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Report No: ICR00175

IMPLEMENTATION COMPLETION AND RESULTS REPORT

(IDA-59210, IDA-64520)

ON A

CREDIT

IN THE AMOUNT OF EUR 178.6 MILLION
(US$189 MILLION EQUIVALENT)

TO THE

REPUBLIC OF CÔTE D'IVOIRE

FOR THE

CÔTE D'IVOIRE URBAN WATER SUPPLY AND SANITATION PROJECT
January 31, 2025

Water Global Practice
Western and Central Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective July 31, 2024)

Currency Unit =	CFA Franc (CFAF)
CFAF 605.99 =	US$1
US$1.08 =	EUR 1

FISCAL YEAR
January 1 – December 31

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ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
CC-PRICI	Coordination Unit of the Infrastructure Renaissance Project in Côte d'Ivoire (*Cellule de Coordination du PRICI*)
CPF	Country Partnership Framework
DMA	District Meter Area
E&S	Environmental and Social
EIRR	Economic Internal Rate of Return
EOPT	End-of-Project Target
ERR	Economic Rate of Return
ESMP	Environmental and Social Management Plan
FA	Financing Agreement
FIRR	Financial Internal Rate of Return
FM	Financial Management
GBV	Gender-Based Violence
ICR	Implementation Completion and Results Report
IFR	Interim Financial Report
M&E	Monitoring and Evaluation
MHM	Menstrual Hygiene Management
MINHAS	Ministry of Hydraulics and Sanitation (*Ministère de l'Hydraulique de l'Assainissement et de la Salubrité*)
MPA	Multiphase Programmatic Approach
NGO	Nongovernmental Organization
NPV	Net Present Value
NRW	Nonrevenue Water
ONAD	National Sanitation and Drainage Agency (*Office National de l'Assainissement et du Drainage*)
ONEP	National Office of Drinking Water (*Office National de l'Eau Potable*)
PAD	Project Appraisal Document
PASEA	Côte d'Ivoire Water Security and Sanitation Support Program
PCU	Project Coordination Unit
PDO	Project Development Objective
PND	National Development Plan (*Plan National de Développement*)
PREMU	Urban Water Supply and Sanitation Project (*Projet de Renforcement de l'alimentation en Eau potable en Milieu Urbain*)
SDG6	Sustainable Development Goal 6
SODECI	Water Distribution Company of Côte d'Ivoire (*Société de Distribution d'Eau de la Côte d'Ivoire*)
TA	Technical Assistance
TTL	Task Team Leader
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization

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DATA SHEET

BASIC DATA

Product Information

Operation ID P156739	Operation Name Cote d'Ivoire Urban Water Supply and Sanitation Project
Product Investment Project Financing (IPF)	Operation Short Name Urban Water Supply & Sanitation Project
Operation Status Closed	Approval Fiscal Year 2017
Original EA Category Partial Assessment (B) (Approval package - 09 Dec 2016)	Current EA Category Partial Assessment (B) (Restructuring Data Sheet - 30 Jun 2024)

CLIENTS

Borrower/Recipient Republic of Cote d'Ivoire	Implementing Agency Cellule de Coordination du PRICI (CC-PRICI) - PREMU

DEVELOPMENT OBJECTIVE

Original Development Objective (Approved as part of Approval Package on 09-Dec-2016)

The original project development objective is: to improve quality of, and increase access to, water services in selected urban areas and to strengthen capacity of ONEP for financial planning and financial management of the urban water supply sector.

The revised project development objective is: to increase access and quality of water services and access to sanitation in selectedurban areas, and to improve planning and monitoring of the urban water sector.

FINANCING

Financing Source	Original Amount (US$)	Revised Amount (US$)	Actual Disbursed (US$)
World Bank Financing	200,000,000.00	200,000,000.00	196,281,050.74
IDA-64520	150,000,000.00	150,000,000.00	144,880,130.99
IDA-59210	50,000,000.00	50,000,000.00	51,400,919.75
Total	**200,000,000.00**	**200,000,000.00**	**196,281,050.74**

RESTRUCTURING AND/OR ADDITIONAL FINANCING

Date(s)	Type	Amount Disbursed (US$M)	Key Revisions
16-Oct-2020	Portal	57.13	• Disbursement Arrangements
08-Apr-2024	Portal	168.58	• Components • Results • Loan Closing Date Extension • Reallocations
30-Jun-2024	Portal	190.63	• Loan Closing Date Extension • Implementation Schedule

KEY DATES

Key Events	Planned Date	Actual Date
Concept Review	26-Apr-2016	04-May-2016
Decision Review	04-Oct-2016	04-Oct-2016
Authorize Negotiations	19-Oct-2016	17-Oct-2016
Approval	09-Dec-2016	09-Dec-2016
Signing		20-Feb-2017
Effectiveness		17-May-2017
ICR/NCO	30-Jan-2025	--
Additional Financing Sequence.01	Not Applicable	27-Jun-2019
Restructuring Sequence.01	Not Applicable	16-Oct-2020
Restructuring Sequence.02	Not Applicable	08-Apr-2024

Restructuring Sequence.03	Not Applicable	30-Jun-2024
Mid-Term Review No. 01	04-Jul-2022	28-Jun-2022
Operation Closing/Cancellation	31-Jul-2024	31-Jul-2024

RATINGS SUMMARY

Outcome	Bank Performance	M&E Quality
Satisfactory	Satisfactory	Substantial

ISR RATINGS

No.	Date ISR Archived	DO Rating	IP Rating	Actual Disbursements (US$M)
01	31-Mar-2017	Satisfactory	Satisfactory	0.00
02	23-Oct-2017	Satisfactory	Satisfactory	5.11
03	04-Apr-2018	Satisfactory	Satisfactory	12.02
04	04-Oct-2018	Satisfactory	Satisfactory	22.49
05	29-Mar-2019	Satisfactory	Satisfactory	29.49
06	14-Sep-2019	Satisfactory	Satisfactory	37.36
07	10-Mar-2020	Satisfactory	Satisfactory	49.04
08	08-Sep-2020	Satisfactory	Satisfactory	56.64
09	09-Mar-2021	Satisfactory	Satisfactory	68.32
10	02-Sep-2021	Satisfactory	Satisfactory	79.40
11	03-Mar-2022	Satisfactory	Satisfactory	87.51
12	23-Aug-2022	Satisfactory	Satisfactory	107.70
13	27-Feb-2023	Satisfactory	Satisfactory	120.38
14	30-Aug-2023	Satisfactory	Satisfactory	144.46
15	08-Feb-2024	Satisfactory	Satisfactory	160.08

SECTORS AND THEMES

Sectors

Major Sector	Sector	%	Adaptation Co-benefits (%)	Mitigation Co-benefits (%)
FY17 - Water, Sanitation and Waste Management	FY17 - Public Administration - Water, Sanitation and Waste Management	5	0	0
	FY17 - Water Supply	95	0	0

Themes

Major Theme	Theme (Level 2)	Theme (Level 3)	%
FY17 - Private Sector Development	FY17 - Public Private Partnerships		9
FY17 - Urban and Rural Development	FY17 - Urban Development	FY17 - Urban Water and Sanitation	100

ADM STAFF

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I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES

A. CONTEXT AT APPRAISAL

Context

1. **At the time of appraisal in 2016, the Government of Côte d'Ivoire was focused on establishing a robust macroeconomic framework and implementing structural reforms to promote resilient, private sector-led growth.** Following years of political crisis from 1999 to 2011, the country experienced strong economic recovery, with gross domestic product growing at an average rate of 9.7 percent from 2012 to 2013. The Government introduced reforms aimed at improving the business climate, ensuring financial stability, and strengthening public governance and financial management (FM). In the water sector, the Government prioritized addressing urgent water shortages in urban areas outside Abidjan, aiming to mitigate social tensions arising from unmet postcrisis expectations for better living conditions.

2. **The Country Partnership Framework (CPF) 2016–2019[1] for Côte d'Ivoire focused on reducing disparities in access to basic services across different wealth groups and between urban and rural areas.** The CPF's second pillar specifically targeted improving access to essential services, including water and sanitation. This objective aligned with the country's National Development Plan (PND, *Plan National de Dévelopement*, 2016–2020), which sought to meet basic social needs by enhancing water and sanitation infrastructure. The project was designed to contribute directly to the World Bank's twin goals of eradicating poverty and fostering shared prosperity, particularly benefiting the poor.

3. **At the time of appraisal, Côte d'Ivoire's urban water supply faced significant challenges.** Access to piped water in urban areas was estimated at 70 percent of the population, with significant disparities between Abidjan (90 percent) and other urban centers (65 percent). While investments made between 2011 and 2016 by the Government and development partners had successfully closed Abidjan's water production deficit of 200,000 m^3 per day, 48 out of 354 water production centers in other urban areas continued to experience severe water shortages. The political crisis had also negatively affected the operational performance of the urban water supply sector, with key indicators such as nonrevenue water (NRW, 25 percent) and bill collection ratios (80 percent) lagging those of better-performing utilities in neighboring countries such as Senegal (20 percent and 98 percent, respectively) and Burkina Faso (18 percent and 98 percent, respectively).

4. **The urban sanitation situation was even more critical.** Only 33 percent of the urban population had access to sanitation services, with Abidjan faring slightly better at about 50 percent due to its extensive sewerage network, which was operated by the Water Distribution Company of Côte d'Ivoire (*Société de Distribution d'Eau de la Côte d'Ivoire*, SODECI) under a separate affermage contract. The National Sanitation and Drainage Agency (*Office National de l'Assainissement et du Drainage*, ONAD) had developed a strategy focused on preparing strategic sanitation master plans for secondary cities, improving on-site sanitation, supporting sludge haulers, and constructing sludge treatment plants.

5. **At the time of appraisal, Côte d'Ivoire's water sector faced significant legal and institutional challenges, affecting its efficiency and effectiveness.** The sector was governed by the 1998 Water Code, which prioritized water supply for the population and allowed private operators to manage services. The Ministry of Economic Infrastructure was responsible for planning and development, with some responsibilities delegated to the National Office of Drinking Water (*Office National de l'Eau Potable*, ONEP). Water services in urban and semi-urban areas were managed by SODECI through

[1] CPF for 2016–2019, report No. 96515-CI, discussed by the Board of Executive Directors on August 17, 2015, extended with the Performance and Learning Review (Report No. 122566-CI, discussed by the Board of Executive Directors on April 24, 2018).

a long-standing public-private partnership.[2] However, the institutional framework exhibited significant shortcomings compared to neighboring countries. ONEP lacked essential tools, such as a financial model and a comprehensive asset inventory, as well as adequate financial resources to fully execute its responsibilities. Moreover, the terms of the affermage contract with SODECI were not being strictly enforced, and clear performance objectives were not imposed on the private operator, weakening overall sector performance.

6. **The World Bank's intervention was justified by the urgent need to improve service levels outside of Abidjan and place the sector on a more sustainable footing.** At the time of project initiation, another multi-sector, emergency IDA intervention, the Infrastructure Renewal and Urban Management Project (*Projet de Renaissance des Infrastructures et de Gestion Urbain en Côte d'Ivoire*, PRECI)[3], was under way, which was a way to continue a much-needed engagement and included a scale-up of the water supply components from the previous intervention. During project appraisal, the key objectives were set to improve water access in secondary urban centers, provide the sector with the necessary tools to strengthen FM, and enhance the capacity of key stakeholders. This approach supported the Government's broader goals of improving living conditions and promoting economic growth while aligning with the CPF's objective of increasing access to essential services.

Theory of Change (Results Chain)

7. The Theory of Change (ToC) for the Cote d'Ivoire Urban Water Supply and Sanitation Project was developed for this ICR evaluation based on the project logical framework, including project development objective (PDO), project description, and Results Framework, described in the Project Appraisal Document and is summarized below.

Project Development Objectives (PDOs)

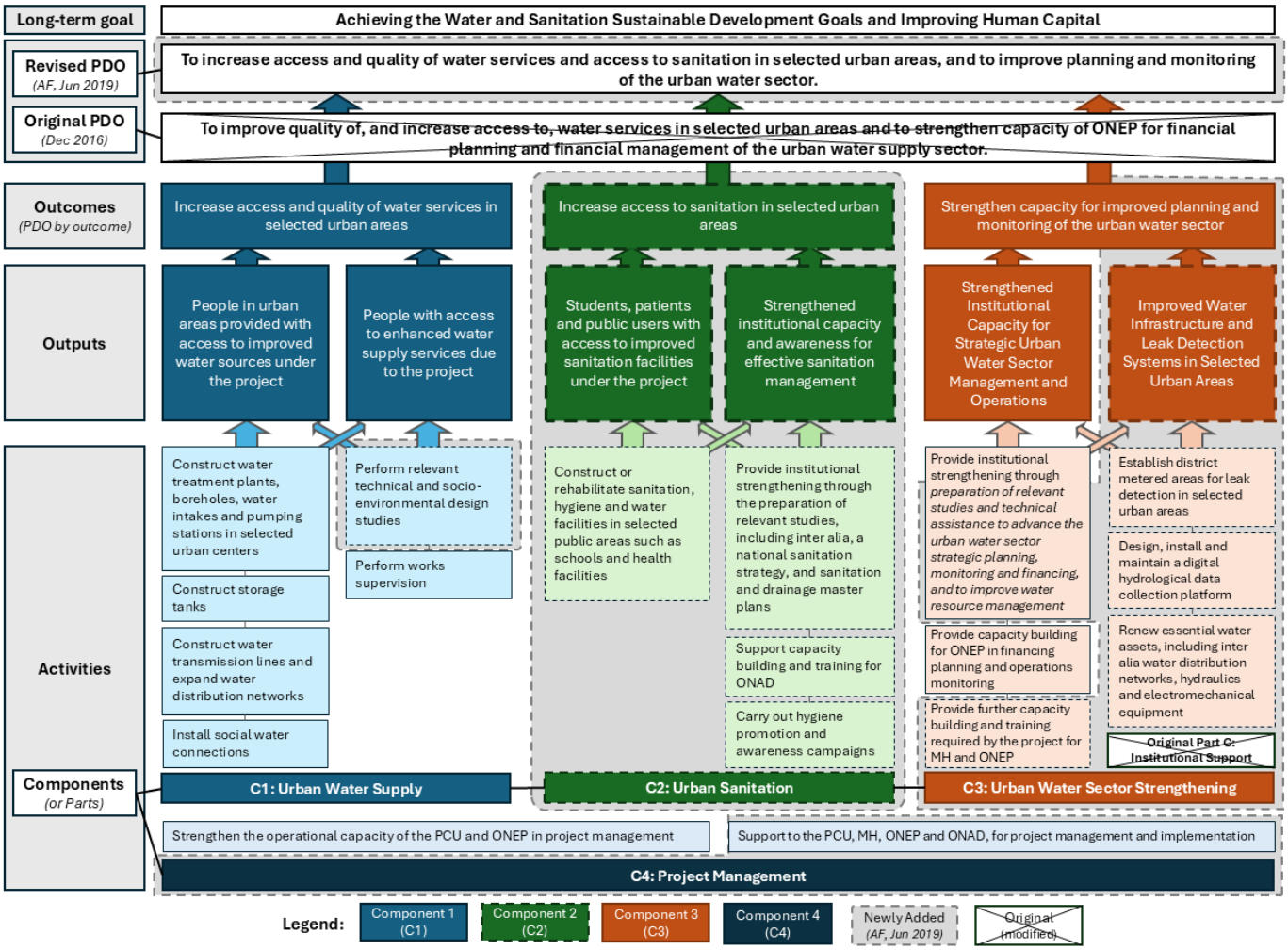
8. The original PDO, as stated in both the Loan Agreement and the Project Appraisal Document (PAD), was "to improve quality of, and increase access to, water services in selected urban areas and to strengthen capacity of ONEP for financial planning and financial management of the urban water supply sector."

Key Expected Outcomes and Outcome Indicators

9. The original PDO was structured around two objectives, disaggregated by corresponding outcome indicators:

- **Objective 1: Improve quality of, and increase access[4] to, water services in selected urban areas.**
  - Number of people in urban areas provided with access to 'Improved Water Sources' under the project
  - Number of people with access to enhanced water supply services due to the project
  - Number of direct project beneficiaries, of which female
  - Average hours of water supply in centers targeted by the project (hours per day).
- **Objective 2: Strengthen capacity of ONEP for financial planning and financial management of the urban water supply sector.**
  - Sector financial model used for financial planning and decision making (yes/no).

[2] ONEP is the Government's delegated contracting authority for the rural and urban water sector, responsible for planning, investments, and managing operator contracts. SODECI, through its leasing contract with the Government, operates and maintains water supply systems.
[3] Emergency Infrastructure Renewal Project (Projet de Renaissance des Infrastructures de Côte d'Ivoire, PRICI - P124715)
[4] Within the project, the aspects of increasing access and improving quality were combined because the project was a package (Treatment, storage and distribution including social water connections). This package made it possible to increase the number of people with access to water by improving services for all beneficiaries.



Intermediate Indicators (Added indicators via AF in red)

C1

- New piped household water connections resulting from the project intervention (Number)
- Inactive household connections re-activated in centers targeted by the Project (Number)
- Production capacity constructed under the project (Cubic Meter(m3))
- Water storage capacity constructed under the project (Cubic Meter(m3))
- Water transmission and distribution pipes constructed under the project (Kilometers)
- Number of people reached by local communication campaigns for the social connection program (Number)
- Improvement in beneficiaries' satisfaction (Percentage)

C2

- Number of schools benefiting from new/rehabilitated WASH facilities (Number)
- Number of health centers benefiting from new and/or rehabilitated WASH facilities (Number)
- Number of female students who gain access to menstrual hygiene management (MHM)-equipped WASH facilities at school (Number)
- National Sanitation Sector Strategy Approved (Yes/No)
- Number of sanitation and drainage master plans approved (Number)

C3

- Completion of the audit of contracts between Government, ONEP and SODECI (Yes/No)
- Completion of financial model (Yes/No)
- Completion of assets inventory (Yes/No)
- Number of hydrologic information collection and monitoring stations installed and operational (Number)
- Report on sector asset management monitoring available (Yes/No)
- A web-based sector M&E platform that uses digital technology is operationalized (Yes/No)
- District Meter Areas (DMAs) established in a pilot area in Abidjan water distribution network (Yes/No)

Critical Assumptions

- Newly constructed and rehabilitated water infrastructure will remain functional and well-maintained
- People will adopt and use improved sanitation facilities provided in public areas
- Strengthened institutional capacity will enable more effective management of water and sanitation services, supported by the committed leadership and adequate staffing of ONEP and ONAD.
- Long-term sector strategies are established and maintained in line with project objectives
- Peace and stability are maintained in project areas to allow delivery of materials, construction and supervision
- Social connection program as well as the hygiene promotion campaigns will effectively reach and influence the target audience

Components

10. **Component A - Urban Water Supply (Planned: US$45.64 million; Actual: US$155 million)**. This component included activities to improve water supply infrastructure in several urban centers:

- Construct water treatment plants, boreholes, water intakes and pumping stations in selected urban centers
- Rehabilitation and expansion of water production, storage tanks, and transmission facilities
- Expansion of water distribution networks
- Installation of social water service connections
- Technical studies and works supervision.

11. The component was broken down into subcomponents for eight selected urban areas: Tiassalé/N'Douci (US$5.04 million), N'Zianouan (US$2.71 million), Agboville (US$10.00 million), Korhogo/Ferkéssédougou (US$10.51 million), Bingerville (US$10.57 million), and Béoumi (US$4.77 million). Additionally, an amount of US$2.04 million was allocated for supervision and technical studies, which was meant to finance consulting services for the control and oversight of civil works as well as complementary technical studies.

12. **Component B - Institutional Support (Planned: US$4.36 million; Actual: US$20.6 million)**. This component included the following:

- Institutional strengthening activities such as audits, asset inventory, and financial modeling (US$1.29 million)
- Capacity building for ONEP in areas such as financial planning and operations monitoring (US$0.54 million)
- Support for project management, including operating costs, equipment, safeguards implementation, audits, and citizen engagement activities (US$2.54 million).

B. SIGNIFICANT CHANGES DURING IMPLEMENTATION (IF APPLICABLE)

Revised PDOs and Outcome Targets

13. To address continued water supply deficits in secondary cities and align with the its social program objectives, the Government of Côte d'Ivoire requested Additional Financing (AF) of EUR 133.8 million (US$150 million equivalent) from IDA to scale up the activities of the well-performing parent project. At the time of the AF, disbursements of the parent project were at 64 percent, and many indicators were already being met. A water crisis in the city of Bouake in May 2018, where the main water source dried up unexpectedly, alerted the authorities of the need to better plan for potential future water crises elsewhere in the country.[5] Moreover, the amount of the AF was initially US$50 million but was increased to US$150 million due to the availability of extra funding in the final year of the IDA cycle. The Government already had some designs for civil works that could be used for the AF and a project management team in place to prepare other studies.

14. The PDO was revised as part of this AF approved on June 4, 2019. The revised PDO at the time of the AF was, "To increase access and quality of water services and access to sanitation in selected urban areas, and to improve planning and monitoring of the urban water sector." Key changes to the outcome targets included (a) adding sanitation to the scope, (b) expanding the institutional focus from strengthening ONEP's capacity to improving overall sector planning and monitoring, and (c) significantly scaling up the total number of beneficiaries from 549,000 to 1,200,000. The revised outcome targets are detailed along with the revised PDO indicators in the next section under 'Revised PDO Indicators'.

[5] The water crisis in Bouake triggered a CERC intervention under the water component of the PRICI project.

Revised PDO Indicators per the 2019 AF

15. For Component A - Urban Water Supply, in line with the revised PDOs and the expansion of urban water supply, some indicator targets were increased as shown in Table 1.

16. For the newly introduced Component B - Urban Sanitation, a new PDO indicator was added: The number of students with access to improved sanitation facilities in schools (target: 90,000).

17. For Component C - Urban Water Sector Strengthening, the AF expanded on institutional support activities from the parent project, including the development of a strategic study to guide the creation of a water sector plan aligned with Sustainable Development Goal 6 (SDG6). To monitor this expanded scope, the following new indicator was introduced: Strategic Sector Plan towards SDG6 approved, with the target moving from 'no' to 'yes'.

Table 1. Details of Changes to PDO Indicators

Component	PDO Indicator	Change via AF
Component A	Average hours of water supply	Dropped
Component A	Direct project beneficiaries	Target increased • *Change in the End-of-Project Target (EOPT) value: increased from 549,000 to 1,200,000*
Component A	of which female (%)	No change
Component A	People in urban areas provided with access to improved water sources under the project	Target increased • *Change in the EOPT value: increased from 180,000 to 390,000 people*
Component A	People with access to enhanced water supply services due to the project	Target increased • *Change in the EOPT value: increased from 369,000 to 810,000 people*
Component B	Number of students with access to improved sanitation facilities in schools	Added • *EOPT value: 90,000 students*
Component B	Strategic Sector Plan towards SDG6 approved (yes/no)	Added • *EOPT value: Yes*
Component C	Sector financial model used for financial planning and decision making	No change
Component C	Strategic Sector Plan towards SDG6 approved (yes/no)	Added • *EOPT value: Yes*

Note: Reasons are explained below in 'Rationale of Changes and Their Implication on the Original Theory of Change'.

Revised Components per the AF

18. **Revised PDO indicators for Component A - Urban Water Supply *(scaled-up)*.** The AF aimed to scale up activities in the existing eight centers and expand to four new centers. In the existing centers, the AF was to finance the additional construction of water treatment plants, boreholes, water intakes, pumping stations, and storage tanks as well as the expansion of distribution networks. It also aimed to fund 13,000 new social water connections, doubling the targeted population. In the four new centers (Dabou, Issia, Niakara, and Songon), the AF aimed to finance similar infrastructure, as well as 8,000 new social connections, which added to the existing 13,000 connections under the eight centers.

19. **New PDO indicators for Component B - Urban Sanitation *(new component)*.** To address critical gaps in sanitation services in Côte d'Ivoire, a new component focused on urban sanitation was added via the AF. Key activities included (a) development of a new National Sanitation Strategy; (b) planning and development of sanitation and drainage master plans

in selected cities; (c) construction and rehabilitation of water, sanitation, and hygiene (WASH) facilities; and (d) hygiene education and awareness campaigns.

20. **Revised PDO indicators for Component C - Urban Water Sector Strengthening *(scaled-up)*.** This component built on and expanded institutional support activities from the parent project. New activities included (a) support to the Division of Hydrology for water resources management, including installation of 35 hydrological monitoring stations; (b) technical assistance (TA) to implement sector reforms and develop a strategic water sector plan; (c) piloting of NRW reduction approaches in Abidjan; and (d) implementation of new asset management approaches.

21. **Component D - Project Management *(new component)*.** The original project did not include a dedicated component for project management; instead, project management costs were embedded within the existing components. To enhance overall management and implementation, this new component focused specifically on project management costs for the Project Coordination Unit (PCU), ONEP, ONAD and the Ministry of Water. The overall share of the project management costs was reduced from 5.1 percent to 3.9 percent of the total project costs.

Other Changes

22. Four times of changes were made including AF and three additional restructurings included modifications to the scope and scale, implementation arrangements, implementation schedule, funding allocations, and reallocation among components. The details are included in the Annex 6.

Rationale for Changes and Their Implication on the Original Theory of Change

23. As a result of the initial success of the parent project and given the considerable needs for water and sanitation, an AF of US$150 million was approved by the Board on June 27, 2019. Tripling the original IDA financing was a testament of the country's ability to absorb funds and execute activities and reflected the World Bank's well-placed vote of confidence in the expanded potential of the project. The key rationales for these changes were as follows:

(a) **Expanding the water supply interventions.** Changes in Component A - Urban Water Supply focused on scaling up efforts to enhance water services in existing and new urban centers. There were already existing studies and a project implementation team, which showed the client's readiness and capacity to absorb extra funds. The AF aimed to reach a larger population by addressing gaps in water production, distribution, and service delivery, hence the focus on infrastructure development such as water treatment plants, boreholes, pumping stations, and storage facilities, alongside expanding distribution networks and installing social water connections to double the beneficiary population. In the newly added centers, similar investments aimed to improve production and storage capacities and expand access to safe water. These enhancements were designed to improve water security and living conditions, aligning with the original PDO.

(b) **Adding a sanitation component.** Component B - Urban Sanitation was introduced to address critical gaps in sanitation services in Côte d'Ivoire and to ensure the sustainability of water investments by addressing sanitation needs.[6] This component financed the development of a National Sanitation Strategy, incorporating technical, financial, institutional, and regulatory elements aligned with the Government's private sector engagement approach. It supported the creation of sanitation and drainage master plans for selected cities, covering the entire sanitation service chain. Additionally, it funded the construction and rehabilitation of WASH facilities in schools and health centers, incorporating feedback from female students

[6] Incorporating sanitation alongside water supply is critical because poor sanitation can contaminate water sources, undermining the benefits of water investments and posing significant health risks. Addressing sanitation needs ensures a holistic approach that protects water quality, enhances public health outcomes, and maximizes the long-term impact and sustainability of water infrastructure.

on MHM. Capacity building for ONAD and hygiene promotion campaigns were also included to enhance sanitation services and encourage behavior change, consistent with the project's broader objectives.

(c) **Strengthening sector planning and monitoring.** Component C sought to build upon the strategic foundation established by the parent project, which included developing a financial model and a water asset inventory. The TA under the AF supported policy and regulatory reforms, particularly in preparation of the next generation of affermage contracts with strengthened performance targets and incentives. In addition, the TA funded the deployment of advanced hydrological monitoring technologies and asset management tools, significantly boosting operational efficiency and reducing NRW.

24. The AF brought about key revisions to the TOC as follows: (a) the long-term development outcomes were broadened to include improved public health, enhanced human capital, and increased climate resilience; (b) the project objectives were expanded to encompass increased access to sanitation and improved sector planning/monitoring, in addition to water supply improvements; (c) new activity and output chains were added related to sanitation investments, water resources management, and sector performance monitoring; and (d) the Results Framework was updated with new indicators to capture the expanded scope, particularly for sanitation access and sector planning outcomes.

25. As summarized in the Annex 6, the closing date for the project was initially revised from June 30, 2022, to April 30, 2024, through the AF. Subsequently, it was extended twice more. The second extension moved the closing date from April 2024 to June 29, 2024. This second extension was necessitated by unexpected heavy rains that delayed crucial tasks, particularly scaffolding removal and other technical finishes on the Issia Water Complex before handing it over to SODECI for operation. To address reputational and safety risks associated with incomplete work, the closing date was further extended to July 31, 2024. However, these extensions did not affect the overall project outcomes or the total operating costs, as they were solely focused on ensuring the last-mile completion of the remaining activities.

II. OUTCOME

A. RELEVANCE OF PDO

Assessment of Relevance of PDOs and Rating

Rating: High

26. **The project's objectives remain highly consistent with the current CPF of FY23–27 (Report No. 178156, discussed by the Board of Executive Directors on November 18, 2022), which was in effect at the close of the project.** Table 2 summarizes the project's alignment with the CPF.

Table 2. Alignment between the CPF FY23–FY27 and the PDO

CPF High-Level Outcome	CPF Objective	PDO Alignment
High-Level Outcome 1 - Improved human capital	CPF Objective 2: Expand equity of, and access to, improved quality basic services, particularly for youth and women	Improve access to water services, which contributes to human capital development by enhancing health through improved water supply and sanitation in schools.
High-Level Outcome 2 - Reduced spatial disparities and strengthened resilience	CPF Objective 5: Improve sustainable management of natural capital	Strengthen the institutional capacity for water resource management, ensuring sustainable and equitable management of water resources.

B. ACHIEVEMENT OF PDOs (EFFICACY)

Assessment of Achievement of Each Objective/Outcome

Rating: Substantial

27. The PDO was structured around three objectives: (a) to increase access and quality of water services, (b) to provide access to sanitation in selected urban areas, and (c) to improve planning and monitoring of the urban water sector. As detailed in the 'Quality of Monitoring and Evaluation (M&E)' section, progress was tracked through data collected and reported by the PCU. These data were verified by the World Bank team through regular implementation support missions, field visits, and dialogue with the PCU team, including the M&E staff, throughout the implementation period. Two satisfaction surveys were also conducted among households, halfway through and at the end of the project. These surveys made it possible to see the performance of the project and the lessons learned. At the end of the project, a completion survey was organized to see the impact of the project on the beneficiaries.

Objective 1: Increase Access and Quality of Water Services in Selected Urban Areas

28. Objective 1 was measured using three primary PDO indicators, one sub-PDO indicator, eight intermediate indicators, and two sub-intermediate indicators, as shown in annex 1. A split rating of efficacy is not required because the scope of the project was expanded: sanitation was added as a separate component, water supply coverage was increased to target broader access, and the project went beyond financial planning and management for ONEP to include broader planning and monitoring responsibilities for both water and sanitation services across ONEP and ONAD.

29. Objective 1 of the project achieved high success, with most outcomes exceeding initial targets. For the number of people in urban areas with access to improved water sources under the project, 490,000 beneficiaries were reached compared to the planned target of 390,000, representing 126 percent achievement. This indicator captures the number of people who gained access to improved water sources through new social connections or the reactivation of inactive connections, calculated by multiplying the total number of connections by an average household size of 10 persons. Similarly, for the number of people with access to enhanced water supply services, the project reached 1,493,330 beneficiaries compared to the planned target of 810,000, achieving 184 percent of the goal. This indicator measures the cumulative number of people transitioning from poor-quality water supply to reliable services with improved continuity and sufficient pressure. The success is mainly attributed to infrastructure improvements, including the commissioning of new water treatment facilities, which enhanced water services for 149,333 active subscribers in urban centers.

30. Some indicators came close to, but did not fully meet, the target. This includes increased production capacity which came up to 85,960 m^3/day, meeting 93 percent of the 92,000 m^3/day target. This lower percentage is due to the transfer of three cities (Dabou, Songon, and Niakara) to the recently approved Côte d'Ivoire Water Security and Sanitation Support Program (*Projet d'Appui à la Sécurité de l'Eau et de l'Assainissement,* PASEA) due to budget shortfalls under the Urban Water Supply and Sanitation Project (*Projet de Renforcement de l'alimentation en Eau potable en Milieu Urbain*, PREMU), as outlined in the Annex 6. This transfer occurred during the project's second restructuring, but the production capacity target was not adjusted accordingly. This misalignment will be further analyzed in the 'Quality of Monitoring and Evaluation (M&E)' section below.

31. The beneficiary satisfaction rate increased from a baseline of 37.4 percent to 90 percent, surpassing the target of 80 percent. While quantitative targets for access were robustly achieved, the satisfaction survey (April 2024) highlights a gap in service quality despite the increased access, underscoring the need for a more comprehensive qualitative assessment. Additionally, the beneficiary calculation method—using a standard of 10 people per connection—may not reflect actual household sizes across project areas, which could affect the accuracy of beneficiary reporting. Despite the strong quantitative outcomes, the lack of tariff reform (the last adjustment was made in 2023) raised questions about

sustainability, particularly regarding long-term maintenance and operational viability. Capacity-building initiatives for ONEP and ONAD appear promising; however, continuous user satisfaction assessments through project surveys will be critical to confirming long-term service continuity. The new project, PASEA, will support this effort.

Objective 2: Increase Access to Sanitation in Selected Urban Areas

32. Objective 2 was measured using one PDO indicator and five intermediate indicators, as shown in Annex 1.

33. The project achieved or exceeded all of its sanitation and WASH targets. The number of students with access to improved sanitation facilities in schools reached 95,256, surpassing the target of 90,000 by 6 percent. The initiative to provide new or rehabilitated WASH facilities in schools also outperformed expectations, benefiting 267 schools against a target of 250, thus achieving 106 percent of the goal. Additionally, the project successfully met its target for health centers by equipping all 50 centers with new or rehabilitated WASH facilities. A particularly remarkable accomplishment is the provision of MHM-equipped WASH facilities for female students, which reached 42,632 beneficiaries—an astounding 474 percent of the initial target of 9,000. It should be noted that at the time of the AF, this activity was new for the ministry and there was no strong experience on implementing WASH projects; therefore, the target was deliberately conservative.

34. The approval of the National Sanitation Sector Strategy is another critical milestone, indicating substantial progress in establishing a comprehensive policy framework aimed at enhancing national sanitation efforts. The strategy has also informed the design of the full sanitation service chain approach under PASEA, with a mix of household latrines (on-site sanitation), supporting emptiers and masons, building fecal sludge treatment plants, and piloting reuse. Furthermore, the project exceeded its target for sanitation and drainage master plans, with seven plans approved instead of the targeted five, representing 140 percent achievement. Finally, MINHAS introduced guidelines for WASH facilities, such as separate latrine blocks for students and teachers, gender segregation, menstrual hygiene modalities in girls' latrines, and disability-friendly facilities. This success illustrates a thorough and strategic approach to urban sanitation planning that aligns with broader public health objectives.

35. One limitation of the Results Framework associated with Objective 2 (Component B) is that the PDO-level indicator only measures the number of students with access to improved sanitation facilities. This narrow focus excludes other key beneficiaries, such as patients in health centers, the general public, and school staff, such as teachers and instructors. However, it could be noted that when the WASH activities began, it was a new approach, and there was a need to pilot WASH for a small set of beneficiaries first before taking a broader approach. In the new project, PASEA, a more comprehensive approach is being taken with WASH for all users in schools, drawing on the lessons from PREMU.

Objective 3: Strengthen Capacity for Improved Planning and Monitoring of the Urban Water Sector

36. Objective 3 was measured using two PDO indicators and seven intermediate indicators, as shown in Annex 1.

37. The project successfully achieved all its targets for enhancing the planning and monitoring capacity of the urban water sector. Key accomplishments include the implementation of a sector financial model, which is now actively utilized for financial planning and decision-making, particularly in the current negotiation for a new affermage contract that started in October 2024. The approval of a Strategic Sector Plan aligned with SDG6 further strengthens long-term planning capabilities, facilitating sustainable improvements in water services that also complement the outcomes of Objectives 1 and 2. Moreover, the SDG6 Strategy was the basis for the development of the multiphase programmatic approach (MPA), which was prepared while PREMU was still under way. Because the strategy included detailed actions and a costed plan for achieving water and sanitation access, it proved to be a crucial resource—and justification—for the World Bank to commit to the MPA. PASEA was approved in May 2024 and is now under implementation.

38. All intermediate indicators related to the capacity-building objective were met at 100 percent. The completion of audits for contracts between the Government, ONEP, and SODECI fostered transparency and accountability, enhancing stakeholder trust. An inventory of sector assets was also finalized, serving as a vital resource for optimizing existing water infrastructure and identifying future investment needs. The asset inventory will feed directly into the creation of ONEP as an asset-holding company, a component integrated in the new MPA, PASEA. Additionally, the installation of 35 hydrologic stations is expected to boost the data collection capabilities of the National Hydrology Department, which are essential for effective long-term water resource management. The impact of the initial 35 stations convinced the department to scale up and build additional hydrological stations under PASEA. Other positive impacts of the capacity-building efforts include South-South technical visits to Tunisia (on NRW for ONEP) and to Senegal (for sanitation, for water ministry officials), among others.

39. The project also carried out several studies to improve knowledge and ensure sustainable mobilization and use of water resources: (a) assessment and mobilization study of the Dabou and Niéky aquifers, (b) technical studies on the vulnerability of the Abidjan aquifer to lagoon sand extraction activities, (c) study of raw water quality and environmental assessment of 36 water reservoirs of dams intended for drinking water supply, and (d) master plan for drinking water supply in Greater Abidjan up to 2045. These studies are important for the sustainability of the water investments, as understanding the underlying resource is essential for planning services.

40. While all PDO-level and intermediate indicators were met at 100 percent, their binary (Yes/No) or purely quantitative nature may limit the insights gained from them. For instance, the indicators confirm the successful installation of hydrologic information collection and monitoring stations, which are fully operational. However, addressing the long-term assessment of how these stations improve water resource management over time will be critical for future engagements in Côte d'Ivoire's water sector. Additional surveys could be conducted under PASEA, which is also planning to develop hydrologic stations and will build on lessons learned from the similar intervention in PREMU. The surveys could help evaluate the effectiveness of these stations, and their actual impact on stakeholder needs would provide valuable insights as a midterm action following project completion. Capacity training has also been provided for utilizing these stations, as confirmed by interviews conducted during the last implementation mission in June 2024.

41. **Justification of Overall Efficacy Rating.** The overall efficacy of the project is rated Substantial, reflecting significant achievements across all three objectives. Although minor flaws in indicator design were noted, as outlined above, Objective 1 demonstrated substantial success in increasing access to water services, with all key indicators surpassed. Objective 2 also achieved all targets for enhancing sanitation access, particularly for female students. Finally, Objective 3 was rated High, successfully strengthening the planning and monitoring capacity of the urban water sector through the development of a financial model and a Strategic Sector Plan aligned with SDG6. While there were minor shortcomings in indicator design and qualitative assessments, the overall positive outcomes justify a Substantial rating for efficacy.

C. EFFICIENCY

Assessment of Efficiency and Rating

Rating: High

42. The efficiency of PREMU is rated High, based on the following factors:

43. **Economic analysis.** The ex post economic analysis demonstrates that the project achieved significantly better results than initially projected (Table 3).

Table 3. Summary of Ex Post Economic Analysis

Indicator	PAD	Financing Agreement (FA)	Ex Post
Economic internal rate of return (EIRR) (%)	7.03	10.97	15.98
Net present value (NPV) discounted at 6% (US$, millions)	5.50	44.12	80.23

44. The project's EIRR of 15.98 percent and NPV of US$80.23 million at 6 percent discount rate substantially exceed the initial estimates. This improvement is attributed to several key factors:

- **Project restructuring in April 2024.** The restructuring involved refocusing resources on high-impact areas and eliminating less-efficient components, resulting in better overall project performance. This strategic decision optimized impacts while reducing implementation costs.
- **Expanded scope of benefits.** The ex post analysis incorporated a wider range of socioeconomic impacts, which contributed 33 percent to the total ex post NPV. These benefits include reduced health expenditures due to decreased waterborne diseases, improved school attendance, and increased time availability for productive activities, especially for women and girls previously responsible for water collection.
- **Cost-effective implementation** The project's actual investment costs for water supply were CFAF 57.113 billion (approximately US$92 million), significantly lower than the estimated CFAF 67.923 billion (approximately US$110 million). This cost reduction contributed to the improved economic performance.

45. The financial internal rate of return (FIRR) also improved significantly, reaching 11.9 percent compared to 1.4 percent at appraisal. This substantial increase indicates a strong positive impact on SODECI's financial results, demonstrating the project's contribution to the financial sustainability of the water utility. The main drivers of SODECI's financial results were the incremental revenue from increased water sales and improved service to existing subscribers. The project facilitated the creation of over 40,000 new connections and improved water services for 1,493,330 existing subscribers. This led to a significant increase in SODECI's drinking water revenue. The project also provided 49,000 social connection kits, directly connecting 490,000 inhabitants and improving water services for around 2,000,000 people. These enhancements translated into additional income for SODECI and ONEP, thereby consolidating their financial viability. The pilot project for reducing NRW in Koumassi further contributed to SODECI's operational performance, albeit with a marginal impact on the company's overall turnover.

46. **Implementation Efficiency.** The project demonstrated strong implementation efficiency:

- **Legal compliance.** Not only were all legal covenants respected within 18 months of effectiveness, but the resettlement action plan was fully executed within that time frame and civil works were able to begin.
- **Cost management.** The project was completed at a total cost of US$192.83 million, below the planned US$200.16 million, resulting in a surplus of CFAF 531 million (approximately US$0.86 million). This cost saving was achieved through careful resource allocation and efficient procurement practices.
- **Disbursement rate.** Within a year of effectiveness of the parent project, the project had disbursed 22 percent, and within two years, disbursement was at 57 percent, far above initial projections. The disbursement rate was 64 percent at AF approval. The project achieved a 96.4 percent disbursement rate, with 100 percent for the initial financing and 96.35 percent for the AF. This high disbursement rate indicates efficient and effective fund utilization and project management.
- **Procurement efficiency.** The project's adherence to the Bank's procedures resulted in better price-quality ratios. This approach ensured that resources were used optimally, contributing to overall cost savings.

- **Timely execution.** Most activities were completed within the required time frames, despite some pending payments at project closure which were eligible for processing during the grace period. The project team effectively managed implementation schedules, minimizing delays and associated costs.
- **Expanded impact.** The project provided improved water supply services to 1,493,330 people (184 percent above the final target) and improved sanitation facilities to 95,256 students (106 percent of the final target). This overachievement demonstrates the project's ability to maximize its reach and impact within the given resources.
- **Adaptive management.** The project team successfully navigated challenges such as the COVID-19 pandemic and Russia's invasion of Ukraine, which affected material costs and slowed down implementation. It responded by adjusting the project scope, focusing on high-priority areas while maintaining overall project objectives.

D. JUSTIFICATION OF OVERALL OUTCOME RATING

Rating: Satisfactory

47. The overall outcome rating for PREMU is Satisfactory. This rating is based on the project's high relevance to country priorities and World Bank strategies, substantial efficacy in achieving its objectives, and high efficiency in implementation and economic returns. The project demonstrated strong alignment with development goals, exceeded most targets for water and sanitation access, and showed significant improvements in sector planning and monitoring. Although minor shortcomings were noted in indicator design, they do not detract from the project's overall success. A split rating is unnecessary, as the project's scope broadened significantly during implementation rather than narrowed, as outlined in the previous sections.

Table 4. Summary of Outcome Ratings

Section	Rating
Relevance of Objectives	High
Efficacy	Substantial
Efficiency	High
Overall Outcome Rating	**Satisfactory**

E. OTHER OUTCOMES AND IMPACTS (IF ANY)

Gender

48. PREMU incorporated multiple strategies to address gender gaps and promote women's empowerment. For example, the sanitation component included the design of school WASH facilities with direct input from female students, ensuring that these facilities met girls' needs for MHM. This initiative is expected to have long-term benefits, such as improved school attendance and educational outcomes for girls. As mentioned in Efficacy section, The project reached 42,632 female students, exceeding the initially targeted 9,000 students for MHM-equipped facilities.

49. To assess gender inclusivity, the Results Framework set a target of 48.7 percent female beneficiaries, corresponding to the average female population ratio in the targeted urban areas. The project came close to achieving this goal, reaching 48 percent female beneficiaries. Additionally, the project's citizen engagement strategy emphasized collecting feedback from women and other vulnerable groups. While reduced water collection time for women and girls wasn't a tracked indicator, interviews at the Issia Water Complex in June 2024 confirmed its positive impact. Additionally,

no gender-based violence (GBV) incidents were reported, and feedback from female construction workers and young women indicated positive experiences.

Mobilizing Private Sector Financing

50. While mobilizing private sector financing was not a direct objective of the PREMU project, it was a key long-term goal for sustainable sector financing. The project aimed to enhance the financial viability and commercial sustainability of Côte d'Ivoire's urban water sector to attract private investment. It strengthened the institutional and regulatory framework, improved financial management, and enhanced ONEP and ONAD's operational efficiency. The project developed a financial model for the sector and conducted an audit of existing contracts of SODECI, which will both support the Government and ONEP's negotiations with the incumbent operator for a new affermage contract that is being negotiated. The water supply and WASH infrastructure investments were also financed to expand access and improve service quality. The project laid essential groundwork for increasing commercial financing and private sector participation in Côte d'Ivoire's urban water services, supporting the follow-up engagement through the now-approved MPA, PASEA.

51. Technical assistance was provided to support the negotiation of a new affermage contract with SODECI, aimed at strengthening Côte d'Ivoire's urban water sector. With the previous contract that expired in December 2022, a new agreement was critical to enhancing regulation and monitoring in the sector. To this end, a consulting firm was engaged in October 2023 to assist the government throughout the negotiation process. The firm prepared a draft contract, which was submitted for government review and is currently being used for negotiations. The technical assistance is continuing under the PASEA project (the affermage contract has not yet been finalized as of December 2024).

Other Unintended Outcomes and Impacts

52. Although not captured by project indicators, the implementation of the project resulted in some unexpected positive outcomes. First, the need for electricity to power water pumps and related equipment led to improved electricity access for nearby villages. As the project required reliable power sources for its water supply infrastructure, the electrical grid was extended or reinforced, inadvertently benefiting the surrounding communities.

53. Second, while they were not directly measured, it is expected that waterborne diseases have decreased in the project areas, especially in locations where water was previously fetched from contaminated or unsafe sources. Improved access to clean water likely reduced exposure to such contaminants, potentially leading to a decline in the incidence of waterborne illnesses among the local population. This is especially significant given that 1 in 13 children in Côte d'Ivoire dies before the age of five, resulting in a child mortality rate of 7.9 percent annually, according to the United Nations Children's Fund. Additionally, beneficiaries of sanitation facilities in schools and health centers experienced overall improvements in hygiene, further contributing to public health outcomes. The project is also expected to have reduced the time spent fetching water, particularly for women and girls, as briefly explained in the gender section above, which positively affected their daily lives and responsibilities.

54. Most importantly, PREMU played a critical role in laying the foundation for the broader MPA–PASEA, a US$825 million operation approved in May 2024. By addressing the immediate needs of urban water supply and sanitation, PREMU set the stage for scaling up to include water resource management and a holistic approach to the water cycle, driving long-term sector improvements. The strengthened Project Implementation Unit, having gained valuable experience with the World Bank procedures through PREMU, efficiently prepared PASEA. This continuity ensured a smooth transition to the expanded program, advancing the goal of sustainable water management and service delivery in Côte d'Ivoire.

III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME

A. KEY FACTORS DURING PREPARATION

55. **At appraisal, the PDO was realistic and clearly focused on two key goals: improving water services in selected urban areas and strengthening ONEP's capacity in financial planning and management of the urban water sector.** The project had a relatively simple design with two main components—urban water supply infrastructure investments and institutional support. It responded to the Government's desire to move beyond emergency response projects such as the multi-sector operation, PRICI, to a sector-specific approach. At the same time, the availability of extra funding from IDA in FY 2020, plus the strong performance of the parent project, allowed the AF to be approved. The components had a clear operational logic aligned with the objectives. The Results Framework included indicators that were aligned with the project objectives, with baselines and targets specified. For example, it tracked the number of people provided with improved water sources and the use of a sector financial model. The project targeted urban areas facing water shortages and low access rates, aiming to benefit about 549,000 people through improved and expanded water services.

56. **During the AF preparation, some PDO indicators required refinement to enhance clarity and ensure accurate measurement of outcomes.** The PDO-level indicator 'Average hours of water supply in centers targeted by the Project', part of the original project design, was dropped during the AF process. The AF documents, along with interviews with the original Task Team Leaders (TTLs) and PREMU stakeholders, including ONEP, revealed that this indicator was originally intended to measure improvements in the continuity of water supply in targeted centers, with an aspirational goal of reaching 24/7 service. However, the baseline assumption of 24/7 service was misaligned with the actual conditions at the time. The project's primary objective was to enhance continuity through increased water pressure and technical improvements in specific distribution areas (thus improving continuity of the services) rather than guaranteeing 24/7 service to all connected households. These general improvements of continuity were already reflected in the broader indicator, 'number of people with new and enhanced access to water services', which captures the tangible benefits of consistent water supply to a larger population. Additionally, the AF introduced new PDO indicators to address sanitation and institutional aspects, necessitating a streamlined Results Framework to maintain focus and clarity. While the 'average hours of water supply' indicator initially suggested a target based on hours of service, this proved to be a flawed metric that did not align with the project's original intention of measuring continuity. Its removal corrected this misalignment while maintaining the project's commitment to improving service delivery and expanding access to water. Some additional indicators were also clarified during the AF; for example, the indicator measuring people reached by communication campaigns was defined as covering individuals rather than households. The user satisfaction indicator was clarified to include both customers of the water utility (SODECI) as well as households without existing water connections.

57. **The project's M&E system was strengthened to address initial gaps in data collection and analysis.** At the outset, the M&E framework lacked tools for capturing detailed and timely information. To resolve this, the project team collaborated with ONEP to design a more robust system that included digital tools, such as mobile applications and data dashboards, enabling real-time data collection and centralized monitoring of key indicators such as water supply coverage and infrastructure performance. These enhancements allowed for more accurate reporting, faster identification of challenges, and better-informed decision-making, ultimately improving project management and accountability.

B. KEY FACTORS DURING IMPLEMENTATION

58. **Throughout the project's implementation, strong government commitment and effective coordination were central to ensuring the project's progress and success.** By adding US$150 million to project financing, the AF tripled the initial amount (US$50 million) to US$200 million, which posed an opportunity and a challenge in terms of absorbing and executing on the funds. From the outset, the Government demonstrated a clear commitment to the project's objectives,

as outlined in the original PDO of the parent project and further emphasized in the AF, which focused on strengthening both the technical and financial capacity of ONEP, and on clearly defining the roles and responsibilities between ONEP and SODECI. This clarity in roles was critical, especially in relation to the affermage contract, which underpinned the project's success. Regular coordination meetings among stakeholders helped ensure alignment and timely decision-making.

59. **However, certain elements initially designed were adjusted during implementation due to miscalculations or factors that were not foreseen during preparation.** For example, cost overruns in various project towns led to scope changes, particularly when it was discovered that the proposed water supply works would exceed original estimates by US$42.5 million. This resulted in the transfer of the towns of Niakara, Dabou, and Songon to PASEA. Additionally, the Kafiné dam in Niakara faced unexpected challenges due to degradation and high rehabilitation costs. The inclusion of Abongoua in the project was another adjustment made to address immediate local water access needs. These changes were not necessarily driven by government demands or uncontrollable external causes during implementation, suggesting potential areas for improvement in the design of the indicator setup, Results Framework and M&E system.

60. **During implementation, the project adapted to address urgent local needs and shifting priorities.** At the Government's request, the town of Abongoua in the eastern region was included in the project to meet immediate water access needs. This modification remained consistent with the project's broader development goals and reflected the Government's focus on addressing local priorities. The project's adjustments to financial constraints and changing local demands indicate the importance of ongoing stakeholder engagement and effective coordination with the Government to meet the project objectives.

61. **The effectiveness of project oversight was strengthened by the World Bank's comprehensive supervision efforts throughout the project lifecycle.** A total of 12 formal supervision missions were conducted, ensuring consistent monitoring and support. Although the TTLs changed twice during the project's lifetime, effective handover processes maintained continuity in project management. The project team demonstrated a strong commitment to reporting, producing 15 Implementation Status and Results Reports during the project period, with the Overall Implementation Progress and Progress towards Achievement of PDO consistently rated Satisfactory. Additionally, the World Bank team ensured timely submission of all required financial and audit reports, contributing to transparency and accountability. A midterm review was conducted, leading to restructuring and additional financing to better align with the project objectives.

62. **The COVID-19 pandemic significantly affected project implementation, particularly from March 2020 to late 2021.** In response to the COVID-19 pandemic, the Government of Côte d'Ivoire, through MINHAS, urgently requested CFAF 3 billion (approximately US$5.4 million) in emergency funds from the World Bank to strengthen the WASH sector. The sharp rise in the US dollar-XOF exchange rate post the signing of the FA allowed for an increase in the XOF envelope, generating additional resources to support the emergency action plan. Key initiatives implemented included the delivery of 15 drinking water tankers to ONEP to mitigate water supply interruptions, the installation of 12 standpipes in public areas, and the provision of 5,000 social water connections in high-prevalence COVID-19 zones. Additionally, 50 km of polyvinyl chloride pipes were installed to reconnect households cut off from water services, and an awareness campaign was launched to distribute protection kits against COVID-19 across 224 rural localities, in collaboration with MINHAS. Despite the pandemic causing delays in certain project activities—such as the design studies for a drinking water supply system in Issia—these COVID-19 response actions were effectively integrated into the existing project structure and budget, leveraging exchange rate gains to ensure the original project objectives remained intact while addressing the urgent health crisis.

63. **In June 2024, unusually heavy rains affected the final stages of the Issia Water Complex construction.** This complex, part of the water investments included in the 2019 AF, faced delays primarily due to the heavy rains that hindered the removal of scaffolding around the water tower. To effectively address this issue and mitigate reputational

risks, the project team extended the project closing date by one more month to July 31, 2024, ensuring that all work was completed within the project time frame. This extension facilitated the completion of scaffolding removal and additional finishing touches. An implementation plan was developed, outlining specific deadlines for scaffolding removal, complex finishing work, and installation of electricity meters. ONEP oversaw these final steps, while the World Bank closely monitored progress through daily checks on electricity connections and every three days for other tasks, ultimately ensuring the project's successful completion.

IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME

A. QUALITY OF MONITORING AND EVALUATION (M&E)

M&E Design

64. The M&E design for PREMU demonstrated both strengths and areas for improvement in tracking implementation progress and capturing project outcomes. Although a formal Theory of Change was not created for the parent project, the results chains of both the parent project and the AF were generally clear, aligning the inputs and activities with the intended outputs and outcomes. However, specific elements of the results chain—particularly those addressing long-term impacts of enhanced water and sanitation services—could have been defined with greater precision. Although this was a small-scale pilot where NRW reduction is difficult to quantify, alternative metrics, such as the number of leaks identified and resolved, could offer more valuable insight of its intended results. On the other hand, at the time these indicators were introduced, especially on NRW, a conservative approach was taken because of the long-term impacts that would probably be felt beyond the project closing (and hence would not be measurable).

65. Additionally, as mentioned briefly in the Outcome section, the PDO-level indicator for Component B measured only the number of students with access to improved sanitation facilities, excluding other significant beneficiary groups, such as patients in health centers, school staff, and the broader community. Although intermediate indicators captured essential project results under Component B, future M&E frameworks including under PASEA might consider broader PDO-level indicators to fully represent sanitation initiatives' impacts, including hygiene promotion, capacity building for ONAD, and potential effects on student performance associated with improved WASH facilities. Throughout implementation, some indicators required clearer definitions to enhance consistency and reduce ambiguity. For instance, communication campaign targets were initially defined ambiguously as 'households' but quantified as 'individuals'. Although adjustments were made through the AF, refining M&E design at the preparation stage or pre-appraisal stage would help ensure a more accurate representation of target populations, enabling a transparent and inclusive assessment of outcomes across all beneficiary groups.

M&E Implementation

66. The M&E system was effectively implemented throughout the project period, with annual data collection and reporting for most indicators ensuring consistent progress tracking. Data sources included progress reports, activity reports, and satisfaction surveys, reflecting a diverse approach that enhances data reliability. Responsibilities for data collection were clearly delineated, with key roles played by entities such as SODECI, ONEP, and the PCU. The successful establishment and utilization of a new web-based M&E platform, introduced through the AF, further improved efficiency in tracking results and increased transparency, as noted by the PCU's M&E team.

67. However, some challenges were noted during the internal workshop of the last implementation mission in June 2024, where the World Bank task teams and the PCU identified inconsistencies in complaint registration data, highlighting areas for improvement in data quality assurance. Additionally, under Component B, the scope of indicators changed from an initial estimate of 375 schools to 250 due to miscalculations regarding pupil numbers per class. The original estimate

assumed 40 pupils per class across six classes per school to reach 90,000 pupils. Subsequent evaluations revealed an average of 60 pupils per class, necessitating a recalibration of the target to 250 schools. This adjustment, made during restructuring 2 (April 2024), emphasizes the need for accurate data estimation and proactive engagement by the World Bank task teams to monitor and adjust targets as needed to ensure accurate reflection of results during implementation.

M&E Utilization

68. The M&E system was actively utilized to support project management and decision-making, with project flexibility demonstrated in response to M&E findings, such as adjusting project scope in light of cost overruns. M&E data played a central role in restructuring and AF decisions, helping align the project more closely with its objectives. Additionally, the financial model developed under the project, tracked as an M&E indicator, provided valuable insights for discussions on financial equilibrium within the water sector. The project also made use of innovative practices, such as developing a detailed report on sector asset management practices to improve tracking of infrastructure, while the operationalization of a web-based M&E platform allowed for real-time performance tracking of project activities[7].

Justification of Overall Rating of Quality of M&E

Rating: Substantial

69. The overall quality of M&E for this project is rated Substantial, reflecting a well-designed Results Framework with clear, relevant, and diverse indicators, alongside effective implementation of data collection and reporting processes. Evidence of M&E data utilization in informing project management and strategic decisions further justifies this rating. While there were moderate shortcomings—such as inconsistencies in data collection and some indicators not fully achieved or modified—these did not significantly impact the system's overall effectiveness.

B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE

70. **Environmental and social (E&S) safeguard compliance.** The project was classified under environmental category 'B', signifying moderate yet manageable E&S risks. The project triggered three key safeguard policies—Environmental Assessment (OP 4.01), Physical Cultural Resources (OP 4.11), and Involuntary Resettlement (OP 4.12)—prompting the preparation of several management instruments, including an Environmental and Social Management Framework, a Resettlement Policy Framework, seven Environmental and Social Impact Assessments, 36 Environmental and Social Management Plans (ESMPs), and eight Strategic Environmental and Social Assessment reports. Throughout implementation, E&S screening was conducted for 36 activities. Out of these, 7 activities were classified as category B, requiring detailed ESMPs, while 29 were categorized as C, requiring simpler mitigation approaches. The ESMPs were dutifully implemented across all activities, with regular quarterly monitoring reports produced to track compliance. In terms of results, while the project did face its fair share of challenges, including 243 recorded workplace injuries (mostly minor) and 92 incidents involving damage to utility cables or pipes, it also managed to create over 1,500 jobs, thereby contributing positively to local employment. These achievements highlight the project's balanced approach to managing E&S risks, though it did not emerge unscathed.

71. The project has taken proactive steps to address GBV as part of its social safeguards strategy. Monitoring and implementation committees in Buyo and Issia were sensitized on GBV complaint-handling procedures. Additionally, the nongovernmental organization (NGO) Elityc, responsible for social monitoring, appointed its head of mission as the project's focal point for processing and referring GBV cases and supporting victims. During the project, 128 complaints had been recorded and processed, covering 80 related to social connections, 26 linked to initial PREMU works, and 22 associated with additional PREMU activities. However, concerns were raised about the reliability of the data, as some

[7] Link to the project platform : https://yatamala.net/suivipremu/.

reports showed inconsistencies in complaint registration. The project's grievance management mechanism has undergone updates, including a revision of the manual and a reduction in the budget from CFAF 110,000,000 to CFAF 6,500,000. Despite these improvements, challenges persist in the inconsistent use of complaint registration tools and data reliability. Measures to address these include training focal points, updating the grievance manual, and appointing a dedicated GBV focal point.

72. **Fiduciary Compliance.** The project closed with a Satisfactory rating for FM, which remained consistent throughout its implementation. The project adhered to both World Bank guidelines and Organization for the Harmonization of Business Law in Africa (*Organisation pour l'Harmonisation en Afrique du Droit des Affaires*) accounting standards, with no major fiduciary issues identified. FM practices were generally sound, as confirmed by regular audit reports, which indicated that project funds were used in accordance with the FA. Interim financial reports (IFRs) were submitted on time, and financial monitoring reports for the first three quarters of the fiscal year were delivered within the required deadlines. External audits were completed without qualifications, and all audit recommendations were fully implemented. The project's fiduciary risk rating remained Moderate throughout, and audit findings confirmed the proper use of financial resources. At project closure, the disbursement rate stood at 96 percent, with the remaining US$7 million fully committed and mostly disbursed during the grace period. Procurement efficiency was also a highlight, with the project adhering to Bank's procedures, resulting in better price-quality ratios and contributing to overall cost savings. Overall, the project's Satisfactory FM rating reflects effective oversight, full implementation of audit recommendations, and compliance with financial safeguards and procedures.

C. BANK PERFORMANCE

Quality at Entry

73. The quality at entry is rated Satisfactory, considering the Bank's effective role in identifying, preparing, and appraising the project to ensure it was well-positioned to achieve its planned development outcomes while adhering to fiduciary responsibilities. The project's original design was strategically relevant and aligned with national priorities, particularly in enhancing the institutional, technical and financial capacities of key stakeholders such as ONEP, thereby promoting sustainability and long-term impact beyond civil works. The project design was straightforward, focusing on achievable activities. In terms of implementation arrangements, the project strategically engaged the PCU (CC-PREMU/PRECI), who was already managing an ongoing Bank-financed infrastructure project with water supply components. This integration facilitated smooth financing preparation and ensure that initial activities were ready at entry. Adding the sanitation component during the AF was a well-judged decision, closing the loop between water supply and sanitation for more sustainable resource management. Furthermore, the initiation of various water resource studies was highly beneficial, as it provided greater visibility on resource availability and supported the preparation of PASEA.

74. The Bank ensured that the project's design was comprehensive, incorporating technical, financial, and economic considerations, and ensuring compliance with E&S safeguards. It also integrated poverty, gender, and social development aspects, which results in achieving notable outcomes such as 48.9 percent female participation among the beneficiaries. As noted in the M&E section, some indicators—such as the continuity of water supply services—had to be adjusted due to measurement complexities and overlaps with other related indicators. However, the overall M&E framework was effectively designed and successfully implemented to track progress and manage risks. Additionally, fiduciary aspects were well-structured, as evidenced by the project's ability to maintain a moderate fiduciary risk rating throughout while ensuring the proper use of financial resources.

Quality of Supervision

75. The quality of supervision is rated Satisfactory, characterized by proactive engagement and adaptability in addressing emerging challenges. The Bank conducted 12 formal supervision missions, ensuring continuous oversight

despite changes in TTLs. The team demonstrated flexibility, particularly during the COVID-19 pandemic, facilitating emergency funding and reallocating resources to support WASH initiatives, all while maintaining alignment with the project's core objectives.

76. A key strength of the supervision effort was the team's commitment to improving the results framework. During the AF phase, the team carefully revised indicators to better capture project outcomes, including the integration of sanitation and institutional strengthening components. The Bank's supervision was also effective in managing unforeseen challenges. For example, when heavy rains in June 2024 threatened to delay the completion of the Issia water complex, the team acted swiftly by extending the project closing date by one month. This timely decision ensured the successful completion of critical infrastructure and helped maintain the Bank's reputation for effective project delivery.

77. Fiduciary aspects were consistently prioritized, resulting in satisfactory financial management ratings throughout implementation. The Bank placed strong emphasis on regular reporting, which reinforced transparency and accountability. Furthermore, the team maintained robust oversight of environmental and social safeguard compliance, ensuring effective risk management across the project's lifecycle.

Justification of Overall Rating of Bank Performance

78. Overall Bank performance is rated Satisfactory. The Bank provided strong supervision, maintained effective fiduciary and safeguard oversight, and demonstrated adaptability in addressing challenges. Continuous monitoring and collaboration with government counterparts supported successful project implementation and ensured alignment with core objectives.

D. RISK TO DEVELOPMENT OUTCOME

79. The project's success relies on the continued technical and financial capacity of ONEP and various departments under MINHAS. The strengthening of these institutions was a key focus of the project, particularly through the AF. However, there is a risk that without ongoing support and capacity building, these institutions may struggle to maintain the improved water supply and sanitation services. The financial sustainability of the water sector remains a concern. While the project has made strides in improving the financial capacity of ONEP, continued attention is needed to ensure that tariffs and revenue collection mechanisms are sufficient to cover operational costs and future investments.

80. As briefly mentioned above, the project also faced challenges due to unusually heavy rains, which impacted the construction of the Issia water complex. This highlights the vulnerability of water infrastructure to extreme weather events, which may become more frequent due to climate change. The risk of similar events affecting the maintenance and operation of the newly constructed facilities in the future cannot be overlooked.

81. The project's success was partly due to strong government commitment and effective coordination. Any changes in political leadership or priorities could potentially affect the continued support for and maintenance of the project's outcomes. Additionally, the project encountered some social challenges, including workplace injuries and damage to utility infrastructure. Ongoing attention to social safeguards and community engagement will be crucial to mitigate risks to the project's social outcomes, especially given the ongoing Bank's engagement via the Côte d'Ivoire Water Security and Sanitation MPA program that is expected to be implemented more than 10 years.

82. The project revealed some weaknesses in environmental and social safeguards implementation, particularly in terms of local stakeholder capacity and contractor safety culture. If unaddressed, these issues could jeopardize long-term sustainability, especially in environmental protection and worker safety.

83. To mitigate these risks, several strategies should be considered: (i) continued capacity building for ONEP and relevant stakeholders, focusing on technical, financial, and environmental management; (ii) regular review and adjustment of water tariffs to ensure financial sustainability; (iii) integration of climate resilience measures into the maintenance and operation of water infrastructure; (iv) sustained engagement with government stakeholders to maintain

political support; (v) ongoing community engagement and strengthening of grievance mechanisms; and (vi) enhanced training and oversight for environmental and social safeguards implementation.

V. LESSONS AND RECOMMENDATIONS

84. **Flexibility and responsive coordination are critical for addressing challenges during project implementation.** The project has adapted to financial constraints and changing local demands, such as transferring certain towns to a new program and including Abongoua to meet urgent water access needs. It also responded to external shocks such as COVID-19 and the global supply chain crisis, restructuring timelines and integrating pandemic response measures, such as additional water connections and sanitation facilities. Exchange rate gains were leveraged for emergency WASH initiatives, demonstrating how emergency actions can be integrated without compromising core objectives. This adaptability highlights the importance of flexible project management strategies that can accommodate unforeseen global events while maintaining core objectives. A related lesson is the simplicity of the original design, with 90 percent of investment and 10 percent of project management, with strong readiness, overall allowing early implementation and disbursement and consolidating the ground for success.

85. **Strong Government commitment and effective coordination are central to ensuring project progress and success.** The Government's clear commitment to the project objectives, which has been proven with the need of AF as well as the recently approved MPA, and regular coordination meetings among stakeholders helped ensure alignment and timely decision-making throughout implementation. This lesson underscores the importance of fostering country ownership and maintaining open lines of communication between all involved parties. Also, integrated urban water and sanitation (or water security that includes different water subsectors) projects can create synergies but require strong coordination. While the project successfully integrated water supply and sanitation components, challenges arose in coordinating between water and sanitation agencies and require more complex and long-term engagements. Future projects, including the current and following phases during the Water Security and Sanitation MPA, should establish clear coordination mechanisms that reflect the long-term engagements, from the outset.

86. **A well-designed implementation strategy, comprehensive supervision and effective stakeholder engagement are crucial for ensuring project continuity and successful management.** While all PDO-level and intermediate indicators were achieved, their binary or quantitative nature limits insights into long-term impacts. Future projects, such as PASEA, should incorporate qualitative assessments and follow-up surveys to evaluate how newly installed hydrologic stations contribute to sustainable water resource management over time. The project maintained strong momentum despite changes in TTLs. The presence of two World Bank staff in Abidjan also ensured continuous dialogue with the implementing authorities and other Government officials. There was also continuous communication between staff members based in Abidjan, the PCU, and clients, supported by consistent monitoring practices. Additionally, engaging local NGOs for community outreach and beneficiary selection significantly increased demand for services, as demonstrated by the collection of over 15,000 applications for 10,000 social water connections.

87. **Dedicated E&S and FM specialists on the client side and stronger capacity building in safeguards for local stakeholders are critical for effective risk management.** While the project achieved positive outcomes in job creation, it also faced challenges with workplace injuries and damage to utilities. This lesson emphasizes the need for tailored oversight and continuous training in E&S safeguards throughout project implementation. Robust financial modeling and sector analysis are also essential for informing policy decisions and contract negotiations. The financial model developed under the project proved valuable for informing discussions on the water sector's financial equilibrium and future concession contract negotiations. Investing in such analytical tools early can pay dividends throughout implementation and beyond.

ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS

A. RESULTS FRAMEWORK

PDO Indicators by Outcomes

Increase access and quality of water services in selected urban areas						
Indicator Name	Baseline		Target		Actual Achieved at Completion	
	Result	Month/Year	Original Target	Revised Target	Result	Month/Year
Direct project beneficiaries (Number)	0.00	Oct/2016	549,000.00 (Oct/2016)	1,200,000.00 (Jul/2019)	1,983,330 (165%)	Jun/2024
Female beneficiaries (Percentage)	0.00	Oct/2016	48.70 (Oct/2016)	N/A	48.90 (100.4%)	Jun/2024
Number of people in urban areas provided with access to improved water sources under the project (Number)	0.00	Oct/2016	180,000.00 (Oct/2016)	390,000.00 (Jul/2019)	490,000.00 (126%)	Jun/2024
People with access to enhanced water supply services due to the project (Number)	0.00	Oct/2016	369,000.00 (Oct/2016)	810,000.00 (Jul/2019)	1,493,330.00 (184%)	Jun/2024
Increase access to sanitation in selected urban areas						
Indicator Name	Baseline		Target		Actual Achieved at Completion	
	Result	Month/Year	Original Target	Revised Target	Result	Month/Year
Number of students with access to improved sanitation facilities in schools under the project (Number)	0.00	Jul/2019	-	90,000.00 (Jul/2019)	95,256 (106%)	Jun/2024
Strengthen capacity for improved planning and monitoring of the urban water sector						
Indicator Name	Baseline		Target		Actual Achieved at Completion	
	Result	Month/Year	Original Target	Revised Target	Result	Month/Year

Sector financial model used for financial planning and decision making (Yes/No)	No	Oct/2016	Yes (Oct/2016)	N/A	Yes	Jun/2024
Strategic Sector Plan towards SDG6 approved (Yes/No)	No	Jul/2019	-	Yes (Jul/2019)	Yes	Jun/2024

Intermediate Indicators by Components

Component A - Urban water supply						
Indicator Name	Baseline		Target		Actual Achieved at Completion	
	Result	Month/Year	Original Target	Revised Target	Result	Month/Year
New piped household water connections resulting from the project intervention (Number)	0.00	Oct/2016	10,000.00 (Oct/2016)	31,000.00 (Jul/2019)	41,000.00 (132%)	Jun/2024
Inactive household connections re-activated in centers targeted by the Project (Number)	0.00	Oct/2016	8,000.00 (Oct/2016)	N/A	8,000.00 (100%)	Jun/2024
Production capacity constructed under the project (Cubic Meter(m3))	0.00	Oct/2016	33,000.00 (Oct/2016)	92,000.00 (Jul/2019)	85,960.00 (93%)	Jun/2024
Water storage capacity constructed under the project (Cubic Meter(m3))	0.00	Oct/2016	2,300.00 (Oct/2016)	14,600.00 (Jul/2019)	15,550.00 (107%)	Jun/2024
Water transmission and distribution pipes constructed under the project (Kilometers)	0.00	Oct/2016	113.00 (Oct/2016)	952.00 (Jul/2019)	1,823.00 (191%)	Jun/2024
Number of people reached by local communication campaigns for the social connection program (Number)	0.00	Oct/2016		585,000.00 (Jul/2019)	774,790.00 (132%)	Jun/2024
Improvement in beneficiaries' satisfaction (Percentage)	30.00	Oct/2016	90.00 (Oct/2016)	80.00 (Jul/2019)	90.00 (112.5%)	Jun/2024
Component B - Urban Sanitation						
Indicator Name	Baseline		Target		Actual Achieved at Completion	

	Result	Month/Year	Original Target	Revised Target	Result	Month/Year
Number of schools benefiting from new/rehabilitated WASH facilities (Number)	0.00	May/2019	375.00 (Jul/2019)	250.00 (Apr/2024)	267.00 (106.8%)	Jun/2024
Number of health centers benefiting from new and/or rehabilitated WASH facilities (Number)	0.00	May/2019		50.00 (Jul/2019)	50.00 (100%)	Jun/2024
Number of female students who gain access to menstrual hygiene management (MHM)-equipped WASH facilities at school (Number)	0.00	May/2019		9,000.00 (Jul/2019)	42,632.00 (474%)	Jun/2024
National Sanitation Sector Strategy Approved (Yes/No)	No	May/2019		Yes (Jul/2019)	Yes	Jun/2024
Number of sanitation and drainage master plans approved (Number)	0.00	May/2019		5.00 (Jul/2019)	7.00	Jun/2024
Component C - Urban Water Sector Strengthening						
Indicator Name	Baseline		Target		Actual Achieved at Completion	
	Result	Month/Year	Original Target	Revised Target	Result	Month/Year
Completion of the audit of contracts between Government, ONEP and SODECI (Yes/No)	No	Oct/2016	Yes (Oct/2016)	N/A	Yes	Jun/2024
Completion of financial model (Yes/No)	No	Oct/2016	Yes (Oct/2016)	N/A	Yes	Jun/2024
	Comments on achieving targets		Financial model was completed. A workshop to discuss the sector performance objectives and prepare an action plan was held with all sector stakeholders on March 21, 2019.			
Completion of assets inventory (Yes/No)	No	Oct/2016	Yes (Oct/2016)	N/A	Yes	Jun/2024
Number of hydrologic information collection and monitoring stations installed and operational (Number)	0.00	Jul/2019		35.00 (Jul/2019)	35.00 (100%)	Jun/2024
Report on sector asset management monitoring available (Yes/No)	No	Jul/2019		Yes (Jul/2019)	Yes	Jun/2024

A web-based sector M&E platform that uses digital technology is operationalized (Yes/No)	No	Apr/2019		Yes (Jul/2019)	Yes	Jun/2024
District Meter Areas (DMAs) established in a pilot area in Abidjan water distribution network (Yes/No)	No	Apr/2019		Yes (Jul/2019)	Yes	Jun/2024
	Comments on achieving targets		All the activities 1, 2, 3, 5, 6 and 7 have been completed and the reports are available. Activity 7, concerning the supply and installation of sectorization equipment, has had its contract negotiated with SODECI. Sectorization has commenced and is expected to finish by February 2025.			

B. KEY OUTPUTS

Increase access and quality of water services in selected urban areas	
PDO Indicators	1. Direct project beneficiaries 2. Number of people in urban areas provided with access to improved water sources under the project 3. People with access to enhanced water supply services due to the project
Key Outputs (linked to the achievement of the PDO Outcome)	1. 1,983,330 direct project beneficiaries (48.90% female beneficiaries) 2. 490,000 people in urban areas provided with access to improved water sources 3. 1,493,330 people with access to enhanced water supply services
Increase access to sanitation in selected urban areas	
PDO Indicators	1. Number of students with access to improved sanitation facilities in schools under the project
Key Outputs (linked to the achievement of the PDO Outcome)	1. 95,256 students with access to improved sanitation facilities in schools:
Strengthen capacity for improved planning and monitoring of the urban water sector	
PDO Indicators	1. Sector financial model used for financial planning and decision making 2. Strategic Sector Plan towards SDG6 approved
Key Outputs (linked to the achievement of the PDO Outcome)	1. Sector financial model used and strategic sector plan approved

Component D - Project Management	
Intermediate Results Indicators	N/A
Key Outputs (linked to the achievement of the Component)	N/A
Component C - Urban Water Sector Strengthening	
Intermediate Results Indicators	1. Completion of the audit of contracts between Government, ONEP and SODECI 2. Completion of financial model 3. Completion of assets inventory 4. Number of hydrologic information collection and monitoring stations installed and operational 5. Report on sector asset management monitoring available 6. A web-based sector M&E platform that uses digital technology is operationalized 7. District Meter Areas (DMAs) established in a pilot area in Abidjan water distribution network
Key Outputs (linked to the achievement of the Component)	1. Completion of the audit of contracts between Government, ONEP and SODECI 2. Completion of financial model 3. Completion of assets inventory 4. 35 hydrologic information collection and monitoring stations installed and operational 5. Report on sector asset management monitoring available 6. A web-based sector M&E platform that uses digital technology is operationalized 7. District Meter Areas (DMAs) established in a pilot area in Abidjan water distribution network
Component B - Urban Sanitation	
Intermediate Results Indicators	1. Number of schools benefiting from new/rehabilitated WASH facilities

	2. Number of health centers benefiting from new and/or rehabilitated WASH facilities 3. Number of female students who gain access to menstrual hygiene management (MHM)-equipped WASH facilities at school 4. National Sanitation Sector Strategy Approved 5. Number of sanitation and drainage master plans approved
Key Outputs (linked to the achievement of the Component)	1. 91 schools benefiting from new/rehabilitated WASH facilities 2. 210 health centers benefiting from new and/or rehabilitated WASH facilities 3. 311 female students who gain access to menstrual hygiene management (MHM)-equipped WASH facilities at school 4. National Sanitation Sector Strategy Approved
Component A - Urban Water Supply	
Intermediate Results Indicators	1. New piped household water connections resulting from the project intervention 2. Inactive household connections re-activated in centers targeted by the Project 3. Production capacity constructed under the project 4. Water storage capacity constructed under the project 5. Water transmission and distribution pipes constructed under the project 6. Number of people reached by local communication campaigns for the social connection program 7. Improvement in beneficiaries' satisfaction
Key Outputs (linked to the achievement of the Component)	1. 41,000 new piped household water connections 2. 8,000 inactive household connections re-activated in centers targeted 3. 85,960 cubic meters --- production capacity constructed 4. 15,550 cubic meters --- water storage capacity 5. 1,823 -- water transmission and distribution pipes constructed 6. 774,490 people reached by local communication campaigns for the social connection program 7. 90% satisfaction among beneficiaries

ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION

A. TASK TEAM MEMBERS

Name	Role
Preparation	
Mata Fall	Team Leader (ADM Responsible)
Andrea E. Stumpf	Counsel
Maurice Adoni	Procurement Specialist (ADM Responsible)
Maimouna Mbow Fam	Financial Management
Abdoul Wahabi Seini	Specialist Safeguards Specialist
Abdoulaye Gadiere	Safeguards Specialist
Faly Diallo	Team Member
Issa Thiam	Team Member
Jane Jamieson	Team Member
Madio Fall	Team Member
Paul Kriss	Team Member
Philippe Marin	Team Member
Pier Francesco Mantovani	Team Member
Richard Verspyck	Team Member
Mariame Bamba	Team Member
Maimouna Mbow Fam	Financial Management
Supervision	
Jacques Touchard Adia	Team Leader (ADM Responsible)
Dambudzo Josephine Muzenda	Team Leader
Atioumoutio Edith Kone Epse Zannou Tchoko	Financial Management Specialist
Harouna Djibrilla Djimba	Procurement Specialist
Maurice Adoni	Procurement Specialist
Antro Kenneth Sanvi	Procurement Specialist
Edichi Brigitte Andoh Epse Mobongol	Environmental Specialist
Alphonse Emadak	Environmental Specialist

Gisele Belem	Social Specialist
Jerome Tamba Koundouno	Social Specialist
Elisa Ilibagiza Mugiraneza	Counsel
Jean Vincent Koua	Team Member
Julie Nyamien Messoum Kouame	Team Member
Dite Eulalie Marcelle Bah	Team Member
Francois Bertone	Team Member
Cedric Cubahiro	Team Member

B. STAFF TIME & COST

Stage of Project Cycle	Staff Time & Cost	
	No. of Staff Weeks	US$ (including travel and consultant costs)
Preparation		
FY16	11.330	128,534.87
FY17	13.862	150,928.74
FY18	2.907	16,817.58
FY19	10.087	29,488.13
Total	38.19	325,769.32
Supervision/ICR		
FY17	3.175	29,280.15
FY18	13.400	131,941.78
FY19	28.175	332,226.46
FY20	49.310	486,188.39
FY21	59.900	525,017.15
FY22	42.364	177,274.58

FY23	35.045	163,335.16
FY24	33.752	177,965.70
FY25	12.100	52,238.53
Total	277.22	2,075,467.90

ANNEX 3. PROJECT COST BY COMPONENT

Component	Amount at Approval (US$, millions)	Adjusted Amount – Restructuring (US$, millions)	Actual at Project Closing (US$, millions)	Percentage of Approval
Component A - Urban Water Supply	147.0	155.05	153.98	99.3
Component B - Urban Sanitation	19.0	14.25	13.89	97.5
Component C - Urban Water Sector Strengthening	26.0	20.60	19.76	95.9
Component D - Project Management	8.0	10.10	11.70	115.9

**This is the total amount including all payments made following the project's closure, covering the three months thereafter.*

ANNEX 4. EFFICIENCY ANALYSIS

Ex Post Economic and Financial Analysis of PREMU

1. PREMU costing US$50 million entered into force on May 17, 2017. An AF of US$150 million was provided on October 18, 2019, to bring PREMU's overall funding to US$200 million. The PDO is to increase access and quality of water services and access to sanitation in selected urban areas and improve planning and monitoring of the drinking water sector by urban environment. The project was closed on July 31 2024, with a disbursement rate of 96.4 percent.

2. An ex post financial and economic analysis of the project's impacts is conducted in accordance with the Implementation Completion and Results Report (ICR) guidelines, with the aim of reassessing the performance of PREMU at the completion stage, compared to the forecast targets of the results indicators specified in the PAD.

3. In this regard, it will be a question of revisiting the various analyses to update the data, parameters, and hypotheses which were used to establish the level of financial and economic criteria and to broaden the scope of analysis of the economic impacts of the project with regard to the results recorded in the field of sanitation. The analysis approach will essentially be based on the different stages retained in Annex 5 of the PAD and Annex 4 of the AC relating to the economic and financial analysis of PREMU.

4. The economic analysis part aims to update the cost-benefit analysis carried out for the initial project and for the AF considering the effective implementation of PREMU on the completion date as well as the impact of its activities.

5. The financial analysis derives from cost-benefit analysis. Financial calculations consider financial income and costs in with/without project situations, including taxes and excluding noncash-generating benefits (consumer surplus). In addition, this part aims to assess the financial impact of PREMU on the consolidation of the financial viability of different operators.

6. These evaluations carried out ex post show that PREMU generally generates a satisfactory economic rate of return (ERR) and NPV. The results obtained thus confirm the good performance of the project recorded during its implementation and translated through the results indicators. The project generated a balance of CFAF 531 million at the end of the cycle and produced the expected results after its restructuring. In total, the project indicators evaluated ex post present an ERR = 15.98 percent and NPV of US$80.23 million discounted at 6 percent, and these values are clearly above those retained in the PAD (ERR = 7.03 percent and NPV of US$5.5 million discounted at 6 percent) and in the AC (ERR = 10.97 percent and NPV of US$44.12 million discounted at 6 percent). In terms of financial analysis, the FIRR has become significant and is at 11.9 percent reflecting the impact of the project on the financial results of SODECI.

A. Economic Analysis

7. **Methodology.** The cost-benefit analysis has been updated to assess the ERR and NPV of all activities carried out under the original project and additional funding. The methodology used in the PAD was continued with precision in discerning the benefits of the project. These benefits include (a) direct benefits resulting from increased water consumption, (b) surplus of consumers accruing to beneficiaries switching from other private sources to the use of public water services, (c) improvement of the water service for existing subscribers and (d) the direct socioeconomic impacts on the students benefiting from sanitation actions. These benefits are related to project costs which include investment costs and incremental operating costs (energy and chemicals, commercial costs, and maintenance costs).

8. Concretely, the analysis will lead to an update of the forecast results of the PAD and the AC to consider the results obtained after the award of the contracts. The update also concerns the reconstitution of the investment schedule, the evaluation of the project benefits and the costs resulting from the effective implementation, a revision of the basic assumptions concerning the variable operating costs (energy and chemicals), and the timing of expected improvements in water-related commercial and physical losses. Overall, these updates have a positive impact on the economic calculation results.

9. **Investment cost.** The activities carried out by the project over 2017–2024 are presented in Table 4.1.

Table 4.1. Project Costs (US$, millions)

Désignation		PAD Initial		AC		Total forecast	Total achievement
		Amount	%	Amount	%	Amount	Amount
Component A	**Urban Water Supply**	45,64	91%	101,75	68%	147,39	147
Component B	**Urban Water Sector Strengthening**	1,83	4%	24,11	16%	25,94	16
Component C	**Urbain Sanitation**		0%	18,98	13%	18,98	12
Component D	**Project Management**	2,53	5%	5,32	4%	7,85	17
Total		**50**	**100%**	**150,16**	100%	**200,16**	**192,83**

10. **Total cost of the project.** At the completion date, the amount of the various PREMU achievements amounts to US$192.83 million compared to a forecast of US$200.16 million. The first phase consisted of strengthening production and storage in eight initial cities (Bingerville, Tiassalé, Ndouci, Béoumi, Agboville, Korhogo, Ferke, and Sinématiali) and the second phase consisted of strengthening the achievements of the first phase in the initial centers and also the strengthening of water distribution in the surrounding localities. The additional funding approved in 2019 provided for the consideration not only of the initial centers but also of four secondary centers: Niakara, Dabou, Songon, and Issia. However, COVID-19 and the invasion of Ukraine have had an impact on the variation in unit prices of material costs of initial commitments, thus increasing the base costs. This motivated the withdrawal of the three towns of Niakara, Dabou, and Songon. The only town covered by PREMU funding is Issia, whose drinking water supply work was completed by July 31, 2024.

11. The disbursement rate to date on PREMU is 96.4 percent for both financings, including 100 percent for the initial financing and 96.35 percent for the AF. The amount disbursed across both projects is CFAF 112.8 billion out of a total amount of CFAF 117.1 billion.[8] The amount of invoices in the payment circuit is CFAF 3.75 billion, which does not allow to consume all of the available resources, the amount of which is CFAF 4.2 billion. The available resources which cannot be consumed by the end of the grace period are CFAF 531 million, corresponding, respectively, to environmental provisions up to CFAF 200 million and the balance on non-invoiceable markets up to CFAF 321 million.

12. The forecast resources were therefore sufficient for the execution of the activities planned and restructured during the mission of the month of December 2023. For the most part, the activities were carried out within the required deadlines despite the existence at the end of the project of an amount of CFAF 3.75 billion to be paid to service providers. The results obtained by the project indicate that the choices made in the use of resources which were essentially aligned with the

[8] US$1 = CFAF 584.

procedures of the World Bank were judged to be the best, which made it possible to obtain best price/quality ratios and thus achieve a balance of CFAF 531 million.

13. **Investment costs.** The investment costs retained for the ex post analysis are estimated at CFAF 57.113 billion for the drinking water supply compared to a cost of CFAF 67.923 billion in the PAD and FA. CFAF 12 billion was retained for sanitation. The incremental operating costs of the drinking water supply in the AC and presented in Table 4.2 remain valid.

Table 4.2. Operation and Maintenance Costs with and without Project

	Without Project	With Project
Water supply		
Chemical costs per m^3 produced	CFAF 32.19/m^3	23.42 FCFA/m^3
Energy costs per m^3 produced	CFAF 39.82/m^3	34.36 FCFA/m^3
Incremental maintenance costs	n.a.	0.5% of investment costs
Commercial costs	CFAF 3,000/connection	CFAF 3,000/connection

14. **Profits attributable to the project as of the completion date.** The additional benefits generated by the project activities are listed in Table 4.3, which also relates the activities to the project objectives.

Table 4.3. Economic Benefits of the Project

Development Objective/Activities	Additional Benefits
Access to drinking water	The increase in treatment, storage, and distribution capacities in 10 department and sub-prefecture localities and their surrounding localities allowed access to improved water supply services to 1,983,330 people, that is, 165% of the final objective (1,200,000 people), In addition, the finalization of the water supply works in the town of Issia enabled the supply of drinking water to 85,000 additional people. The localities benefiting from the project were equipped with 49,000 social connection kits, representing a total of 490,000 inhabitants who were directly connected owing to the project and around 2,000,000 inhabitants whose drinking water service was improved. These results will translate into additional income for SODECI and ONEP.
Access to sanitation	The construction of latrine blocks will benefit 95,256 students who will have access to improved sanitary facilities representing 106% of the final objective (90,000 students) including 42,632 girls having access to cabins adapted for MHM. These actions will have major impacts on the economy of parents' health spending and on regular attendance, especially of girls, at school, which is added value for society.
Improving SODECI's performance	The pilot for the reduction of NRW in the commune of Koumassi will ultimately affect the operational performance of SODECI with added value which will remain marginal in the company's turnover.
Reduction of water fetching for women and girls (reduction of gender inequalities)	Promoting time savings for women and girls representing around 48% of beneficiaries in terms of social connections. The time saving is valued by the opportunity cost of unskilled labor considering the time and distance of water collection in a situation without/with a project.

15. **Incremental revenue.** The assumptions concerning incremental consumption, water prices, and income in the PAD and updated in the AC remain valid for the ex post analysis. Additional revenues will consist of additional water sales generated by the connections financed by the project, but they also consider the improvement of service to existing subscribers.

16. **Improved access to drinking water.** This relates to the creation of 41,000 new connections to serve 410,000 people with a specific consumption set at 54 L/p/d. These subscribers will increase SODECI's drinking water revenue. Water is valued based on unit income of CFAF 257/m^3.

17. **Improved access to improved drinking water services.** Former SODECI subscribers numbering 1,493,330 people will benefit from the increase in the volume of water distributed by an improvement in the level of their specific consumption which goes from 25 L/p/j to 54 L/p/j. This achievement will generate additional water income for SODECI and will also help subscriber households save costs linked to water rationing.

18. **Consumer surplus.** In relation to the new connections, the economic analysis accounts for the consumer surplus resulting from the increase in water consumption and the drop in water prices paid by beneficiaries substituting their sources of supply. Consumer surplus is equal to the increase in water consumption multiplied by the difference in the price of water paid before and after the project and multiplied by the income elasticity of 0.5.

19. **Other economic benefits.** Beyond the advantages cited and quantified previously, other advantages linked to a sanitation water supply project must be considered. These include three types of benefits: (a) reduction in health expenditure linked to a reduction in the prevalence of waterborne diseases; (b) regularity in school attendance; and (c) the existence of greater availability for other activities for people previously responsible for the supply of drinking water, particularly women and girls. Guy Hutton and Laurence Haller, in their assessment of the costs and benefits of global water supply and sanitation carried out for the World Health Organization (WHO),[9] list the most identifiable direct and indirect effects linked to these advantages. In the case of Côte d'Ivoire, the most significant economic benefits realized are those relating to the time savings obtained for water collection: US$41.5/inhabitant/year, then the regularity of attendance at school allows a cost saving of US$8/inhabitant/year, and finally come the gains relating to the costs of treating illnesses avoided for the community and patients of US$4.2/inhabitant/year. These benefits, totaling US$53.5/inhabitant/year, were updated with a Consumer Price Index rate (2010–2023)[10] of US$130,765 and applied to vulnerable people in the project's target group to consider these effects in calculating the profitability of the project.

20. **Ex post economic profitability of PREMU.** Table 4.4 presents the results of the ex post analysis in comparison with the results obtained ex ante in the PAD and the AC. The results are presented for the ERR and the NPV which is evaluated with two discount rates, namely 10 percent and 6 percent. These results are clearly above the predictions maintained in the PAD and the AC.

Table 4.4. Economic Results of the Project

Indicators	Initial PAD	FA	PREMU Ex Post
ERR (%)	7.03	10.97	15.98
NPV (discounted at 6%) (US$, millions)	5.5	44.12	80.23
NPV (discounted at 10%) (US$, millions)	n.d.	n.d.	29.76

Note: n.d. = Not determined.

21. The economic results achieved by the project (ERR = 15.98 % and NPV of US$80.23 million discounted at 6 percent) are more significant than the forecast results of the PAD (ERR = 7.03 percent and NPV of US$5.5 million discounted at 6 percent) and AC (ERR = 10.97 percent and NPV of US$44.12 million discounted at 6 percent). These significant results are linked to the resizing of the project which allowed to reduce the cost of implementation while optimizing the impacts on

[9] Hutton, Guy, and Laurence Haller. 2004. "Improving Global Water Supply and Sanitation: Costs and Benefits." Document WHO/SDE/WSH, World Health Organization.
[10] World Perspectives Site. https://worldperspectives.com/.

the target groups. Also, broadening the field of investigation of the benefits made it possible to consider the socioeconomic benefits of the project which contribute at 33 percent to the total NPV evaluated ex post.

B. Financial Analysis

Financial Impact of the Project

22. The financial impact of the project activities was assessed by the FIRR derived from the cost-benefit analysis. Financial calculations consider financial income and costs in with/without project situations, including taxes and excluding noncash-generating benefits (consumer surplus). The FIRR is estimated at 11.9 percent compared to 1.4 percent in the PAD.

ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS

Following the Quality Enhancement Review meeting held on December 19, 2024, the ICR was shared with the PIU (CC-PRECI/PREMU). The PIU Coordinator responded to the request for comment in French "We acknowledge receipt of the PREMU ICR report. After review, we have no specific comments on the report. We appreciate the evaluation that has been conducted. We would like to thank the entire Bank team who supported us in the implementation of the PREMU, which enabled us to achieve this satisfactory evaluation." Below is their evaluation.

I. EVALUATION OF PROJECT PERFORMANCE

A. Relevance of the Project

Rating: Highly Satisfactory

1. The PREMU / PREMU-FA aims "to increase access to and the quality of water services and access to sanitation in selected urban areas and to improve the planning and monitoring of the urban drinking water sector." This project development objective is therefore closely aligned with national development strategies and applicable sectoral strategies, whose guidelines are outlined in the National Development Plans (PND) developed successively for the periods 2016-2020 (PND 2016-2020) and 2021-2025.

2. The objective of PREMU / PREMU-FA is also in line with the second pillar of the World Bank Group's Country Partnership Framework - CPF 2016-2019 for Côte d'Ivoire, which promotes human capital development and aims to strengthen infrastructure across the country, including through improved access to water and sanitation services. Furthermore, the strengthening of planning and monitoring capacities in the water sector, as well as the development of a national sanitation strategy and master sanitation plans for cities, are part of the vision for enhanced governance and structural transformation of the economy.

3. The PREMU / PREMU-FA also addresses government priorities by strengthening institutional capacities and developing monitoring and financial visibility tools, which are crucial for the long-term sustainable positioning of the water and sanitation sector.

B. Relevance of the Project Development Objective

Rating: Highly Satisfactory

4. The present project was formulated in accordance with the current policies and strategies in the water and sanitation sector in Côte d'Ivoire. This includes the national water policy, the national strategy for drinking water supply and sanitation, and the National Development Plan 2021-2025.

5. Given the satisfactory results observed in the implementation of PREMU, with a forecast of total credit disbursement 18 months before its closing date, an Additional Financing (PREMU-FA) was granted and implemented from 2019. Due to its scale, a restructuring of the parent project (PREMU) was carried out, and a new project design was proposed, comprising (i) Component A: Urban Drinking Water Supply (initially US$45.64 million, FA US$101.75 million, total US$147 million); (ii) Component B: Urban Sanitation (US$19 million); (iii) Component C: Strengthening the Urban Water Sector (initially US$ 1.83 million, FA US$24.11 million, total US$26 million); and (iv) Component D: Project Management (initially US$2.54 million, FA US$5.32 million, total US$8 million).

6. The project objectives are clearly stated and oriented towards measurable and impact-focused results for the beneficiaries.

7. The expected results were realistically assessed, taking into account the prevailing circumstances at the time of project preparation (adaptation to post-crisis socio-economic needs, expanding responses to increased urban challenges, capacity building for sustainable governance, extending the project duration to address logistical and financial challenges).

8. The risks associated with PREMU / PREMU-FA were thoroughly evaluated, with specific attention to critical assumptions in the logical model. These risks were identified in key areas likely to compromise the implementation and sustainability of the expected results. The proposed solutions are appropriate in light of the identified problems. The changes made to the project design, transitioning from an initial scope (PREMU) to an expanded scope (PREMU-FA), are relevant and aligned with the objectives and expected results.

C. Relevance of Project Design

Rating: Highly Satisfactory

9. The present project was formulated in accordance with the current policies and strategies in the water and sanitation sector in Côte d'Ivoire. This includes the national water policy, the national strategy for drinking water supply and sanitation, and the National Development Plan 2021-2025. Given the satisfactory results observed in the implementation of PREMU, with a forecast of total credit disbursement 18 months before its closing date, an Additional Financing (PREMU-FA) was granted and implemented from 2019. Due to its scale, a restructuring of the parent project (PREMU) was carried out, and a new project design was proposed, comprising (i) Component A: Urban Drinking Water Supply (initially US$45.64 million, FA US$101.75 million, total US$147 million); (ii) Component B: Urban Sanitation (US$19 million); (iii) Component C: Strengthening the Urban Water Sector (initially US$1.83 million, FA US$24.11 million, total US$26 million); and (iv) Component D: Project Management (initially US$2.54 million, FA US$5.32 million, total US$8 million).

10. The project objectives are clearly stated and oriented towards measurable and impact-focused results for the beneficiaries. The expected results were realistically assessed, taking into account the prevailing circumstances at the time of project preparation (adaptation to post-crisis socio-economic needs, expanding responses to increased urban challenges, capacity building for sustainable governance, extending the project duration to address logistical and financial challenges).

11. The risks associated with PREMU / PREMU-FA were thoroughly evaluated, with specific attention to critical assumptions in the logical model. These risks were identified in key areas likely to compromise the implementation and sustainability of the expected results. The proposed solutions are appropriate in light of the identified problems. The changes made to the project design, transitioning from an initial scope (PREMU) to an expanded scope (PREMU-FA), are relevant and aligned with the objectives and expected results.

D. Overview of Efficacy

12. Progress towards outcomes exceeded targets for outcomes 1 and 2. The target for outcome 3 was met.

Outcome Indicators	Baseline (2016)	Achieved Value (Expected Value at Project Completion)	Target (Expected Value at Project Completion)	Progress Towards Target (% Realized)	Descriptive Report	Core Sector Indicator (Yes/No)
Outcome 1: Improved access to improved water sources + Improved access to improved water services under the project	0	1 983 330 persons	1,200,000 people	165%	As a result of the project, an additional 1,983,330 people in selected cities received sustainable potable water.	Yes
Outcome 2: Improved access to improved sanitation facilities in schools	0	95 256 Students	90 000 Students	106%	As a result of the project, 95,256 students in 267 schools have benefited from improved sanitation facilities.	Yes
Outcome 3: Improved capacity for sector planning and monitoring	No	Yes	Yes	100%	Implementation of the project has made it possible to: • Development of the Strategic Plan for the water sector to achieve SDG6, including private sector financing options. It was approved on June 20, 2024 • Development of a financial model for the sector and training of stakeholders. This model is used for financial planning and decision-making. • Development of the National Strategy for the Sanitation and Drainage Sector. It was approved on June 20, 2024 • Development of the master plan for drinking water supply in greater Abidjan by 2045; • Preparation of seven master plans for sanitation and drainage (SDAD Agboville, SDAD Béoumi, SDAD Dabou, SDAD Issia, SDAD Tiassalé, SDAD N'Douci, and SDAD N'Zianouan). • Audits of contracts between the Government, ONEP and SODECI	Yes

13. The analysis undertaken as part of the Borrower's completion report leads to the conclusion that the outcome can be considered highly satisfactory.

E. Lessons Learned

14. **Design and management of projects by a dedicated structure (CC-PRICI)**: One of the key success factors of the PREMU/PREMU-AF lies in the fact that it was designed and managed by the Coordination Unit of the Infrastructure Renaissance Project in Côte d'Ivoire (CC-PRICI). It is a dedicated structure that, over the years and projects, has acquired good experience in the preparation and management of projects. It has a strong team that is reinforced as needed to absorb the workload generated by new projects. It is a model to be strengthened, sustained and replicated in other countries.

15. **Design of sanitation projects incorporating broader actions in the environment of beneficiary sites**: Sanitation works designed and built under the project are mostly located in schools that are very often not fenced and whose classrooms are dilapidated ("*toilets nicer than classrooms*"). Going forward, it would be more sensible to take into account in the design the general condition of the beneficiary schools by proposing a broader intervention to improve the overall school environment (fences, classrooms, WASH. Given the scale of this intervention, substantial resources will be required for this purpose.

16. **Increased consideration of communication in project design**: The sustainability of sanitation interventions is always a critical issue. The project example showed that increased communication actions aimed at behavior change can ensure the sustainability of interventions. Particular attention and substantial resources should be devoted to this aspect in future operations in the sector.

17. **Demand for sanitation facilities in schools and health centers:** The demand for sanitation works has been greater than the supply of the project.

II. RECOMMENDATIONS

18. The major strategic recommendations that can be formulated following the Borrower's evaluation are as follows:

(a) **Strengthen the adoption of participatory and inclusive planning** by (i) involving local stakeholders (authorities, NGOs, communities, private sector) more from the design phase, to ensure that the project meets the specific needs of the target population; (ii) specifically including marginalized groups (women, youth, low-income populations) in decision-making processes, to ensure equity and social acceptability of the project.

(b) **Make the integration of resilient and sustainable technological solutions systematic**, (i) by investing in modern but locally adapted infrastructures, such as water loss reduction technologies (smart meters, continuous network monitoring), as well as autonomous supply systems (solar drilling, wastewater recycling); (ii) by rigorously considering the impacts of climate change (variability of water resources), (iii) by diversifying water sources, and (iv) by adopting integrated water resources management (IWRM) approaches.

(c) **Secure the Tiassalé water extraction system**: Install a second pump at the water intake to ensure service continuity. This will prevent the tank capacity from being quickly exceeded in case of prolonged maintenance, thus preventing water shortages in the served localities (Tiassalé, N'douci, N'Zianouan, etc.).

(d) **Strengthen storage capacities in Agboville**: Add post-production storage infrastructures to compensate for the insufficiency of the existing tank, which is often saturated, and thus effectively meet water needs (supply).

(e) **Ensure the operation of digital monitoring tools for water supply networks**: Guarantee the maintenance and proper functioning of digital devices that allow real-time monitoring of equipment status (pressure sensors, water level sensors, alarms, etc.). This will enable the rapid detection of critical anomalies, particularly leaks, which cause significant losses.

(f) **Optimize the management and participatory maintenance of sanitation infrastructures** (i) by strengthening the activity of local management committees to ensure regular and effective maintenance of latrine blocks; (ii) by implementing continuous training and awareness programs for local actors, aimed at promoting good maintenance practices, correct use, and cleanliness of infrastructures.

ANNEX 6. SUMMARY OF KEY CHANGES MADE VIA AF AND RESTRUCTURING

Category	Description	When
1. Changes to scope and scale		
Urban centers	Increased from 8 to 12	AF, June 4, 2019
	Removed: Niakara, Dabou, and Songon and transferred to the new IDA project, PASEA Added: Abongoua	R2, April 2024
Sanitation activities	Added new Component B - Urban Sanitation activities	AF, June 4, 2019
Beneficiaries	Increased from 549,000 to 1,200,000	AF, June 4, 2019
Social water connections	Increased target from 10,000 to 31,000	AF, June 4, 2019
2. Implementation arrangements		
Implementing partners	Added MINHAS and ONAD	AF, June 4, 2019
Agreements	Updated agreements between entities to reflect the new MINHAS component	AF, June 4, 2019
3. Implementation schedule		
Project closing date	Extended by 22 months, from June 30, 2022, to April 30, 2024	AF, June 4, 2019
Project closing date	Extended by 2 months, from April 30, 2024, to June 29, 2024 (2-months extension)	R2, April 2024
Project closing date	Extended by 1 month, from June 29, 2024, to July 31, 2024 (1-month extension)	R3, June 2024
4. Funding allocations		
AF	Added €133.8 million (US$150 million equivalent) from IDA	AF, June 4, 2019
Total project cost	Increased from US$50 million to US$200 million	AF, June 4, 2019
5. Reallocation among components		
Component A (Urban Water Supply)	Increased from US$45.6 million to US$147.3 million	AF, June 4, 2019
	Increased from US$147.4 million to US$155 million	R2, April 2024
New Component B (Urban Sanitation)	US$18.9 million	AF, June 4, 2019
	Reduced from US$18.9 million to US$14.2 million	R2, April 2024
Revised Component C (Urban Water Sector Strengthening)	US$25.9 million	AF, June 4, 2019
	Reduced from US$25.9 million to US$20.6 million	R2, April 2024
New Component D (Project Management)	US$7.9 million	AF, June 4, 2019
	Increased from US$7.9 million to US$10.1 million	R2, April 2024
6. Project name	Changed from 'Urban Water Supply Project' to 'Urban Water Supply and Sanitation Project'	AF, June 4, 2019
7. Revised Intermediate Indicators		
Piped household water connections	Target increased from 10,000 to 31,000	AF, June 4, 2019
Production capacity	Increased from 33,000 m^3 to 92,000 m^3	AF, June 4, 2019
Water storage capacity	Increased from 2,300 m^3 to 14,600 m^3	AF, June 4, 2019
Water transmission and distribution pipes	Target increased from 113 km to 952 km	AF, June 4, 2019
Beneficiaries involved in the consultation process	Revised, as the number of people reached by local communication campaigns for the social connection program. Target revised from 18,000 households to 585,000 people.	AF, June 4, 2019

Category	Description	When
Beneficiaries' satisfaction	Expanded to include non-SODECI customers. Target revised from 90% to 80%	AF, June 4, 2019
8. New intermediate indicators		
Schools benefiting from WASH facilities	Target: 375 schools	AF, June 4, 2019
	Target reduced from 375 to 250 schools	R2, April 2024
Health centers benefiting from WASH facilities	Target: 50 centers	AF, June 4, 2019
Female students with access to MHM-equipped WASH facilities	Target: 9,000 students	AF, June 4, 2019
National sanitation sector strategy approved	Target: Yes	AF, June 4, 2019
Sanitation and drainage master plans approved	Target: 5	AF, June 4, 2019
Hydrologic monitoring stations installed	Target: 35	AF, June 4, 2019
Report on sector asset management monitoring available	Target: Yes	AF, June 4, 2019
Web-based sector M&E platform operationalized	Target: Yes	AF, June 4, 2019
DMAs established in Abidjan	Target: Yes	AF, June 4, 2019
9. Disbursements arrangements		
Removal of withdrawal condition	Removed condition that no withdrawal could be made under Category B until proceeds under original financing were fully disbursed	R1, October 2020

Note: DMA = District meter area; M&E = Monitoring and evaluation; MHM = Menstrual hygiene management; PASEA = Côte d'Ivoire Water Security and Sanitation Support Program; R1 = First restructuring; R2 = Second restructuring; R3 = Third restructuring.

ANNEX 7. SUPPORTING DOCUMENTS (IF ANY)

1. Côte d'Ivoire Country Parternship Framework (CPF) FY16-19
2. Côte d'Ivoire Country Parternship Framework (CPF) FY23-27
3. Disclosable Project Appraisal Document Parent Project (2017)
4. Disclosable Project Appraisal Document Additional Financing (2019)
5. Implementation Status & Results Report seq 1 (3/31/2017)
6. Implementation Status & Results Report seq 2 (10/23/2017)
7. Implementation Status & Results Report seq 3 (3/29/2018)
8. Implementation Status & Results Report seq 4 (10/4/2018)
9. Implementation Status & Results Report seq 5 (3/29/2019)
10. Implementation Status & Results Report seq 6 (9/14/2019)
11. Implementation Status & Results Report seq 7 (3/10/2020)
12. Implementation Status & Results Report seq 8 (9/8/2020)
13. Implementation Status & Results Report seq 9 (3/9/2021)
14. Implementation Status & Results Report seq 10 (9/2/2021)
15. Implementation Status & Results Report seq 11 (3/3/2022)
16. Implementation Status & Results Report seq 12 (8/23/2022)
17. Implementation Status & Results Report seq 13 (2/27/2023)
18. Implementation Status & Results Report seq 14 (8/30/2023)
19. Implementation Status & Results Report seq 15 (2/8/2024)
20. Aide-Memoires throughout the project implementation (2017-2024)
21. Ex-Post Economic and Financial Analysis of PREMU (Annex 4)
22. PREMU Result Report submitted and Raw Data Excel