\$30 million equivalent) to the Republic of Mali for the proposed Urban Water Supply Project; and (b) restructure the original Bamako Water Supply Project (P122826, Credit No. 5317-ML).

2. **The proposed Additional Financing (AF) will help finance the costs associated with scaled-up activities to enhance the impact of a well-performing project.** The proposal also includes a restructuring, which will involve an extension of the project closing date and a revision of the project development objective (PDO), project legal name, and Results Framework, as well as the triggering of an additional safeguards policy.

3. **The activities proposed under the AF are aligned with the current PDO “to increase access to sustainable water services,” albeit with a different geographical scope.** The Government requested to expand project activities to six urban centers outside the capital city, Bamako, which was the sole target of the original project. Therefore, the PDO will be amended to reflect this change, as follows: *to increase access to sustainable water services in selected urban areas*. Consequently, the project legal name will be amended from *Bamako Water Supply Project* to *Mali: Urban Water Supply Project*.

4. The AF will enhance the impact of the original project by providing access to improved water sources to approximately 320,000 additional people, increasing the project outcome target by 82 percent, and overall improve the number of direct beneficiaries by 58 percent. The proposed additional activities are similar in nature to those of the original project. They will not generate any additional environmental and social safeguards risks or impacts that will require a change in the project safeguards category (B). An additional implementation period of three years will be required to implement the additional activities and achieve the revised PDO.

5. **All AF activities will be financed entirely by the proposed additional grant and credit.** No co-financing from the Government or from multilateral or bilateral agencies is foreseen.

II. Background and Rationale for Additional Financing

Country and Sector Context

6. **Mali is one of the poorest countries in the world.** The country is vast, landlocked, and geographically diverse, with a population of approximately 14.9 million people. Despite a drop in the incidence of poverty before the 2012 crisis, from 60 to 51 percent between 2000 and 2010, the rapid demographic growth, economic and social inequalities, and growing insecurity are still driving Mali’s fragility and limiting the impact of poverty-reduction programs. Mali was ranked 176 in the 2015 Human Development Index. The economy is predominantly rural and informal, with 73 percent of the population residing in rural areas and 80 percent of jobs in the informal sector. The country can be divided along a north-south axis, with large northern regions extending into the Sahara and Sahel and the South accounting for the majority of economic activity, as well as food and cash crop production, because of higher rainfall levels and more fertile land. The formal sector is largely located in the capital, Bamako, and is highly concentrated.

7. **Since 2013, the political and security situation has improved significantly.** In early 2012, the vast northern regions fell under the control of extremist forces, while a coup d'état in Bamako threw the country into political instability and turmoil. A strong international military response in early 2013 prevented further destabilization, though part of the North remains outside government control and insecurity has spread to Bamako and the South. The signing of a peace agreement in June 2015 has revived hopes for peace and stability. It is a promising development for the country, and the country anticipates support from the Bank and other partners to identify immediate and longer-term recovery and development priorities, as well as to assist in their implementation.

8. **Whereas the country still faces significant political and social challenges, the macroeconomic outlook appears positive.** Favorable external factors such as a low CFAF exchange rate and declining oil prices are expected to be growth conducive. After peaking at 7.2 percent in 2014, the growth of the gross domestic product should progressively return to a steady state. The main drivers of domestic activity over the next three years are expected to be the primary and tertiary sectors. However, Mali will continue to be exposed to security and climatic shocks, with limited space to mitigate them, except through cuts in public investments in the context of the West Africa Economic and Monetary Union.

9. **At the time of the original project's design, the development of Mali's urban water supply (UWS) subsector had been constrained by an investment backlog and an inefficient institutional framework.** The early termination of the urban electricity and water concession arrangements in 2005 and limited external financial support had put the development of water services on hold. The access rate of the urban population to piped water was 75 percent in 2012, and the connection rate was only 40 percent. Therefore, the Government initiated an institutional reform of the UWS subsector by formally separating electricity and water services—that were previously vested into a single utility—and creating two urban water agencies: (a) an assets-holding company (*Société Malienne de Patrimoine de l'Eau Potable*, SOMAPEP), in charge of managing and developing UWS assets; and (b) an operating company (*Société Malienne de Gestion de l'Eau Potable*, SOMAGEP), in charge of delivering water services. SOMAPEP, SOMAGEP, and the Government agreed to be bound by performance-oriented contractual instruments that were extensively discussed with the Bank. Although both agencies remain public enterprises, the contracts are similar to the ones that govern public-private partnerships established in other countries in the sub-region.

10. **External assistance to the UWS subsector resumed soon after the sector reform was formulated.** Donors' interventions were initially devoted to Bamako, which faced severe water shortages and rapid urban expansion and supported a comprehensive investment program named 'the Kabala Project' that aimed to double the water production capacity and to expand water storage and transmission and the distribution network. Addressing the needs of the capital city in a financially sustainable way was expected to provide the foundation for implementing sector reforms that would later support the expansion of urban water services throughout the country.

11. **Access to urban sanitation is limited.** According to the World Health Organization and the United Nations Children's Fund Joint Monitoring Program, the access rate to improved sanitation in urban areas is only 38 percent. As part of the Kabala Project, the African Development Bank is financing a sanitation master plan for Bamako, a nationwide institutional

framework/policy, and a tariff study for sanitation. The Government, through the Ministry of Environment and Sanitation, is financing sanitation master plans for eleven secondary urban centers, including the six urban centers that will be targeted by the AF.

12. **The original project represented IDA's contribution to the Kabala Project.** At the Government's request, it focused on (a) addressing the water shortages that affected the poorest communities on the right bank of the Niger River where annual population growth rates exceeded six percent, and (b) supporting the implementation of the sector reform and strengthening the capacities of the sector actors.

Original Project Features and Performance

13. **The IDA credit of SDR 52.2 million (US\$80 million equivalent) for the Bamako Water Supply Project was approved on November 21, 2013.** The Financing and Project Agreements were signed on December 23, 2013, and became effective on June 3, 2014. The original PDO of increasing access to sustainable water services in Bamako was intended to be achieved through: (a) expanding water transmission, storage, and distribution capacities, and facilitating access to services through programs for constructing social water connections and public standposts; and (b) supporting the implementation of the UWS subsector reform and strengthening capacities to deliver and manage services. Sustainability would be strengthened through improving the quality and continuity of water services and maintaining the financial autonomy of the sector. The project included three components, which are implemented by SOMAPEP:

- (a) **Component A - Water Storage and Transmission (US\$48.68 million).** This component aims to ensure that the additional water production capacity (financed in parallel by the European Investment Bank (EIB), the French Development Agency (*Agence Française de Développement*, (AFD), and the European Union (EU)) would be delivered to urban neighborhoods to meet demand and improve the quality of services for existing customers through: (i) the expansion of the water storage infrastructure by 20,000 m³ with the construction of two water storage tanks; and (ii) the provision and installation of about 13 km of water transmission mains.
- (b) **Component B - Water Distribution (US\$28.07 million).** This component aims to increase access to water services of residents of the right bank of the Niger River by: (i) expanding the water distribution networks by about 597 km; and (ii) installing 30,000 social household connections and 300 standposts.
- (c) **Component C - Institutional Strengthening and Capacity Building (US\$3.25 million).** This component aims to facilitate the implementation of the sector reform and the compliance with the regulatory framework through: (i) institutional support to the UWS subsector institutions; (ii) capacity-building assistance for SOMAPEP, SOMAGEP, the Electricity and Water Regulatory Commission (*Commission de régulation de l'électricité et de l'eau*, CREE), and the staff of the Ministry of Electricity and Water involved in sector reform and development of regulatory skills;

and (iii) environmental and social management of the project and capacity building for safeguard requirements.

14. Since its inception, the project's progress has been rated Satisfactory on the achievement of the PDO and Satisfactory or Moderately Satisfactory on implementation progress. The relatively modest disbursement rate (18.2 percent) is a consequence of the efficient procurement of works under Component A, which has attracted strong competition. The award of contracts generated important cost savings that the Government is intending to reallocate to further expand the activities financed under the original credit. Works execution started in January 2015 and is progressing satisfactorily, although project implementation has not yet resulted in measurable changes of the access outcome indicators or of the intermediate output results. Procurement and financial management (FM) and social safeguards are rated Moderately Satisfactory. The implementation of the original project has complied with the Resettlement Policy Framework (RPF), albeit with some delay that has impacted the pace of work progress. SOMAPEP's safeguards team is being strengthened to address the weaknesses identified in terms of compliance with environmental safeguards and the performance has been improving. There is no financial audit pending and the project comply with the due covenants.

15. **The support to sector reform is satisfactorily implemented and the sector has maintained its financial equilibrium.** However, the financial equilibrium remains fragile due to government's water bill arrears that are about to be cleared on the basis of a mechanism put in place since January 2016. The concession, lease (affermage), and performance contracts were signed and became effective shortly before the approval of the original project. They are satisfactorily implemented. SOMAGEP's operating performances have significantly improved since the inception of the reform and are nearing the ones observed in the best-managed utilities of the sub-region. SOMAPEP has maintained its financial equilibrium since 2013. However, the implementation of the regulatory framework encountered some problems, with the late finalization of the sector's financial model by CREE and the resulting uncertainties on the determination of the revenue sharing of water tariffs between SOMAGEP and SOMAPEP. Since then, CREE has developed three scenarios for tariff revisions (see Annex 5 for details). SOMAPEP is recruiting the technical auditors who will be in charge of assessing the execution of the reform, including the regulatory aspects.

Rationale for the Additional Financing

16. The Government requested the AF in view of the following:

- (a) There is a pressing need to reduce the country's regional disparities in access to basic services, including urban water services, which were exacerbated by the conflict.
- (b) There is a backlog of water investments in secondary centers that left the water facilities of the targeted cities in a situation of advanced disrepair and in need of improving access to safe water resources; and
- (c) Works for the Kabala project in the right bank of the Niger River in Bamako were initially planned in two separate phases. Savings in the procurement process could enable SOMAPEP to implement immediately the second phase and reallocate funds

to cover the left bank of the Niger River in Bamako. This would enable planning donors' interventions in secondary centers sooner than expected.

17. **Preliminary discussions between the Government and the Bank about an intervention in secondary urban centers led to focusing on six centers.** Bougouni, Gao, Kita, Markala, Nioro, and Sélingué face critical water shortages and acute production deficiencies and exhibit below-average water access rates (details on current coverage and deficiencies are provided in Annex 2). Technical studies financed by the Government of Mali are already ongoing for these centers to expedite implementation. The total population of the six centers was estimated at 460,000 people in 2015, that is, about 25 percent of the urban population that is currently supplied by SOMAGEP outside of Bamako.

18. **In view of the available financial envelope, the Government wishes to concentrate the AF's efforts on UWS,** pending the completion of the sanitation master plans in the targeted centers.

Response to Access, Sustainability, and Social Challenges

19. The AF will address the challenges deriving from the population growth and the current conditions of water services in the targeted centers by (a) rehabilitating and expanding water production facilities and eliminating bottlenecks in water storage and transmission to restore the continuity and quality of services in areas suffering from water shortages and insufficient water pressure; and (b) providing affordable access to services through subsidized social connections programs and the installation of standposts. A detailed presentation of the challenges faced by the targeted centers and solutions that the AF activities will propose to address them is provided in Tables 2.1 to 2.3 of Annex 2.

20. The AF offers an opportunity to promote social inclusion and foster accountability through citizen engagement. In that respect, it is proposed to (a) increase the beneficiaries' access to information regarding their rights and responsibilities concerning their access to water (particularly on their inclusion in social connections and standposts programs); and (b) develop a beneficiary feedback mechanism during project implementation and provide the different types of beneficiaries—including marginalized groups and women—the opportunity to voice their feedback.

Summary Description of AF Activities

21. **The activities financed by the proposed AF will be grouped under a new “Component D: Water Supply in Secondary Centers”,** as summarized below and detailed in Annex 2.

- (a) **Rehabilitating and expanding production, storage, and transmission facilities in selected urban centers (US\$15.82 million)** to increase water availability and quality through, inter alia, (a) rehabilitating existing raw water intakes and ancillary facilities, water treatment plants (WTPs), boreholes, water storage tanks, and transmission pipes; (b) increasing water production capacity by constructing raw water intakes and pumping stations, expanding and constructing WTPs, and drilling and equipping new boreholes with connection pipes to collect ground water; (c) increasing water storage

capacity by constructing elevated water storage tanks; and (d) provision of goods related for the purpose.

- (b) **Increasing access to safe water in selected urban centers (US\$30.26 million)** through the provision and installation of primary, secondary, and tertiary water distribution pipes and provision and installation of 20,000 household water service connections and standposts.
- (c) **Support to the recipient (US\$3.92 million)** in the areas of: (a) supervision; and (b) assistance to the implementation of the safeguard instruments, including through the provision of technical assistance, goods and services for the required purpose.

22. The costs of the detailed activities are provided in Annex 3. Total AF requirements are estimated at US\$50.00 million, inclusive of price and physical contingencies, which will be entirely funded by the IDA grant of SDR 14.20 million (US\$20 million equivalent) and the IDA credit of SDR 21.20 million (US\$30 million equivalent).

23. **The components of the original project will not be modified under the AF, but a further restructuring of the original project components could take place in early 2017 once the cost savings of the Bamako works are fully documented, that is, once all the major works contracts are awarded.** This restructuring will, among others, enable an increase of the allocation of Component C (Institutional Strengthening and Capacity Building) to finance: (a) strengthening the capacity of SOMAPEP with regard to procurement and contract management; (b) supporting citizen engagement and gender, as well as any other social activities; and (c) possible collaboration and capacity building with local learning institutions.

Consistency with the Country Partnership Framework and World Bank Poverty Goals

24. **The proposed AF is formally identified in the current Country Partnership Framework (CPF) for the fiscal years 2016–2019** (Report No. 94005-ML), which was approved by the Executive Directors on December 10, 2015. Responding to the Government’s Plan for the Sustainable Recovery of Mali (2013–2014) and the Government Action Plan (2013–2018) that are intended to take into account the new challenges that emerged during the multidimensional crisis that affected Mali, the CPF addresses the drivers of Mali’s fragility, with a strong focus on governance and proposes orientations for the World Bank Group engagement around three areas of focus: (a) improve governance, by strengthening public resource management and fostering citizen engagement; (b) create economic opportunities, by enhancing the productive capacity of smallholders and improving basic services by developing infrastructure and connectivity; and (c) build resilience, by developing human capital, strengthening safety nets, improving risk management mechanisms for the poor and vulnerable, and mitigating climate shock. The proposed AF activities are fully aligned with the second pillar of the CPF, as well as with the gender cross-cutting theme promoting gender-sensitive inclusion at the local and community levels. The proposed AF activities will help enable all population strata to gain affordable access to safe water by providing water connections at subsidized costs to 20,000 poor households and by improving services in urban centers where their quality has significantly deteriorated. The proposed AF will thus contribute to reduce social tensions, address regional disparities and contribute to the World Bank Group goals of reducing poverty and boosting shared prosperity in a sustainable manner.

25. **The AF is the preferred financing mechanism**, because it would: (a) save time associated with the project preparation process while maintaining the positive momentum of the results achieved to date; (b) capitalize on the current effective implementation arrangements that have generated satisfactory results under the original project; and (c) complement the timely and effective interventions of other development partners, as most sector donors have concentrated their efforts in Bamako.

III. Proposed Changes

Summary of Proposed Changes	
<p>The changes associated with the AF and project restructuring comprise modifications to the original (a) PDO formulation; (b) scope of activities; (c) Results Framework; (d) closing date; (e) legal name of the project; and (f) safeguard policies triggered.</p> <p>The name of the project and the PDO will be amended to reflect the expansion of the geographical scope of the project outside of Bamako.</p> <p>The proposed AF will finance activities to maximize the development impact of the original project by (a) constructing water production, storage, and pumping facilities and primary distribution networks to improve the delivery of water in urban centers where the quality of services has deteriorated; and (b) providing access to water services through social water connections and standposts in unserved areas.</p> <p>The Results Framework will be adjusted to take into account the impact of the proposed AF activities.</p>	
Change in Implementing Agency	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change in Project's Development Objectives	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Change in Results Framework	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Change in Safeguard Policies Triggered	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Change of EA category	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Other Changes to Safeguards	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change in Legal Covenants	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change in Loan Closing Date(s)	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Cancellations Proposed	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change in Disbursement Arrangements	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Reallocation between Disbursement Categories	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change in Disbursement Estimates	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Change to Components and Cost	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Change in Institutional Arrangements	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change in Financial Management	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Change in Procurement	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Change in Implementation Schedule	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Other Change(s)	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Development Objective/Results	
Project's Development Objectives	
Original PDO	

The overall objective of the proposed project is to increase access to sustainable water services in Bamako.

Change in Project's Development Objectives

Explanation:

The PDO will be amended to reflect the expansion of the geographical scope of the project to six secondary urban centers.

Proposed New PDO - Additional Financing (AF)

The objective of the Project is to increase access to sustainable water services in selected urban areas within the Recipient's territory.

Change in Results Framework

Explanation:

The end-of-project target (EOPT) of several current outcome and output indicators will be adjusted to reflect the impact of the AF activities. In addition, new intermediate indicators will monitor citizens' engagement and the increase of water production capacity in the secondary centers.

Compliance

Change in Safeguard Policies Triggered

Explanation:

OP/BP4.11: Physical Cultural Resources

As most of the activities to be undertaken will involve excavations with possible discoveries of physical cultural resources, this policy is triggered in order to anticipate and to ensure that all the precautions have been taken to protect and safeguard physical cultural resources.

No specific standalone instrument on physical cultural resources is required; rather, chance find procedures and clauses will be inserted in each civil work contract to properly comply with the policy requirement during project implementation.

Current and Proposed Safeguard Policies Triggered:	Current(from Current Parent ISDS)	Proposed (from Additional Financing ISDS)
Environmental Assessment (OP) (BP 4.01)	Yes	Yes
Natural Habitats (OP) (BP 4.04)	No	No
Forests (OP) (BP 4.36)	No	No
Pest Management (OP 4.09)	No	No
Physical Cultural Resources (OP) (BP 4.11)	No	Yes
Indigenous Peoples (OP) (BP 4.10)	No	No
Involuntary Resettlement (OP) (BP 4.12)	Yes	Yes
Safety of Dams (OP) (BP 4.37)	No	No
Projects on International Waterways (OP) (BP 7.50)	Yes	Yes
Projects in Disputed Areas (OP) (BP 7.60)	No	No

Covenants - Additional Financing (Urban Water Supply Project - Additional Financing, Formerly Bamako Water Supply Project - P157438)

Source of Funds	Finance Agreement Reference	Description of Covenants	Date Due	Recurrent	Frequency	Action
IDA	Sch 2; Section V	The Recipient shall ensure that, no later than five (5) months after the Effective Date, SOMAPEP shall have appointed an external financial auditor for the Project under terms of reference and qualifications, and with experience satisfactory to the Association	30-Mar-2017	<input type="checkbox"/>		New

Conditions

Source Of Fund	Name	Type
IDA	Subsidiary Agreement	Effectiveness

Description of Condition

Article V, 5.01 (b) The Subsidiary Agreement under the Original Project has been revised in accordance with Schedule 2. Section I. B with terms and conditions satisfactory to the Association, to cover the execution of the additional activities to be carried out under the Project.

Source Of Fund	Name	Type
IDA	Subsidiary Agreement	Effectiveness

Description of Condition

Article V, 5.02 (a) The revised Subsidiary Agreement has been duly authorized or ratified by the Recipient and the Project Implementing Entity and is legally binding upon the Recipient and the Project Implementing Entity in accordance with its terms.

Source Of Fund	Name	Type
IDA	Project Agreement	Effectiveness

Description of Condition

Article V, 5.02 (b) The Project Agreement has been duly authorized or ratified by the Project Implementing Entity and is legally binding upon the Project Implementing Entity in accordance with its terms.

Source Of Fund	Name	Type			
IDA	Project Steering Committee	Effectiveness			
Description of Condition					
Article V, 5.01 (a) The Project Steering Committee has been updated in accordance with Section I.A.2 of Schedule 2: Recipient shall update and thereafter maintain, at all times during the implementation of the Project, the Project Steering Committee with a mandate, composition and resources satisfactory to the Association.					
Risk					
Risk Category	Rating (H, S, M, L)				
1. Political and Governance	High				
2. Macroeconomic	Moderate				
3. Sector Strategies and Policies	Moderate				
4. Technical Design of Project or Program	Moderate				
5. Institutional Capacity for Implementation and Sustainability	Moderate				
6. Fiduciary	Substantial				
7. Environment and Social	Moderate				
8. Stakeholders	Moderate				
9. Other	Low				
OVERALL	Substantial				
Finance					
Loan Closing Date - Additional Financing (Urban Water Supply Project - Formerly Bamako Water Supply Project - P157438)					
Source of Funds	Proposed Additional Financing Loan Closing Date				
IDA Grant	31-Dec-2021				
IDA Credit	31-Dec-2021				
Loan Closing Date(s) - Parent (Bamako Water Supply Project - P122826)					
Explanation:					
The proposal also includes a request to extend the closing date of the original project from December 31, 2018 to December 31, 2021, to ensure sufficient time to implement the proposed additional activities.					
Ln/Cr/TF	Status	Original Closing Date	Current Closing Date	Proposed Closing Date	Previous Closing Date(s)
IDA-53170	Effective	31-Dec-2018	31-Dec-2018	31-Dec-2021	
Change in Disbursement Arrangements					
Explanation:					
The definition of the single category of expenditure will need to be amended to incorporate the addition of a new project component. A separate Designated Account has been established for the AF activities.					

Change in Disbursement Estimates (including all sources of Financing)										
Explanation: To reflect the inclusion of the AF.										
Expected Disbursements (in USD Million)(including all Sources of Financing)										
Fiscal Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Annual	6.20	8.00	15.80	32.00	38.00	20.00	7.00	3.00	0.00	0.00
Cumulative	6.20	14.20	30.00	62.00	100.00	120.00	127.00	130.00	0.00	0.00
Allocations - Additional Financing (Urban Water Supply Project, Formerly Bamako Water Supply Project - P157438)										
Source of Fund	Currency	Category of Expenditure	Allocation				Disbursement %(Type Total)			
			Proposed				Proposed			
IDA	XDR	Goods, works, non-consulting services and consultants' services for Part 4 of the Project	21.20				100.00			
		Total:	21.20							
IDAT	XDR	Goods, works, non-consulting services and consultants' services for Part 4 of the Project	14.20				100.00			
		Total:	14.20							
Components										
Change to Components and Cost										
Explanation: The proposed additional activities will be regrouped under a new project component: Component D - Water Supply in Secondary Centers, with a cost of US\$50 million. The costs of components A, B and C will not be modified.										
Current Component Name		Proposed Component Name		Current Cost (US\$M)		Proposed Cost (US\$M)		Action		
Water Storage and Transmission				48.68		48.68		No Change		
Water Distribution				28.07		28.07		No Change		
Institutional Support and Capacity Building				3.25		3.25		No Change		
		Water Supply in Secondary Centers		0.00		50.00		New		
		Total:		80.00		130.00				

Other Change(s)		
Implementing Agency Name	Type	Action
Société Malienne de Patrimoine de l'Eau Potable (SOMAPEP)	Implementing Agency	No Change
Change in Financial Management		
<p>Explanation:</p> <p>The terms of reference of the current internal auditor will be updated to cover the AF activities as well as the reporting lines, including communication of internal audit reports. The terms of reference of the current external auditing firm will be updated to reflect the scope of the AF. The project implementation manual (PIM) and accounting software have been updated to include the AF activities.</p>		
Change in Procurement		
<p>Explanation:</p> <p>The current guidelines (Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers, dated January 2011 and revised July 2014, and Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers, dated January 2011 and revised July 2014) will apply and replace the guidelines referred to in the FA of Credit 5317-ML (guidelines dated January 2011). Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants”, dated October 15, 2006 and revised in January 2011 will continue to apply. In addition, procurement from United Nations Agencies has been added as a possible procurement method for goods and works.</p> <p>An updated procurement plan, including updated thresholds for applicable procurement methods and prior reviews, was agreed with the client before appraisal on May 5, 2016.</p>		
Change in Implementation Schedule		
<p>Explanation:</p> <p>The implementation schedule is changed to reflect additional activities for 2017-2021.</p>		
Other Change(s)		
<p>Explanation:</p> <p>Change in Project Name:</p> <p>The project is renamed to “Urban Water Supply Project” to reflect the continuation of the parent project in Bamako and the expansion of the geographical scope to secondary urban centers outside Bamako.</p>		
IV. Appraisal Summary		
Economic and Financial Analysis		
<p>Explanation:</p> <p>Rationale for Public Sector Intervention. A previous experience of private sector participation (PSP) in water and electricity services faced critical implementation issues that led to early termination of the arrangements in 2005. The reform option supported by the original project took into account the fact that Mali's attractiveness for potential private partners, thus, might be severely reduced. Therefore, the reform</p>		

consisted of splitting the sector's investment and operational responsibilities and establishing a performance-based contractual framework, similar to the ones set up in public-private partnerships of neighboring countries, although exclusively with public enterprises. It was also agreed that these arrangements will be reviewed after a reasonable time period to assess how the reform will be strengthened, including the need or not to seek PSP. This assessment will soon start.

World Bank's Value Added. The Bank's dialogue with sector actors and the Government has been instrumental in formulating the reform of the UWS subsector during the preparation of the original project and in helping implement the reform in parallel with the project's execution. The Bank is now in a privileged position to help SOMAPEP and SOMAGEP meet the challenges of the development of water services outside of Bamako. Value added will also be high at the implementation stage, with a Bank team highly knowledgeable about the sector challenges and the supervision of water investments.

Cost-Benefit Analysis. The cost-benefit analysis of the Project Appraisal Document (PAD) for the original project was updated to assess the economic internal rate of return (EIRR) and the net present value (NPV) of the overall project (original project and AF). The methodology is similar to the one used in the PAD. The PAD analysis was updated to reflect the current outcome of actual implementation and the impact of AF activities. Project benefits include the increased water consumption, the consumer surplus accruing to beneficiaries shifting from other water sources to water service connections or standposts, and the cost savings resulting from performance improvements. Project costs include investment costs, incremental operating costs, and renewal costs.

Results. The results of the updated analysis, together with the results of the PAD analysis of the original project, are summarized in Table 1. The NPVs are computed with the discount rate used in the PAD analysis (10 percent) and the current recommended rate for sustainable development projects (6 percent). The overall project (original project and AF) yields higher results than in the initial PAD analysis. The improvement is largely attributable to the actual outcome of the implementation of the original project.

Table 1. Results of Economic Analysis

	Unit	PAD Results	Original Project and AF (Updated Results)
NPV at 10%	US\$, millions	8.0	22.9
NPV at 6%	US\$, millions	124.8	150.3
EIRR	%	10.5	11.4

Financial Analysis. The financial and operating performances of SOMAGEP and SOMAPEP are reviewed in Annex 5. The main findings are as follows:

- (a) SOMAGEP's operational performances have significantly improved since the inception of the reform and are nearing the ones observed in the best-managed utilities of the sub-region, as demonstrated by the positive evolution of the key contractual indicators (non-revenue water [NRW] and collection rate).
- (b) SOMAGEP controlled key expenditures (energy and chemicals).
- (c) Staff productivity (measured by the number of staff per 1,000 connections) stagnated. The substantial increase (+35%) of labor costs in 2015 resulted from the recruitment of more than 150 employees to meet the workload generated by the additional service connections and from exogenous salary increases decided by the Government; this decision led to a deterioration of the operating income and created tensions in the cash position of SOMAGEP.
- (d) SOMAPEP maintained its financial equilibrium and continuously increased its net cash position, despite a confusing of its share of the water tariffs (the so-called prix patrimoine, Pp); however, the net income became negative from 2014 onward.

(e) SOMAPEP controlled its cash operating expenditures per m3 of water sold, which are comparable to the ones of the efficient asset-holding companies of Senegal and Niger. The increase of SOMAPEP's staff and of its labor costs since 2012 is commensurate with the expansion of the company's activities.

Allocation of Water Tariffs and Regulation. The revenue sharing of the water tariff between the operator's price (*prix exploitant*, Pe) and the asset-holding company's price (Pp) was provisionally set in March 2013, pending a determination through the use of the sector's financial model to be prepared by CREE. The finalization of the model took longer than expected. The 2015 values of Pe and Pp are somewhat disconnected from the reality, particularly Pp, which may only cover SOMAGEP's cash operating expenditures. The execution of the regulatory function will be reviewed in the upcoming independent assessment of the sector reform.

CREE's regulatory model was eventually finalized and various scenarios of revision of the water tariffs, combined with investment financing options and operating subsidies were prepared in December 2015. These scenarios will be presented to the Government in July 2016 and a final decision will be taken after consultation with the sector's external partners. It is likely that the magnitude of the contemplated tariff increases will require an additional assessment of their social acceptability, which may be financed under Component C of the original project.

Technical Analysis

Explanation:

The water investment program supported by the AF originates from an investment program designed by SOMAPEP in close coordination with SOMAGEP to improve and develop water services in urban centers facing critical sustainability and access challenges. The proposed rehabilitation and expansion of water production facilities, transmission, storage and pumping facilities is designed to improve the quantity of water available to existing customers and the quality and reliability of service. The extension of the social connections and standposts programs to the targeted urban centers will be carried out in parallel with the expansion of secondary and tertiary networks. No major technical issues are expected from the AF because technologies considered for water supply systems are proven and well established.

Readiness. The design studies of the proposed AF investments are financed by the Government of Mali from internal resources. Bidding documents for activities scheduled in the first 18 months will be ready before effectiveness of the AF.

Social Analysis

Explanation:

Social Inclusion. The project would continue to rely on pro-poor policies for developing access, including social water connections and public standposts programs.

Citizen Engagement. The original project includes the financing of customer satisfaction surveys and activities related to the generation of demand for social connections that will be expanded to cover the new targeted centers. These activities will be used to mainstream citizen engagement, particularly on (a) feedback of the urban population on the quality and availability of water services; and (b) the awareness of potential beneficiaries about their opportunities to obtain access to services. The intermediate indicators for citizen engagement were agreed at appraisal and read as follows: (a) percentage of satisfactory complaint resolution by the service operator; and (b) percentage of beneficiaries well-informed of their responsibilities regarding their access to water.

Gender. The AF will benefit from activities under the existing Component C and the expected reallocation to increase funds for institutional strengthening and capacity building. This will enable a review of current gender issues emerging from sex disaggregated beneficiary assessments and provide training to SOMAPEP and SOMAGEP staff on gender mainstreaming in utility operations and policy.

Environmental Analysis

Explanation:

Environmental Impact. There are no significant or irreversible adverse environmental impacts expected from the implementation of activities that would be financed under the proposed AF. Most of the adverse environmental and social impacts associated with these investments will be small in scale and site specific, typical of a Category B project, and therefore easily manageable at an acceptable level.

Safeguard Policies and Instruments. The project's EA category remains B (Partial assessment). In addition to the three safeguards policies (OP/BP 4.01 Environmental Assessment, OP/BP 4.12 Involuntary Resettlement, and OP/BP 7.50 International Waterways) triggered by the parent project, the AF triggered OP/BP 4.11 (Physical Cultural Resources) to reflect that chance find artifacts can show up during civil works.

The AF will finance the construction of water production facilities that will be using waters of the Niger River, an international waterway serving many riparian countries. The total necessary volume to take per day is estimated to be around 5,500 cubic meters per day, cumulated for the five cities of Kita, Bougouni, Selingue, Markala and Gao. An authorization to withdraw a debit of 302,400 cubic meters per day was issued by the Niger Basin Authority (NBA) to the Government in 2011. To date, out of this total, only 144,000 cubic meters per day have been deducted for the water treatment plant of Bamako. The project will continue to rely upon the water withdrawal authorization issued by the NBA¹.

As the exact physical locations of future investments are not yet known and will not be known by appraisal and the activities are diverse, the Borrower has accordingly updated the Environmental and Social Management Framework (ESMF) and the Resettlement Policy Framework (RPF). The ESMF and RPF were disclosed both in-country and at the Bank's InfoShop on May 13, 2016; and will be implemented accordingly.

During the parent project's implementation, screening of sub-projects has taken place to ensure identification and mitigation of any adverse impacts. In addition, limited Environmental and Social Impact Assessments and Resettlement Action Plans were developed and implemented. During the civil works' phase, a monthly environmental and social report was regularly produced by SOMAPEP. The Bank's safeguards specialists have been closely supporting the project and will continue to provide guidance and advice to ensure that the project will be implemented in full compliance with safeguards policies that are triggered (OP/BP 4.01, OP/BP 4.11, OP/BP 4.12, and OP/BP 7.50). Both safeguard instruments (ESMF and RPF) provide detailed mitigation measures to ensure sustainability and compliance with Malian regulations and legislation, as well as with the World Bank environmental and social policies.

¹ NBA is the Niger Basin Authority which is composed by Benin, Burkina, Cameroun, Chad, Cote d'Ivoire, Guinea, Mali, Niger and Nigeria.

Risk
<p data-bbox="191 254 349 283">Explanation:</p> <p data-bbox="191 302 1453 499">The overall risk associated with the AF is rated Substantial, in view of the country context, the risks associated with weaknesses identified during the first project implementation period and of the nature of the proposed activities. The political risk remains high, due to the security situation in the north (and its extension to the south through terrorist attacks). The security situation may have an impact on the implementation of AF activities in Gao and on the bidding process. Therefore, procurement from United Nations Agencies has been added as a possible procurement method for goods and works.</p> <p data-bbox="191 533 1453 596">Other risks associated with the AF are assessed as Moderate, with the exception of the fiduciary risk, which is rated Substantial:</p> <ul style="list-style-type: none"> <li data-bbox="191 630 1453 693">(a) Sector strategies and policies. The implementation of the sector reform demonstrates that all sector actors, including the government are strongly committed to the reform. <li data-bbox="191 699 1453 829">(b) Technical design. The works that are contemplated under the AF do not generate particular technical issues and the technologies are fully mastered by SOMAPEP and SOMAGEP. In addition, the satisfactory outcome of the bidding of waterworks under the original project demonstrated that there is an adequate level of competition for contracts in Mali. <li data-bbox="191 835 1453 930">(c) Institutional capacity for implementation and sustainability. SOMAPEP's implementation capacity has increased and AF activities are designed to address the specific sustainability issues that water services are facing in the targeted urban centers. <li data-bbox="191 936 1453 999">(d) Fiduciary. The procurement process may be affected by the security situation and the difficulties SOMAPEP faces to manage multiple contracts from activities supported by several donors. <li data-bbox="191 1005 1453 1100">(e) Environmental and social. The original project's implementation complied with the RPF and SOMAPEP's safeguards team is being strengthened to address the weaknesses identified in the compliance with environmental safeguards. <li data-bbox="191 1106 1453 1169">(f) Stakeholders: Existing customers should perceive significant improvements in the delivery and quality of water supply services. <li data-bbox="191 1176 1453 1331">(g) Other. The screening undertaken at the AF Project Concept Stage confirmed that the potential climate and disaster risks on the project components and subsector (water supply) were low. Despite the location of the project in a Sahelian country, characterized by high temperatures and limited availability of water, both the physical and non-physical components of the overall project (original and AF) will significantly contribute to reduce potential negative climate impacts.

V. World Bank Grievance Redress

26. Communities and individuals who believe that they are adversely affected by a Bank-supported project may submit complaints to existing project-level grievance redress mechanisms or the Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed to address project-related concerns. Project-affected communities and individuals may submit their complaint to the Bank's Independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of the Bank's non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the Bank's attention, and Bank management has been given an opportunity to respond. For information on how to submit complaints to the Bank's corporate GRS, visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the Bank's Inspection Panel, visit www.inspectionpanel.org.

Annex 1: A. Revised Results Framework and Monitoring Indicators

Urban Water Supply Project – Additional Financing (P157438)

Project Development Objectives

Original Project Development Objective - Parent:

The overall objective of the proposed project is to increase access to sustainable water services in Bamako.

Proposed Project Development Objective - Additional Financing (AF):

The objective of the Project is to increase access to sustainable water services in selected urban areas within the Recipient's territory.

Results

Core sector indicators are considered: Yes

Results reporting level: Project Level

PDO Level Results Indicators	Core	Status†	Unit of Measurement	Baseline Original Project	Progress To Date (May 2016)	Cumulative Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
						2017	2018	2019	2020	2021			
People provided with access to “improved water resources” under the project	<input checked="" type="checkbox"/>	R	Number	0	0	0	149,000	344,000	580,000	710,000	Annually	No. connections x 30 + No. standposts x 300	SOMAPEP
People with access to enhanced water supply services under the project	<input type="checkbox"/>	R	Number	0	0	0	0	114,400	241,600	256,000	Annually	Water pressure data loggers	SOMAGEP
Direct project beneficiaries	<input checked="" type="checkbox"/>	R	Number	0	0	0	149,000	458,400	827,600	966,000	Annually	Sum of the above	SOMAPEP
o/w female	<input checked="" type="checkbox"/>	R	Percentage	0	0	0	50	50	50	50	Annually		SOMAPEP
Financial equilibrium of the urban water supply subsector	<input type="checkbox"/>	C	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Annually	Annual review of CREE’s regulatory model	SOMAPEP and CREE

Note: †Status codes: C = continued; D = dropped; N = new; R = revised.

Intermediate Results Indicators	Core	Status†	Unit of Measurement	Baseline Original Project	Progress To Date (May 2016)	Cumulative Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
						2017	2018	2019	2020	2021			
Water storage capacity constructed	<input type="checkbox"/>	R	m ³	0	0	20,000	20,000	21,000	22,000	22,000	Annually	Progress reports	SOMAPEP
Transmission pipes constructed	<input type="checkbox"/>	C	km	0	11.3	13.0	13.0	13.0	13.0	13.0	Annually	Progress reports	SOMAPEP
Improved community water points constructed or rehabilitated under the project	<input checked="" type="checkbox"/>	R	Number	0	0	0	130	280	500	700	Annually	Progress reports	SOMAGEP
New piped household water connections that are resulting from the project intervention	<input checked="" type="checkbox"/>	R	Number	0	0	0	11,000	26,000	43,000	50,000	Annually	Progress reports	SOMAGEP
Distribution pipes constructed	<input type="checkbox"/>	R	km	0	0	50	280	660	857	957	Annually	Progress reports	SOMAPEP
Production capacity installed under the project	<input type="checkbox"/>	N	m ³ /day	0	0	0	-	2,000	4,000	7,500	Annually	Progress reports	SOMAPEP
Satisfactory complaint resolution by the service operator	<input type="checkbox"/>	N	Percentage	-	80	85	88	90	91	92	Annual	Annual reports	SOMAPEP
Beneficiaries who know at least two of their responsibilities regarding their access to water". Please reconcile	<input type="checkbox"/>	N	Percentage	-	0	25	50	-	75	75	Every two years	Customer satisfaction surveys	SOMAPEP
Completion of technical audits	<input type="checkbox"/>	C	Yes/No	No	No	Yes	Yes	Yes	Yes	Yes	Annually	Audit reports	SOMAPEP
Completion of the assessment of the execution of contractual arrangements	<input type="checkbox"/>	C	Yes/No	No	No	Yes	-	-	-	-	One assessment only	Progress reports	SOMAPEP

Note: †Status codes: C = continued; D = dropped; N = new; R = revised.

Summary of Results Framework Changes

Revisions to the Results Framework		Comments/ Rationale for Change
PDO		
<i>Current (PAD)</i>	<i>Proposed</i>	
To increase access to sustainable water services in Bamako	To increase access to sustainable water services in selected urban areas	Expansion of the geographical scope of the project to secondary centers under the AF Sustainability criteria are developed in Annex 2
PDO indicators		
<i>Current (PAD)</i>	<i>Proposed change*</i>	
People provided with access to “Improved Water Sources” under the project	Change in the EOPT value: increased from 390,000 to 710,000 people.	Outcome impact of the AF
People with access to enhanced water supply services under the project	Change in the EOPT value: increased from 220,000 to 256,000 people	Outcome impact of the AF
Direct project beneficiaries,	Change in the EOPT value: increased from 610,000 to 966,000	Outcome impact of the AF
of which female (%)	Adjustment from 49.8% to 50%	
Financial equilibrium of the urban water supply sector	No change	Definition of financial equilibrium remains as: Net cash balance (previous year plus net cash flow from operations minus debt service and variation of working capital requirements) positive or equal to zero
Intermediate Results indicators		
<i>Current (PAD)</i>	<i>Proposed change*</i>	
Water storage capacity constructed	Change in the EOPT value: from 20,000 m ³ to 22,000 m ³	Impact of the AF activities
Transmission pipes constructed	No change	
Improved community water points constructed or rehabilitated under the project	Change in the EOPT value: increased from 300 to 700 additional community water points	Impact of the AF activities
New piped household water connections that are resulting from the project intervention	Change in the EOPT value: increased from 30,000 to 50,000 water connections	Impact of the AF activities
Distribution pipes constructed	Change in the EOPT value: from 597 km to 957 km	Impact of the AF activities
	(New) Production capacity installed under the project: 7,500 m ³ /day	Impact of the AF activities
	(New) Percentage of satisfactory complaint resolution by the service operator	Corporate requirement to monitor citizen engagement in IDA-financed projects
	(New) Beneficiaries who know at least two of their responsibilities regarding their access to water	Corporate requirement to monitor citizen engagement in IDA-financed projects
Completion of technical audits	No change	
Completion of the assessment of the execution of contractual arrangements	No change	

Annex 2: Detailed Description of Additional Activities

Urban Water Supply Project – Additional Financing (P157438)

1. This annex reviews how the existing challenges facing urban water services and the PDO will be addressed by the proposed AF and then provides a detailed description of the activities financed under the AF.

Access and Sustainability Challenges

2. As shown in Table 2.1, all targeted centers, with the exception of Gao, exhibit low access rates, which are significantly lower than 50 percent. This is attributable to (a) a dearth of water investment in secondary centers since the termination of the PSP arrangements; (b) the high population growth, which left many urbanized areas without distribution networks; and (c) the high cost of service connections. The high water access rate in Gao is not reflective of the actual situation, as this city has recently experienced a huge inflow of migrants and refugees, who are not accounted for in the population estimate.

Table 2.1. Water Access in the Targeted Centers (2015)

Centers	Bougouni	Gao	Kita	Markala	Nioro	Sélingué
Population	83,000	106,000	120,000	58,000	60,000	33,500
No. of service connections	3,062	6,092	3,700	1,600	1,950	506
No. of standposts	31	117	35	25	21	19
Access rate	48%	91%	40%	41%	43%	31%

Source: SOMAGEP.

3. In addition, the backlog of renewal investments in the centers led to the deterioration of existing facilities, particularly for production facilities using surface water (water intakes and water treatment plants (WTPs) and groundwater (boreholes) and for water storage facilities. The deteriorated condition of facilities, compounded by other deficiencies, led to various sustainability issues in the delivery of water services, which are listed in Table 2.2.

Table 2.2. Sustainability Issues in the Targeted Centers

Issue	Bougouni	Gao	Kita	Markala	Nioro	Sélingué
Facilities in deteriorated condition	Raw water intake	Raw water intake, WTP	Raw water intake, WTP, and transmission	Raw water intake, WTP	Boreholes	—
Water quality	—	Iron and manganese content above standards	—	—	—	—
Water pressure	—	—	Insufficient storage capacity	—	—	Insufficient storage capacity
Water shortages	Insufficient treatment capacity	Insufficient treatment capacity	Insufficient treatment capacity	Insufficient treatment capacity	Insufficient yield of boreholes	Insufficient treatment capacity

Source: SOMAPEP

Relationship between Additional Activities, the PDO, and Challenges

4. In line with the PDO, the proposed AF will help scale up the results of the original project in developing access to sustainable water services by (a) improving the reliability of water services for existing customers through the rehabilitation and expansion of existing water production, transmission, and storage facilities; and (b) increasing access to piped water by constructing social water connections and public standposts. The AF will also seek to promote social inclusion and foster accountability through citizen engagement. The AF's responses to the access and sustainability challenges is detailed in Table 2.3.

Table 2.3. AF's Response to Challenges

	Issues/Centers	AF Response	Monitoring
Quality and reliability of water services			
Water Quality	Excessive iron and manganese content: Gao	Installation of iron and manganese removal facilities	Progress reports (from supervision engineers)
Reliability and continuity of service	Water shortages due to insufficient water production resulting from: <ul style="list-style-type: none"> deterioration of raw water intake facilities: Kita, Bougouni, Sélingué, Markala, and Gao defective WTPs: Kita, Markala insufficient yield of production boreholes: Nioro, Gao 	Rehabilitation or replacement of water intakes	Additional production capacity installed† Additional water storage constructed† Progress reports
	Insufficient water quantity: Kita, Sélingué, Gao	Expansion of water treatment capacity	
	Insufficient water pressure due to insufficient water storage: Sélingué, Markala	Rehabilitation and construction of elevated water storage tanks	
	Access to water services		
Absence of water service	Insufficient distribution network: all centers	Expansion of primary networks in Kita, Bougouni, Markala, and Gao Expansion of secondary and tertiary networks in all centers	Distribution pipes constructed†
	Excessive cost of service connections: all centers	Installation of subsidized (social) service connections in all centers	New piped household water connections that are resulting from the project intervention†
	Low population density in some peri-urban areas: all centers	Installation of standposts in urban areas where population density does not warrant the installation of service connections	Improved community water points constructed or rehabilitated under the project†

Note: † Project's monitoring indicator.

Detailed Project Activities

5. AF activities were selected during identification to fit the financial envelope allocated to the AF. All activities are regrouped in a new Component D: Water Supply in Secondary Centers, which comprises 7 subcomponents.

Subcomponent D.1 Kita - US\$11.70 million: This subcomponent will comprise the following activities:

- (a) Improvement of water services through (i) the rehabilitation of existing production facilities, including the water intake pumping station, the WTP, the transmission line (6 km), and ancillary facilities; (ii) the expansion of the water treatment production capacity by 1,000 m³ per day; (iii) the construction of an elevated storage tank (1,000 m³)
- (b) Development of access with (i) the construction of 15 km of primary distribution networks; (ii) the construction of 65 km of secondary and tertiary distribution networks; and (iii) the supply and installation of 5,000 social connections and 100 standposts

Subcomponent D.2 Bougouni - US\$6.15 million: This subcomponent will comprise the following activities:

- (a) Improvement of water services through the rehabilitation of existing production facilities, including the water intake pumping station and ancillary facilities, enabling an additional production capacity of 500 m³ per day
- (b) Development of access with (i) the construction of 10 km of primary distribution networks; (ii) the construction of 50 km of secondary and tertiary distribution networks; and (iii) the supply and installation of 4,000 social connections and 80 standposts

Subcomponent D.3 Sélingué - US\$9.66 million: This subcomponent will comprise the following activities:

- (a) Improvement of water services through the construction of new production facilities, including: (i) a new water intake and pumping station; (ii) a new WTP (1,500 m³ per day); (iii) the construction of a storage tank (1,000 m³) and a discharge pipe
- (b) Development of access with (i) the construction of 60 km of secondary and tertiary distribution networks; and (ii) the supply and installation of 4,000 social connections and 80 standposts

Subcomponent D.4 Niore du Sahel - US\$3.73 million: This subcomponent will comprise the following activities:

- (a) Improvement of water services through (i) the rehabilitation of existing production facilities, including the well-field connection pipes, the remote control facilities, and the well-field storage tanks; and (ii) the drilling and equipment of four additional boreholes and the construction of connection pipes

- (b) Development of access with (i) the construction of 40 km of secondary and tertiary distribution networks; and (ii) the supply and installation of 2,000 social connections and 40 standposts

Subcomponent D.5 Markala - US\$5.65 million: This subcomponent will comprise the following activities:

- (a) Improvement of water services through (i) the rehabilitation of existing production facilities, including the raw water intake, the existing WTP, and remote control facilities; and (ii) the rehabilitation of the existing transmission line, enabling an additional production capacity of 500 m³ per day
- (b) Development of access with (i) the construction of 5 km of primary distribution networks; (ii) the construction of 60 km of secondary and tertiary distribution networks; and (iii) the supply and installation of 3,000 social connections and 460 standposts

Subcomponent D.6 Gao - US\$9.20 million: This subcomponent will comprise the following activities:

- (a) Improvement of water services through (i) the rehabilitation of the existing production facilities, including the water intake pumping station, the WTP; (ii) the expansion of the water treatment production capacity by 2,000 m³ per day; (iii) the installation of iron and manganese removal facilities; and (iv) the rehabilitation of existing distribution pipes (10 km)
- (b) Development of access with (i) the construction of 5 km of primary distribution networks; (ii) the construction of 50 km of secondary and tertiary distribution networks; and (iii) the supply and installation of 2,000 social connections and four standposts

Subcomponent D.7 Studies and Supervision - US\$3.92 million: This subcomponent would comprise the following activities:

- (a) Control and supervision of the above works
- (b) Environmental and social studies and monitoring related to those works

Appendix to Annex 2

Table 2.4 Status of the Activities Financed under the Original Project

Project Components	Costs (US\$ M)		Activity/Output Indicator from the PAD	Current Status and Plans
	Original Allocation	Current Disbursements		
A.1 Water storage	10.82	1.87	Construction of two water storage tanks with 10,000 m ³ capacity	Contracts awarded in January 2015; construction ongoing
A.2 Transmission pipes	36.91	10.98	Supply and laying of a 4.8-km pipe DN 1200; and 7.7 km pipes DN 900 to 1200	Contracts awarded in October 2014; 13.1 km of pipes constructed
A.3 Design and supervision	0.95	0.36	Supervision of the above works	Contract awarded in March 2014 at a cost of US\$0.93 million and ongoing
B.1 Expansion of distribution networks	19.05	0	Construction of 47 km of primary network, 160 km of secondary networks and 390 km of tertiary networks	Bidding documents being prepared
B.2 Construction of social water connections	7.92	0	Construction of 30,000 service connections	Bidding documents being prepared
B.3 Construction of standposts	0.35	0	Construction of 300 standposts	Bidding documents being prepared
B.4 Design, supervision, and demand generation	0.75	0	Supervision of the distribution works and planning of social connections and standposts programs	Consultants being recruited
C.1 Institutional support to sector institutions	2.24	0.03	Assistance to SOMAPEP and SOMAGEP in communication and organization of workshops	Activity planned in Year 4 and after
			Updating of the business plans of SOMAPEP and SOMAGEP and provision of information technology	Activity will follow the Assessment of the sector
			Financial audits	Ongoing activity
			Technical audits	Consultants being recruited
			Assessment of the sector reform	Consultants being recruited
			Client satisfaction surveys	Terms of References (ToR) under preparation
			Impact studies	Activity to be implemented at the end of the project
C.2 Capacity building	0.66	0.23	Development of regulatory skills	Ongoing
			Training in procurement, FM, project management	Ongoing

Project Components	Costs (US\$ M)		Activity/Output Indicator from the PAD	Current Status and Plans
	Original Allocation	Current Disbursements		
			Twinning with experienced utilities of the sub-region	Activity not yet started
C.3 Environmental and social management	0.35	0.13	Capacity building; information, education, and communication; specific environmental assessments (ESMP and RAP); and monitoring of ESMP activities	Ongoing activities
	80.00	13.60		

Note: DN = Nominal Diameter (*diamètre nominal*); ESMP = Environmental and Social Management Plan; RAP = Resettlement Action Plan.

Annex 3: Detailed Costs of Additional Activities

Table 3.1 Urban Water Supply Project – Additional Financing (P157438)

N°	Subcomponent/Activity	Unit	Quantity	Unit Price (US\$)	Total cost (US\$)
I	Kita				11,695,000
I.1	Rehabilitation of existing production facilities				700,000
	Raw water intake and pumping station (250 m ³ /h)	Lump sum		120,000	120,000
	Cleaning of reservoir	Lump sum		120,000	120,000
	Rehabilitation of banks	Lump sum		40,000	40,000
	Access road	Lump sum		100,000	100,000
	Staff housing	Lump sum		20,000	20,000
	WTP (Settling tank no. 2)	Lump sum		300,000	300,000
I.2	Rehabilitation of transmission pipe				900,000
	Ductile cast iron (DCI) pipe DN 200	km	6	150,000	900,000
I.3	Expansion of distribution networks				6,275,000
	Primary pipes (DCI, DN 200–300)	km	15	160,000	2,400,000
	Secondary pipes (PVC, DN 110–160)	km	15	75,000	1,125,000
	Tertiary pipes (PVC, DN 63–90)	km	50	55,000	2,750,000
I.4	Water treatment and storage				2,500,000
	Construction of a new WTP (1,000 m ³ /day)	m ³ /day	1,000	1,000	1,000,000
	Construction of one elevated water storage tank (1,000 m ³)	Lump sum			1,500,000
I.5	Connections and standposts				1,320,000
	Social connections	Number	5,000	240	1,200,000
	Standposts	Number	100	1,200	120,000
II	Bougouni				6,146,000
II.1	Rehabilitation and expansion of existing production facilities (additional capacity 500 m³/day)				540,000
	Raw water intake and pumping station	Lump sum		100,000	100,000
	Cleaning of reservoir	Lump sum		100,000	100,000
	Intake well	Lump sum		40,000	40,000
	Access road	Lump sum		100,000	100,000
	Staff housing	Lump sum		20,000	20,000
	Rehabilitation of the WTP	Lump sum		180,000	180,000
II.2	Expansion of distribution networks				4,550,000
	Primary pipes (DCI, DN 200–300)	km	10	160,000	1,600,000
	Secondary pipes (PVC, DN 110–160)	km	10	75,000	750,000

N°	Subcomponent/Activity	Unit	Quantity	Unit Price (US\$)	Total cost (US\$)
	Tertiary pipes (PVC, DN 63–90)	km	40	55,000	2,200,000
II.3	Connections and standposts				520,000
	Social connections	Number	4,000	240	960,000
	Standposts	Number	80	1,200	96,000
III	Sélingué				9,656,000
III.1	Production				3,400,000
	Construction of a WTP (1,500 m ³ /day) and ancillary facilities (storage, discharge pipe, and so on)	m ³ /day	1,500	2,000	3,000,000
	Construction and equipment of a new raw water pumping station	Lump sum		400,000	400,000
III.2	Expansion of distribution networks				3,700,000
	Secondary pipes (DCI, DN 100 and PVC, DN 110–160)	km	20	75,000	1,500,000
	Tertiary pipes (PVC, DN 63–90)	km	40	55,000	2,200,000
III.3	Construction of one elevated water storage tank (capacity 1,000 m³)	Lump sum			1,000,000
III.4	Connections and standposts				1,056,000
	Social connections	Number	4,000	240	960,000
	Standposts	Number	80	1,200	96,000
IV	Nioro du Sahel				3,728,000
IV.1	Rehabilitation				240,000
	Rehabilitation of storage facilities	Lump sum		100,000	100,000
	Security of well field	Lump sum		100,000	100,000
	Discharge pipes	Lump sum		40,000	40,000
IV.2	Production				560,000
	New boreholes	Number	4	40,000	160,000
	Connection to water system	Number	4	100,000	400,000
IV.3	Expansion of distribution networks				2,400,000
	Secondary pipes (DCI, DN 100 and PVC, DN 110–160)	km	10	75,000	750,000
	Tertiary pipes (PVC, DN 63–90)	km	30	55,000	1,650,000
IV.4	Connections and standposts				528,000
	Social connections	Number	2,000	240	480,000
	Standposts	Number	40	1,020	48,000
V	Markala				5,652,800
V.1	Rehabilitation and expansion of production capacity (additional capacity 500 m³/day)				400,000

N°	Subcomponent/Activity	Unit	Quantity	Unit Price (US\$)	Total cost (US\$)
	Raw water intake	Lump sum		100,000	100,000
	Existing WTP and remote control	Lump sum		300,000	300,000
V.2	Rehabilitation of transmission pipe				100,800
	DCI pipe DN 250	m	720	140	100,800
V.3	Extension of distribution networks				4,300,000
	Primary pipes (DCI, DN 200–300)	km	5	160,000	800,000
	Secondary pipes (PVC DN 110–160)	km	10	75,000	750,000
	Tertiary pipes (PVC, DN 63–90)	km	50	55,000	2,750,000
V.4	Rehabilitation of water tower	Lump sum		60,000	60,000
V.5	Connections and standposts				792,000
	Social connections	Number	3,000	240	720,000
	Standposts	Number	60	1,200	72,000
VI	Gao				9,198,000
VI.1	Rehabilitation and expansion of production capacity				4,120,000
	Rehabilitation and expansion (2,000 m ³ /day) of existing WTP (including removal of iron and manganese)	m ³ /day	2,000	2,000	4,000,000
	Rehabilitation of existing boreholes	Lump sum		120,000	120,000
VI.2	Rehabilitation of distribution networks				800,000
	PVC pipes DN 160	km	4	90,000	360,000
	PVC pipes DN 110	km	4	75,000	300,000
	PVC pipes DN 90	km	2	70,000	140,000
VI.3	Expansion of distribution networks				3,750,000
	Primary pipes (DCI, DN 200–300)	km	5	160,000	800,000
	Secondary pipes (PVC, DN 110–160)	km	10	75,000	750,000
	Tertiary pipes (PVC, DN 63–90)	km	40	55,000	2,200,000
VI.4	Connections and standposts				528,000
	Social connections	Number	2,000	240	480,000
	Standposts	Number	40	1,200	48,000
VII	Other				3,924,200
	Works supervision (8%)	Lump sum			3,650,000
	Environmental and social studies and monitoring	Lump sum			274,200
	TOTAL				50,000,000

Annex 4: Implementation Arrangements

Urban Water Supply Project – Additional Financing (P157438)

1. **The implementation arrangements under the AF would remain unchanged.** The following paragraphs give an update on the existing implementation arrangements and provide updated information on fiduciary aspects and monitoring and evaluation (M&E).
2. SOMAPEP is the executing agency of the original project. SOMAPEP: (a) carries out FM through its Financial and Accounting Department (*Direction Financière et Comptable*, DFC); (b) manages all procurement-related activities for the project through its Planning and Investments Department (*Direction de la Planification et des Investissements*, DPI); (c) prepares annual work plans and budgets, to be approved by the Steering Committee and the Association; and (d) ensures M&E and reporting through the DPI and DFC (financial reporting). These arrangements will continue to apply under the AF.
3. SOMAPEP will implement all AF activities. The execution of the social connections programs requires efficient planning and coordination between the identification of beneficiaries and the design and execution of works. Under the original project, SOMAPEP delegated the management of the programs to SOMAGEP, which is better placed to elicit demand from potential customers. This delegation will be extended to the programs to be carried out under the AF. The Project Implementation Manual has been updated before appraisal to include the new activities under the AF.
4. **Staffing.** To take care of the scattered implementation of activities, a dedicated project manager from SOMAPEP will manage AF activities with the assistance of technicians located in the targeted centers. Given the limited number of contracts required for the AF's implementation, there is no need for recruiting additional procurement or FM staff for the project. However, to manage the overall project, including all the activities financed by other donors SOMAPEP will need to hire additional personnel to reinforce its fiduciary services (procurement and FM). In addition, implementation will benefit from the strengthening of SOMAPEP's safeguards team.
5. **Oversight.** The oversight of the original project was initially carried out by the Steering Committee of Mali's Water and Sanitation Sectoral Program (*Programme sectoriel eau potable et assainissement*, PROSEA). This responsibility was further shifted to the Steering Committee of the Kabala Project, which was created in July 2014. The latter's mandate and composition (e.i number of meetings per year and inclusion of representatives of the new cities) require adjustments to ensure an adequate functioning, which will be made prior to effectiveness.
6. **FM assessment.** The FM system and performance of SOMAPEP under the original project are acceptable to IDA. SOMAPEP will be responsible for FM of the AF and remains the Bank's focal point. SOMAPEP is familiar with the Bank's FM requirements and is currently managing the first phase of this IDA-financed project. The current FM staffing is adequate. The FM performance was rated Satisfactory following the last supervision mission completed in 2015. For the purpose of this AF, the fiduciary risk has been assessed as Substantial following the primary risk assessment which took into account (a) the country overall public financial management risk

level; and (b) the difficulties for SOMAPEP to manage multiple contracts from activities supported by several donors.

7. **FM arrangements.** The FM of the AF will follow the same approach as the implementation arrangements in place for the ongoing project managed by SOMAPEP. The configuration of the current accounting software ‘TOMPRO’ will be updated. The existing FM procedures manual that was prepared during the first phase of the project was updated and will be used for the purpose of this AF.

8. **FM reporting.**

- (a) **The unaudited interim financial reports (IFRs)** are prepared every quarter and submitted to the Bank regularly (for example, 45 days after the end of each quarter) on time. The frequency of IFR preparation as well as its format and content will remain unchanged.
- (b) **The internal audit function contracted to an individual consultant will remain unchanged.** The internal auditor will be required to prepare and submit to the Bank and the Steering Committee, his annual audit plan. Furthermore, in addition to the project coordinator, the internal auditor will be required to communicate copies of the reports of his missions and his quarterly reports to the Bank and the Steering Committee. The terms of reference of the current internal auditor will be updated to cover the AF activities as well as the reporting line, including communication of internal audit reports.
- (c) **There is no overdue audit report in the project and the sector at the time of preparation of the AF.** The audit report of the project managed by SOMAPEP covering the period ending on December 31, 2014, was submitted on time; the external auditor expressed an unqualified opinion. The next audit report of IDA-financed projects in the sector in Mali is due on June 30, 2016. The accounts of the AF will be audited on an annual basis and the external audit report will be submitted to IDA no later than six months after the end of each calendar year; similar to the ongoing phase 1 of the project. The project will comply with the Bank disclosure policy of audit reports and place the information provided on the official website within one month of the report being accepted as final by the team.

9. **Disbursement arrangements.** The original credit funds were allocated to a single disbursement category. The category’s formulation in the original Financial Agreement—“*Goods, works, non-consulting services, training and consultants’ services for the project*”—will be amended to apply to the AF activities. The additional credit and grant will finance 100 percent of eligible expenditures inclusive of taxes. A new DA was opened by SOMAPEP in a commercial bank acceptable to IDA. Interest incomes generated from the DA will be credited in a sub-account to be opened in a commercial bank. The ceiling of the DA will be set at CFAF 1 billion. Upon effectiveness, an initial advance up to the ceiling of the DA will be made and subsequent disbursements will be made against submission of statements of expenditures (SOE) reporting on the use of the initial/previous advance. The option to disburse against submission of quarterly unaudited IFRs (also known as report-based disbursements) could be considered, as soon as the

project meets the criteria. The other methods of disbursing the funds (reimbursement, direct payment, and special commitment) will also be available to the project. The minimum value of applications for these methods is 20 percent of the DA ceiling. The project will sign and submit withdrawal applications (WA) electronically using the eSignatures module accessible from the Bank's Client Connection website.

10. **Procurement.** The procurement arrangements of the original project will continue to apply, as SOMAPEP will manage the procurement of all activities. The Procurement Plan of the AF has been prepared based on the current guidelines and was reviewed and agreed by the Bank before appraisal on May 5, 2016.

11. Based on the current overall residual fiduciary risk, which is Substantial, the project will be supervised twice a year to ensure that project FM and procurement arrangements still operate well and funds are used for the intended purposes and in an efficient way.

12. **M&E.** The M&E arrangements of the original project will continue to apply. The contractual framework of the UWS subsector, and particularly the Performance Contract of SOMAGEP and the Framework Agreement of SOMAPEP provide for adequate reporting of key indicators of project outcomes, for example, access data and information on the financial equilibrium of the sector. SOMAGEP will also carry out satisfaction surveys to obtain customers' feedback on the delivery of water services. SOMAPEP will carry out beneficiary assessments before completion.

13. **Environment and safeguards.** The safeguards team of SOMAPEP is being strengthened by the recruitment of one senior environmental and social specialist and two junior specialists, which would help address the weaknesses noted in the environmental management of the original project. The project's EA category remains B (partial assessment). In addition to the three safeguards policies (OP/BP 4.01, OP/BP 4.12, and OP/BP 7.50) triggered by the parent project, the AF triggered OP/BP 4.11 (Physical Cultural Resources) to reflect that artifacts can show up during earth works. As the exact physical location of future investments is not yet known and will not be known by appraisal; and the activities are diverse, the Borrower has already updated the ESMF and RPF. The ESMF and RPF were disclosed both in-country and at the Bank's InfoShop on May 13, 2016, before appraisal and will be implemented accordingly. Safeguards instruments provide detailed mitigation measures to ensure sustainability and compliance with Malian regulations and legislations, as well as with the Bank's environmental and social policies. The AF project costs include a provision for the implementation and monitoring of the safeguards instruments.

Annex 5: Economic and Financial Analysis

Urban Water Supply Project – Additional Financing (P157438)

1. Rationale for Public Sector Intervention. A previous experience of private sector participation (PSP) in water and electricity services faced critical implementation issues that led to early termination of the arrangements in 2005. The reform option supported by the original project took into account the fact that Mali's attractiveness for potential private partners, thus, might be severely reduced. Therefore, the reform consisted of splitting the sector's investment and operational responsibilities and establishing a performance-based contractual framework, similar to the ones set up in public-private partnerships of neighboring countries, although exclusively with public enterprises. It was also agreed that these arrangements will be reviewed after a reasonable time period to assess how the reform will be strengthened, including the need or not to seek PSP. This assessment will soon start.
2. World Bank's Value Added. The Bank's dialogue with sector actors and the Government has been instrumental in formulating the reform of the UWS subsector during the preparation of the original project and in helping implement the reform in parallel with the project's execution. The Bank is now in a privileged position to help SOMAPEP and SOMAGEP meet the challenges of the development of water services outside of Bamako. Value added will also be high at the implementation stage, with a Bank team highly knowledgeable about the sector challenges and the supervision of water investments.
3. The Economic Analysis section of this annex aims to update the cost-benefit analysis carried out for the original project by taking into account (a) the actual implementation, to date, of the original project and (b) the impact of the activities proposed in the AF.
4. The Financial Analysis section aims to (a) assess the outcome of the reform with regard to the financial situation of SOMAPEP and SOMAGEP; (b) review the tariffs and regulation aspects; and (c) assess the financial impact of the AF's activities.
5. These assessments show that (a) the overall project (combining the original project and the AF) will generate a satisfactory EIRR and NPV; (b) the implementation of the reform yielded results, with regard to the operational performances of SOMAGEP and the financial equilibrium of SOMAPEP; and (c) the implementation of the regulatory framework exhibits some weaknesses and should be carefully reviewed in the upcoming independent assessment of the sector reform.

Economic Analysis

6. **Methodology and scope.** The cost-benefit analysis has been updated to assess the EIRR and the NPV of all activities carried out under the original project and the proposed AF. The PAD methodology remains the same. The scope of the PAD analysis of the original project encompassed the comprehensive system of water facilities to be constructed under the Kabala Project on the right bank of the Niger River, which regroups: (a) the two water components of the original project; (b) the upstream facilities (intake, WTP, pumping station, and transmission main from Kabala financed by AFD, EIB, and the EU; and (c) the distribution networks that will be financed by the African Development Bank and will use water produced at Kabala and stored and transmitted through IDA-financed facilities. The updated analysis will in addition consider the six urban

centers targeted by the AF. Project benefits include the increased water consumption, the consumer surplus accruing to beneficiaries shifting from other water sources to water service connections or standposts, and cost savings that result from the improvement of operational performances. Project costs include capital costs (100 percent of the cost of activities under the original project and the AF), incremental operating costs (energy and chemicals costs, commercial costs linked to the new customers, and maintenance costs) and renewal costs.

7. **Update of original project’s analysis.** The analysis was updated to take into account the following:

- (a) **The results of procurement awards.** The contracts of Component A (Water Storage and Transmission) were awarded at half the PAD-estimated cost. Other contracts financed in parallel by AFD, EIB, and the EU were awarded at a cost higher than the PAD estimates, but their scope was modified to cover the needs of the two phases of the Kabala project. Their costs were adjusted in the economic analysis to reflect the share of the first phase.
- (b) The time schedule of investments, project benefits, and costs that result from actual implementation.
- (c) The impact of the tariff revisions scheduled by CREE in the scenario that entails the lowest tariff increases (see Table 5.5 below, scenario I.2), corrected for inflation.
- (d) Some minor changes in the basic assumptions regarding the variable operating costs (energy and chemicals) and the time schedule of the expected improvements of NRW.

8. Overall, these updates have a positive impact on the results of the economic analysis.

9. **Specific assumptions for the AF.** The water demand in the secondary centers is significantly different from the capital city. SOMAGEP’s clients consume less water than in Bamako, and the average price of water is lower in the secondary centers. Table 5.1 summarizes the main assumptions used in the analysis.

Table 5.1. Basic Assumptions

Item	Unit	Bamako	Targeted centers
Per capita consumption by source of supply:			
Standposts	Lpcd	25	15
Social connections	Lpcd	80	55
Average price of water:			
Standposts	CFAF/m ³	113	113
Social connections	CFAF/m ³	222	187
All clients	CFAF/m ³	303	268

Source: SOMAGEP and design studies; Lpcd = liters per capita per day.

Note: These prices are subject to the annual revisions of about 1.4% in constant terms that are scheduled by CREE over 2016-2022

10. **Results.** Table 5.1 provides (a) the results of the PAD analysis (Bamako only), and (b) the results of the updated analysis for Bamako, the additional activities in the secondary centers and for the overall project (Bamako and secondary centers). The NPV is computed with the discount rate used in the PAD analysis (10 percent) and the current recommended rate for sustainable development projects (6 percent). The table also shows the values of the long-term marginal cost (LTMC), calculated with a discount rate of 6 percent

Table 5.2. Results of the Updated Economic Analysis

	Unit	PAD Results (Bamako)	Updated Results		
			Bamako	AF Activities (secondary centers)	Overall
NPV at 10%	US\$, millions	8.0	39.6	-18.4	22.9
NPV at 6%	US\$, millions	124.8	161.0	-11.3	150.3
EIRR	%	10.5	12.8	3.6	11.4
LTMC at 6%	CFAF/m ³	235	215	368	236

11. The overall project (original project and AF) yields higher results than in the initial PAD analysis. The improvement is largely attributable to the actual outcome of the implementation of the original project. The additional activities yield a significantly lower IRR, which reflects the fact that water tariffs are set at the national level and that Bamako water activities subsidize the activities in the secondary centers. This is also reflected in the LTMC, which is 70 percent higher in the secondary centers than in Bamako.

Financial Analysis

Outcome of the Reform

12. **Operational and financial performances of SOMAGEP.** Table 5.3 summarizes the evolution of SOMAGEP's income statements since 2012 and provides selected operational and financial indicators.

Table 5.3. SOMAGEP: Selected Financial Data (CFAF, millions) and Indicators

Year	2012	2013	2014	2015	Variation 2012–2015
Income statements					
Water sales	15,972	18,299	19,546	20,419	+28%
Operating revenues	18,256	20,955	23,211	25,802	+41%
Cash operating expenditures	16,264	18,658	20,253	22,650	+39%
<i>o/w: Labor costs</i>	<i>3,807</i>	<i>4,324</i>	<i>4,964</i>	<i>6,716</i>	<i>+76%</i>
<i>Energy</i>	<i>3,547</i>	<i>3,396</i>	<i>3,364</i>	<i>4,117</i>	<i>+16%</i>
<i>Chemicals</i>	<i>1,210</i>	<i>1,716</i>	<i>1,514</i>	<i>1,391</i>	<i>+15%</i>
Depreciation and allowances	1,029	1,097	1,791	2,858	+178%
Operating costs	17,292	19,756	22,044	25,508	+48%
Operating income	964	1,200	1,167	293	-70%
Interest	524	566	608	614	+17%
Income tax	182	208	221	244	+34%
Net income	272	425	370	-543	-300%
Operational Indicators					
Volumes sold (m ³ , millions)	62.9	64.3	69.7	73.3	+17%
Number of active service connections	142,577	156,310	161,718	174,752	+23%
Number of staff per 1,000 connections	5.2	5.1	4.7	5.5	+0.3%
NRW	28.0%	26.3%	27.7%	24.5%	-3.5%
Collection ratio (private customers)	91.0%	86.3% †	93.3%	95.2%	+4.2%
Financial indicators					
P _c : Average revenue per m ³ sold (CFAF)	254.1	284.5	280.5	278.6	+10%
Working ratio	89.1%	89.0%	87.3%	87.8%	-1.3%
Operating ratio	94.7%	94.3%	95.0%	98.9%	+4.1%
Customers receivables (months)	13.3	11.5	10.8	9.8	-27%
Suppliers payables (months)	7.4	6.9	7.3	8.2	+11%

Source: SOMAGEP audited financial statements (2012-2014) and unaudited 2015 financial statements

Note: † This low value derives from the 2013 security situation, which prevented billing customers in the centers of the northern regions.

13. The above results show that:
- SOMAGEP's operational performances have significantly improved since the inception of the reform and are nearing the ones observed in the best-managed utilities of the sub-region, as demonstrated by the positive evolution of the key contractual indicators (NRW and collection rate);
 - SOMAGEP controlled key expenditures (energy and chemicals); and
 - Staff productivity (measured by the number of staff per 1,000 connections) stagnated. The substantial increase (+35%) of labor costs in 2015 resulted from the recruitment of more than 150 employees to meet the workload generated by the additional service connections and from exogenous salary increases decided by the Government; this

decision led to a deterioration of the operating income and created tensions in the cash position of the company.

14. **Current situation of SOMAPEP.** Table 5.4 summarizes the evolution of SOMAGEP's income statements and of its statements of sources and application of funds and provides selected financial indicators.

Table 5.4. SOMAPEP: Selected Financial Data and Indicators (CFAF, millions)

Year	2012	2013	2014	2015	Variation 2012–2015
Income statements					
Water fees	4,322	2,466	2,678	1,725	-60%
Operating revenues	4,344	2,777	3,142	1,882	-57%
Cash operating expenditures	708	1,652	1,941	1,507	113%
<i>o/w: Labor costs</i>	322	454	604	695	116%
Depreciation and allowances	2,022	4,276	3,963	2,829	40%
Operating costs	2,679	5,928	5,904	4,336	62%
Operating income	1,665	-3,462	-2,761	-2,454	-247%
Income tax	1,219	199	27	17	-99%
Net income	1,092	182	-459	-320	-129%
Sources and application of funds					
Cash generated by operations	2,417	-5,098	1,176	352	-85%
Debt service	0	0	0	0	0%
Variation of working capital requirements	1,922	-6,879	374	-883	-146%
Investments	742	1,278	2,456	4,539	512%
Borrowings	0	0	0	0	0%
Grants and subsidies	331	698	1,726	3,716	1024%
Cash variation	84	1,200	72	413	391%
Net cash	299	1,499	1,571	1,984	564%
Indicators					
Volumes sold (m ³ , millions)	62.9	64.3	69.7	73.3	17%
P _p : SOMAPEP fee (CFAF/m ³)	68.7	38.3	38.4	23.5	-66%
Cash operating expenditures per m ³ (CFAF)	11.3	25.7	27.9	20.6	83%
Operating ratio	61.7%	213.5%	187.9%	230.4%	168.7%
Net fees receivables (CFAF, millions)	5,580	5,093	5,093	9,781	75%
Fees receivables (months)	15.5	24.8	22.8	68.0	339%

Source: SOMAPEP audited financial statements (2012–2014) and unaudited 2015 financial statements.

15. The above results show that:
- (a) SOMAPEP maintained its financial equilibrium² and continuously increased the net cash position,³ despite a confusing evolution of its share of the water tariffs, P_p , (see below); however, the net income became negative from 2014 onwards;
 - (b) the huge increase of arrears on fees (almost CFAF 10 billion at the end of 2015) results from uncertainties about the applicable P_p and may not be confirmed; and
 - (c) SOMAPEP's cash operating expenditures per m^3 sold are comparable to the ones of the asset-holding companies of Senegal and Niger. They have increased with the expansion of the company's activities since 2012, in particular staff and labor costs.

16. **Allocation of water tariffs and regulation.** The revenue sharing of the water tariff between the P_e and P_p was provisionally set in March 2013, pending a determination using the sector's financial model to be prepared by CREE. The finalization of the model took much longer than expected. In the interim, the initial value of P_p was progressively reduced from CFAF 69 per m^3 to CFAF 23.5 per m^3 . SOMAGEP's remuneration increased in parallel from CFAF 254 per m^3 to CFAF 279 per m^3 . The 2015 values of P_e and P_p are somewhat disconnected from the reality, particularly P_p , which may only cover SOMAGEP's cash operating expenditures. The execution of the regulatory function will be reviewed in the upcoming independent assessment of the sector reform.

Financial Perspectives

17. **Financial forecasts and modeling.** CREE's regulatory model was finalized in May 2015 and various scenarios of revision of the water tariffs and of the revenue sharing between SOMAPEP and SOMAGEP were prepared in December 2015. Table 5.5 provides the main features of the three scenarios that are being considered for submission to the Government.

Table 5.5. Scenarios of Tariff Revisions

Scenarios	Operating Subsidies to SOMAPEP (CFAF, millions)	Tariff Increases	Comments
Option 1: Pari passu on-lending of Kabala-related debt to SOMAPEP			This option is consistent with the principle of the financial autonomy of the sector's development
Scenario I.1	2016: 3,388 2017: 1,641 2018: 263	Annual tariff increases of 8.1% from 2018 to 2022	Substantial operating subsidies to SOMAPEP Multiple tariff increases that may not be socially acceptable

² Definition of financial equilibrium remains as: Net cash balance (previous year plus net cash flow from operations minus debt service and variation of working capital requirements) positive or equal to zero

³ 2012 was the first year of operation of SOMAPEP and the volume of activities (investments) have been multiplied by a factor of five since that date

Table 5.5. Scenarios of Tariff Revisions

Scenarios	Operating Subsidies to SOMAPEP (CFAF, millions)	Tariff Increases	Comments
Scenario I.2	2016: 2,152	Annual tariff increases of 5.5% from 2016 to 2022	Limited operating subsidy to SOMAPEP Multiple tariff increases that may be socially acceptable
Option 2: Full subsidization of Kabala project			This option is inconsistent with the principle of financial autonomy of the sector
Scenario II	None	Single tariff increase of 15.9% in 2016	

Source: CREE.

18. The scenarios will be presented to the Government in July 2016 and a final decision will be taken after consultation with the sector's external partners. It is likely that the magnitude of the contemplated tariff increases will require an additional assessment of their social acceptability, which may be financed under Component C of the original project.

Financial Impact of the Project

19. The financial impact of the original project and of the additional activities can be measured by the financial internal rate of return (FIRR). The financial cash-flow stream is derived from the economic cash flows by eliminating the benefits that do not accrue to SOMAGEP and SOMAPEP (consumer surplus) and taking into account the actual revenue collection. The FIRR is now estimated at 8.1 percent. The PAD estimate was 7.4 percent.