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Report No: PAD00238

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT  
ON A  
PROPOSED CREDIT

IN THE AMOUNT OF US\$200.0 MILLION

AND A  
PROPOSED GRANT IN THE AMOUNT OF US\$10.092 MILLION  
FROM THE GLOBAL ENVIRONMENT FACILITY  
TO THE

REPUBLIC OF GUINEA

FOR A

Guinea Water and Sanitation Project  
(P179017)

**March 14, 2025**

Water Global Practice  
Western and Central Africa Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective 3 February 2025)

Currency Unit =

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8,649 = US\$1

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US\$ 0.77= SDR 1

FISCAL YEAR

January 1 - December 31

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**ABBREVIATIONS AND ACRONYMS**

AFD	French Development Agency ( <i>Agence Française de Développement</i> )
AREE	Electricity and Water Regulatory Agency ( <i>Agence de Regulation de l'Electricité et de l'Eau</i> )
BADEA	Arab Bank for Economic Development in Africa ( <i>Banque arabe pour le développement économique en Afrique</i> )
BCRG	Central Bank of the Republic of Guinea ( <i>Banque Centrale de la République de Guinée</i> )
BOT	Build-Operate-Transfer
CBA	Cost-benefit Analysis
CCDR	Country Climate and Development Report
CPF	Country Partnership Framework
CRI	Corporate Results Indicator
DA	Designated Account
DATU	Urban and Regional Development Directorate ( <i>Direction de l'Aménagement du Territoire et de l'Urbanisme</i> )
DFIL	Disbursement and Financial Information Letter
DGD	<i>General Customs Directorate (Direction Générale des Douanes</i>
DNH	National Water Resources Directorate ( <i>Direction Nationale de l'Hydraulique</i> )
DNM	National Directorate of Mines ( <i>Direction Nationale des Mines</i> )
DPF	Development Policy Financing
DNH	National Directorate of Hydraulics ( <i>Direction Nationale de l'Hydraulique</i> )
DPO	Development Policy Operation
DREVE	Development, Resilience and Valorization of Transboundary Water for West Africa ( <i>Programme Développement, Résilience et Valorisation de l'Eau en Afrique de l'Ouest</i> )
EBI	Exim Bank of India
EIB	European Investment Bank
E&S	Environmental and Social
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
EU	European Union
FM	Financial Management
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIS	Geographic Information System
GNP	Gangan National Park
GoG	Government of Guinea
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
HCI	Human Capital Index
HEIS	Hands-on Expanded Implementation Support



IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IFC	International Finance Corporation
IPF	Investment Project Financing
IRR	Internal Rate of Return
IWRM	Integrated Water Resources Management
LDCF	Least Developed Countries Fund
LMIC	Lower middle-income country
M&E	Monitoring and Evaluation
NRW	Non-revenue water
MEDD	Ministry of Environment and Sustainable Development ( <i>Ministère de l'Environnement et du Développement Durable</i> )
MEHH	Ministry of Energy, Hydraulics and Hydrocarbons ( <i>Ministère de l'Energie, de l'Hydraulique et des Hydrocarbures</i> )
MIGA	The Multilateral Investment Guarantee Agency
MOU	Memorandum of Understanding
MUHAT	Ministry of Urban Development, Housing and Regional Development ( <i>Ministère de l'Urbanisme, Habitat et Aménagement du Territoire</i> )
NBS	Nature-based solutions
NDC	Nationally Determined Contribution
NEMA	Our Water Well Managed and Accessible (Program) ( <i>Notre Eau Maîtrisée et Accessible</i> )
NGO	Non-Government Organization
NRW	Non-Revenue Water
NPV	Net Present Value
O&M	Operations and Maintenance
OGPNRF	Guinea National Parks and Wildlife Office ( <i>Office Guinéen des Parcs Nationaux et Réserves de Faune</i> )
PAD	Project Appraisal Document
PAP	Project Affected Persons
PBC	Performance-Based Conditions
PEAG	Guinea Water and Sanitation Project ( <i>Projet d'Eau et d'Assainissement de Guinée</i> )
PCE	Private capital enabling
PCM	Private capital mobilization
PDO	Project development objective
POM	Project Operations Manual
PCU	Project Coordination Unit
PIR	Policy Institutions and Regulations
PNDES	National Economic and Social Development Plan ( <i>Plan National de Développement Economique et Social</i> )
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public-Private Partnership
PPSD	Project Procurement Strategy for Development
PRMP	Procurement Officer ( <i>Personne Responsable des Marchés Publics</i> )
PUEG	Guinea Urban Water Project ( <i>Projet Urbain Eau de Guinée</i> )
RAF	Financial Management Officer ( <i>Responsable administratif et financier</i> )



RAP	Resettlement Action Plan
SEP	Stakeholder Engagement Plan
SEG	Water Company of Guinea ( <i>Société des Eaux de Guinée</i> )
SNAPE	Rural Water Supply Agency ( <i>Service National d'Aménagement des Points d'Eau</i> )
STEP	Systematic Tracking of Exchanges in Procurement
TA	Technical Assistance
ToR	Terms of Reference
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank
WTP	Water treatment plant
WWTP	Wastewater treatment plant



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**DATASHEET**

**BASIC INFORMATION**

Project Beneficiary(ies) Guinea	Operation Name Guinea Water and Sanitation Project		
Operation ID P179017	Financing Instrument Investment Project Financing (IPF)	Environmental and Social Risk Classification High	
GEF Focal Area Climate Change			

**Financing & Implementation Modalities**

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input checked="" type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input checked="" type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternative Procurement Arrangements (APA)	<input checked="" type="checkbox"/> Hands-on Expanded Implementation Support (HEIS)

Expected Approval Date 04-Apr-2025	Expected Closing Date 30-Sep-2031
Bank/IFC Collaboration Yes	Joint Level Complementary or Interdependent project requiring active coordination

**Proposed Development Objective(s)**



The project development objective is to increase access to safely managed water services in Greater Conakry and to strengthen the operational and organizational performance of water and sanitation institutions in Guinea.

**Components**

Component Name	Cost (US\$)
Component 1: Increasing and improving water services in Greater Conakry	435,000,000.00
Component 2. Support to Water Sector Performance, and Institutional and Policy Reforms	24,000,000.00
Component 3. Enhancing Water Resources Management in Selected Areas	11,262,000.00
Component 4. Project Implementation Support	28,830,000.00
Component 5: Contingent Emergency Response Component (CERC)	0.00

**Organizations**

Borrower:	Ministry of Economy and Finance (MEF)		
Contact	Title	Telephone No.	Email
Ibrahima Sory Camara	Director of Public Investments	+224 627 27 30 30	dnip@mefp.gov.gn
Implementing Agency:	Ministere de l'Energie, de l'Eau et des Hydrocarbures (MEHH)		
Contact	Title	Telephone No.	Email
Aissata Kaba Bah	Conseillere Principale	+33 637791091	aissata.kaba@outlook.com

**PROJECT FINANCING DATA (US\$, Millions)****Maximizing Finance for Development**

Is this an MFD-Enabling Project (MFD-EP)? Yes

Is this project Private Capital Enabling (PCE)? No

**SUMMARY**

<b>Total Operation Cost</b>	<b>499.09</b>
<b>Total Financing</b>	<b>499.09</b>



<b>of which IBRD/IDA</b>	<b>200.00</b>
<b>Financing Gap</b>	<b>0.00</b>

**DETAILS**

**World Bank Group Financing**

International Development Association (IDA)	200.00
IDA Credit	200.00

**Non-World Bank Group Financing**

Trust Funds	10.09
Global Environment Facility (GEF)	10.09
Counterpart Funding	15.00
Borrower/Recipient	15.00
Other Sources	274.00
EC: European Investment Bank	274.00

**IDA Resources (US\$, Millions)**

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
National Performance-Based Allocations (PBA)	200.00	0.00	0.00	0.00	200.00
<b>Total</b>	<b>200.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>200.00</b>

**Expected Disbursements (US\$, Millions)**

WB Fiscal Year	2025	2026	2027	2028	2029	2030	2031	2032
Annual	0.00	25.00	30.00	25.00	50.00	50.00	20.00	10.09
Cumulative	0.00	25.00	55.00	80.00	130.00	180.00	200.00	210.09



**PRACTICE AREA(S)**

**Practice Area (Lead)**

Water

**Contributing Practice Areas**

Environment, Natural Resources & the Blue Economy

**CLIMATE**

**Climate Change and Disaster Screening**

Yes, it has been screened and the results are discussed in the Operation Document

**SYSTEMATIC OPERATIONS RISK- RATING TOOL (SORT)**

Risk Category	Rating
1. Political and Governance	● High
2. Macroeconomic	● Substantial
3. Sector Strategies and Policies	● Substantial
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● Substantial
6. Fiduciary	● High
7. Environment and Social	● High
8. Stakeholders	● Substantial
9. Other	● Substantial
10. Overall	● High

**POLICY COMPLIANCE**

**Policy**

Does the project depart from the CPF in content or in other significant respects?

Yes  No



Does the project require any waivers of Bank policies?

Yes  No

**ENVIRONMENTAL AND SOCIAL**

**Environmental and Social Standards Relevance Given its Context at the Time of Appraisal**

E & S Standards	Relevance
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS 10: Stakeholder Engagement and Information Disclosure	Relevant
ESS 2: Labor and Working Conditions	Relevant
ESS 3: Resource Efficiency and Pollution Prevention and Management	Relevant
ESS 4: Community Health and Safety	Relevant
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
ESS 8: Cultural Heritage	Relevant
ESS 9: Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank’s due diligence assessment of the Project’s potential environmental and social risks and impacts, please refer to the Project’s Appraisal Environmental and Social Review Summary (ESRS).

**LEGAL**

**Legal Covenants**

**Sections and Description**

The Recipient shall maintain throughout Project implementation the following staff within the PCU: a Project coordinator, an operations manager, a social safeguards specialist, an environmental safeguards specialist and a gender specialist, by one month after the Effective Date, or such later date as agreed by the Association, as well as an external auditor not later than two (2) months after the Effective Date, or such later date as agreed by the Association, all with qualifications and under terms of reference acceptable to the Association.

The Recipient shall establish by one month after the Signing Date and thereafter maintain at all times during the implementation of the Project a steering committee with composition and mandate acceptable to the Association.



The Recipient shall recruit, by one month after the Effective Date, and thereafter maintain throughout Project implementation, a verification agent (“Verification Agent”) with qualification, experience and under terms of reference satisfactory to the Association, to undertake the [annual] verification of the achievement of the results under the PBCs, in accordance with the Verification Protocol.

The Recipient shall, not later than [November 30] in each calendar year during Project implementation, prepare and furnish to the Association, a work plan of Project activities proposed for implementation in the following calendar year.

The Recipient shall by one month after the Signing Date, enter into collaboration agreements between the PCU and the implementing partners (MUHAT/DATU; OGPNRF and the Customs Authority).

The Recipient shall establish by one month after the Signing Date, or such later date as agreed by the Bank, and thereafter maintain, throughout Project implementation, within MEHH, the Project Coordination Unit (“PCU”) with composition and resources acceptable to the Bank; assisted by DNH, AREE and DATU and relevant technical directorates for technical implementation; all as described in the Project Implementation Manual.

The Recipient shall no later than one month after the Effective Date, or such later date as agreed with the Association, prepare, adopt and thereafter carry out the Project in accordance with, a Project implementation manual (“Project Implementation Manual” or “PIM”) setting forth rules, methods, guidelines, and procedures for the carrying out of the Project

The Recipient shall, no later than one (1) month after the Signing Date, enter into collaboration agreements, with the implementation partners, each, within its respective institutional mandate, as set forth in this Agreement and the relevant Collaboration Agreement

**Conditions**

Type	Citation	Description	Financing Source
Effectiveness	Delegated management to SEG	The Delegated Management Contract have been duly executed, on terms and conditions acceptable to the Association, between the Recipient, acting through the Project Coordination Unit, and SEGs	IBRD/IDA
Disbursement	Preparation of two RAPs	For payments under Category (2), unless and until the Recipient has prepared and adopted two (2) Resettlement Action Plans in accordance with the ESCP and satisfactory to the Association	IBRD/IDA
Disbursement	PBCs	For payments under Category (3) with respect to each PBC, as set forth in	IBRD/IDA



		<p>Schedule 4, for which a withdrawal request has been submitted, until and unless the Recipient has also submitted: (i) evidence, in form and substance satisfactory to the Association, of the Eligible PBC Expenditures paid; and (ii) supporting documentation confirming the Recipient's achievement of the respective PBC or PBCs.</p>	
Effectiveness	GEF Grant Agreement	<p>The GEF Grant Agreement has been executed and delivered, and all conditions precedent to its effectiveness (other than the effectiveness of this Agreement) have been fulfilled." There is a cross-effectiveness condition in the Grant Agreement, since on the Bank side the project is financed by IDA + the GEF grant</p>	IBRD/IDA



## I. STRATEGIC CONTEXT

### A. Project Strategic Context

1. **Guinea is a resource-rich, lower middle-income country (LMIC) with a population of 14.2 million people (2024)<sup>1</sup>, located on the west coast of Africa.** The country is uniquely endowed with natural resources, including exceptional mineral deposits, abundant water resources, favorable conditions for agriculture, as well as extensive forest systems and biodiversity. Despite its riches, Guinea has a relatively low GDP per capita of US\$1,564 as of 2023. After averaging 4.5 percent between 2000 and 2022, Guinea's economic growth reached 6.7 percent in 2023 driven by strong mining and agriculture performance. Thanks to stable transport costs and prudent fiscal and monetary policy, inflation decreased from 10.5 percent in 2022 to 7.8 percent in 2023.

2. **The human development needs in Guinea are substantial.** Despite relatively robust GDP growth, weak mining linkages to non-mining sectors, headwinds from Dutch disease dynamics, and external shocks have limited job creation and poverty reduction. Guinea's international poverty rate, measured at a US\$3.65 threshold for LMICs, increased from 46.6 percent in 2018 to an estimated 51.4 percent in 2023.<sup>2</sup> About 63 percent of the rural population lives in poverty, compared to 22 percent in urban areas. Guinea is currently ranked 182<sup>nd</sup> out of 192 countries in the Human Development Index (HDI) with an average life expectancy of 59 years, a stunting rate of 26 percent among children under five, and an adult literacy rate of 45 percent.<sup>3</sup> Urban youth and women are among the most vulnerable groups, particularly in agricultural areas and in the poorest quintiles. As for gender, Guinea was ranked 182 out of 191 countries on the Gender Inequality Index in 2021, placing it in the bottom 5 percent worldwide.<sup>4</sup> Girls are more likely not to attend school, and more likely also to drop out due to early marriage or pregnancy.

### B. Sectoral and Institutional Context

3. **Guinea is known as West Africa's "water tower" but water resources are not adequately monitored.** The country is endowed with 1,165 rivers spread over 23 sub-basins, 14 of which are shared with neighboring countries, including the Niger, Senegal and Gambia rivers. Groundwater resources are also substantial, estimated at 13,000 billion m<sup>3</sup>. Although Guinea's water resources are only partially tapped, their sustainable management is impaired by weak institutional capacity to monitor water use and insufficient data on surface and groundwater resources. There has been in recent years the proliferation of private boreholes – which are not well monitored – and this has in turn raised concerns about the quality and quantity of aquifers. More research is needed in this area.

4. **Expected impacts of climate change include:** (i) an overall increase in average temperatures of 2.2°C by 2050; (ii) more volatility and uncertainty in average annual rainfall by 2050, together with a change in the frequency and seasonal distribution of precipitation; and (iii) a rising sea level. Such trends carry the risk of significant impacts on agriculture,

<sup>1</sup> Guinea's population grows at about 2.4 percent per year (UN, World Population Prospects – 2022 Revision)

<sup>2</sup> [October 2024 World Bank Macro Poverty Outlook \(MPO\)](#)

<sup>3</sup> In 2020, the Human Capital Index (HCI) was estimated at 0.4, indicating that a person born in Guinea may only be 40 percent as productive in adulthood compared to if they had enjoyed full education, health, and employment. Human Capital Index Score for Guinea, <https://data.worldbank.org/indicator/HD.HCI.OVRL?locations=GN>

<sup>4</sup> The Index was developed by the United Nations Development Programme, as cited in *Unlocking Women's and Girls' Potential - The Status of Women and Girls Relative to Men and Boys in Guinea: Guinea Gender Assessment*, May 2023. <https://documentsinternal.worldbank.org/search/34056858>



forestry, water resources and coastal zones, among others. The region is considered moderately sensitive to both increasing droughts and flooding, but the frequency and severity of fires are expected to increase. Annex 2 includes an overview of how activities under the proposed project will contribute to climate resilience.

5. **Human activities in the Kankoure basin, part of the Samou sub-basin that supplies Greater Conakry's water, are impacting water resources.** Conakry's water supply during the dry season depends almost exclusively on the Baneah dam reservoir<sup>5</sup> (264 million m<sup>3</sup> storage) on the Samou River, and on the small Kalé (9 million m<sup>3</sup>) and Grandes Chutes (2 million m<sup>3</sup>) reservoirs downstream. Increased anthropogenic pressure, deforestation, and slash-and-burn agriculture, especially on slopes, contribute to soil degradation and vulnerability to heavy rainfall, which further increases sediment transport. Industrial activities, especially bauxite mining is also a cause of land degradation and high-water turbidity. As a result, the precipitation that falls on these lands, when drained by the Samou River, is heavily loaded with suspended solids.<sup>6</sup> Furthermore, increased erosion leads to reduced groundwater recharge, which in turn reduces the "base flow" of the Samou river and, consequently, the filling of the main reservoir outside of wet periods.

6. **Aware of these issues, the Government of Guinea (GoG) has announced its intention to create the Gangan National Park (GNP) as part of the expansion of its Protected Areas Network to increase national ecosystem services.** The future GNP will integrate a significant part of the Samou sub-basin upstream of Baneah and Grandes Chutes dams to maintain and restore ecosystem services including those related to water quality and quantity, in collaboration with local communities. Moreover, the Government developed the *Politique Nationale de l'Eau* (National Water Policy) in 2018, which aims to implement integrated water resources management (IWRM). The 1994 Water Law is currently being revised under the IDA funded Natural Resources, Mining and Environment Project (P168613).

7. **The water sector is under the authority of the Ministry of Energy, Water Resources and Hydrocarbons (*Ministère de l'Energie, de l'Hydraulique et des Hydrocarbures, MEHH*).** The National Directorate of Water Resources (*Direction Nationale de l'Hydraulique* or DNH), within MEHH, is responsible for managing water resources. However, DNH lacks enough technical staff and has inadequate financial resources to carry out reliable monitoring of surface and groundwater resources. The *Société des Eaux de Guinée* (SEG), the state-owned utility, was established in 2001 and is mandated to provide potable water services in urban areas under the overall authority of MEHH. After a period of private provision of water services through an affermage (lease) contract between 1989 and 2001, the public sector regained control when SEG was created in 2001. Another agency, *Service National d'Aménagement des Points d'Eau* (SNAPE), is responsible for rural water services under the Ministry of Territorial Development (*Ministère de l'Aménagement du Territoire*).

8. **Access to water and sanitation services in Guinea is limited and utility services are unreliable.** While access to basic drinking water is estimated at 71 percent in 2022 (92 percent in urban areas, 59 percent in rural areas), piped water service is only available to 23 percent of the population nationwide (47 percent in urban areas, 8.1 percent in rural areas). The last investments in new water production date to 2013 and water supply has not kept up with the growing population. Urbanization (estimated at 2.8 percent per year in the project area)<sup>7</sup> has resulted in the establishment of many new settlements in Greater Conakry, some of which lack formal water services.<sup>8</sup> Faced with insufficient water supplies, SEG is forced to schedule regular water disruptions for existing customers. Consequently, residents resort to expensive, poor

<sup>5</sup> Baneah is mainly used for storage and electricity production at present.

<sup>6</sup> SEG's water intake at the Grandes Chutes site has reached more than 100 Nephelometric Turbidity Units (NTU), a measure of turbidity, during the rainy season since bauxites operations started in the area. The NTU ranges from 0 (pure water) to over a thousand (for highly polluted water) and a value of over 100 indicates moderate to high levels of pollution.

<sup>7</sup> World Bank data estimates the overall urbanization rate in Guinea at 3.5percent:

<https://data.worldbank.org/indicator/SP.URB.GROW?locations=GN>

<sup>8</sup> Between the last two censuses of 1996 and 2014, the population has thus increased by nearly 50percent in Conakry, i.e. an average annual growth rate of 2.4percent. In peripheral municipalities, the growth rate is even higher; around 5percent.



quality and carbon intensive options, such as informal water trucks (which run on fuel) and drilling private wells (with gas powered pumps). Low-income families, women and girls bear the brunt of the lack of good services in terms of cost and time spent fetching water.<sup>9</sup>

9. **Water tariffs have not been adjusted since 2013 and as a result SEG does not have sufficient revenue to cover its operating costs.** Moreover, 60 percent of water consumption comes from large administrative customers, but they do not pay their bills consistently. In response to these challenges, the pipeline IDA Fiscal Sustainability and Efficiency Reforms Development Policy Financing (DPF) (P501272), includes prior actions for water that will compel an increase in tariffs and the adoption of a new water tariff methodology.<sup>10</sup>

10. **SEG's commercial operations are too dependent on paper and in-person services.** Through the previous project, PUEG (P157782), SEG received a new customer management system in 2023 and a digital master plan for the utility was developed but lack of funding and technical capacity prevented its full implementation. SEG has established a utility turnaround plan, funded by the French Development Agency, AFD, in 2022, which is referred to as « NEMA » (*Notre Eau Maîtrisée et Accessible*). PEAG will support the implementation of NEMA with the expectation that SEG will become a more modern organization that operates in a more customer-oriented and efficient way.

11. **The energy and water regulator has so far focused on energy and has not fully fulfilled its mandate for water.** The regulator, the *Autorité de la Régulation des secteurs de l'Énergie et de l'Eau* (AREE), is tasked with developing tariffs for Cabinet's approval. It has been operational since 2018 and to date does not have sufficient capacity and influence to monitor and report on SEG's performance. AREE received technical assistance (TA) from the IDA-funded Electricity Access Scale-Up Project (P164225), and this support will be continued for the water functions under PEAG.

12. **Urban sanitation service delivery and governance arrangements need to be revised.** Access to basic sanitation service is estimated at 31 percent nationwide (47 percent in urban areas, 21.7 percent in rural areas). Urban areas, including most of Conakry, lack sewerage and rely on onsite sanitation solutions, comprised of household latrines and septic tanks periodically emptied by private entrepreneurs. However, it is common practice for fecal sludge to be disposed untreated in the environment. Sanitary conditions in schools and other institutions are often very poor. In Guinea, 14 percent of schools (4 percent in urban area and 23 percent in rural area) do not have any sanitation facilities on their premises and existing facilities are often dilapidated.<sup>11</sup> This lack of adequate facilities undermines girls' school attendance, especially during menstruation, and increases the incidents of disease from poor sanitary conditions.

13. **The organizational framework for sanitation weak,** exacerbated by duplications and the dispersion of responsibilities across four ministries<sup>12</sup> and various municipalities. The National Directorate of Land Use Planning and Urban Development (DATU), which falls under the Ministry of Urban Development, Housing and Regional Development (*Ministère de l'Urbanisme, de l'Habitat et de l'Aménagement du Territoire*, MUHAT), is tasked with designing sanitation policy and regulating sanitation services nationwide but it has a small budget and is severely understaffed and under

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<sup>9</sup> World Bank assessments showed that it is not unusual for households to spend up to 20 percent of their household budget on purchasing water from trucks. However, international guidelines (UNDP) recommend that, in terms of affordability, households should not spend more than 3 percent of their household budget.

<sup>10</sup> The DPF is a standalone US\$100 million operation that supports key reforms to expand fiscal space and increase resource use efficiency in Guinea. It offers the opportunity to reengage with the transition government on key policy challenges following a hiatus in policy engagement due to the coup in September 2021.

<sup>11</sup> Source: JMP 2023 – <https://washdata.org/data/downloads#GIN> based on *Annuaire statistique Enseignement Pré-scolaire, Primaire et Secondaire 2020-2021*.

<sup>12</sup> The four ministries include: the Ministry of Environment, the Ministry of Urban Planning Housing, and Land Use Planning (MUHAT), the Ministry of Territorial Administration and the Ministry of Public Works.



equipped. Significant reforms are needed to ensure fit-for-purpose institutions that can develop infrastructure and deliver quality sanitation services to the people.

### C. RELEVANCE OF HIGHER-LEVEL OBJECTIVES

14. **PEAG is fully aligned with the forthcoming Country Partnership Framework (CPF) for the FY26-30 period.** The CPF, which is expected to be submitted to the Board by September 2025, will build on Guinea’s new development plan called “Simandou 2040”. The project also complements the Guinea Country Climate and Development Report (CCDR)<sup>13</sup> which includes a focus on the water-energy nexus, and Guinea’s Nationally Determined Contributions (NDC), which include universal access to water and improving the knowledge of water resources as key priorities for adapting to climate change. PEAG is also aligned with the Least Developed Countries Fund (LDCF) programming strategy for the eighth Global Environment Facility replenishment (GEF-8), particularly for the LDCF’s Water theme. Similarly, the project incorporates nature-based solutions for climate adaptation, such as investing in soil stability and reforestation, to reduce excessive runoff of solid materials into water storage facilities due to changing rainfall patterns—another key theme of the LDCF strategy.

15. **The project is aligned with the Paris Agreement goals regarding mitigation and adaptation.** The project is consistent with the country’s first updated Nationally Determined Contributions (NDC), submitted to the United Nations Framework Convention on Climate Change (UNFCCC) in 2021, which deem integrated water resources management a central element of no-regret adaptation measures. The project is also consistent with the National Strategy on Climate Change of Guinea (published in 2019), which focuses on the promotion of sectoral measures to limit GHG emissions and integrating climate change into policies and strategies, among others.

16. **At this stage, large-scale private sector participation cannot be included in the project due to a weak enabling environment and insufficient data to inform private sector transactions.** However, a component on non-revenue water (NRW) through a performance-based contract with a private operator is included in the project scope. Moreover, the Government and SEG expect to mobilize private partners to finance future water treatment plants such as Yessoulou IV and build-operate-transfer (BOTs) arrangements for water stations in secondary cities. The World Bank and the International Financing Corporation (IFC) will support the authorities in preparing Phase 2 private sector arrangements, both under PEAG and by mobilizing trust funds, under a One World Bank Group approach that includes IFC and MIGA. Annex 3 includes a preliminary roadmap for private sector participation.

## II. PROJECT DESCRIPTION

17. **The Guinea Water and Sanitation Project (PEAG) is a successor to the previous Guinea Urban Water Project (PUEG, P157782)** that was implemented between 2017 and April 2024. PEAG is part of an Integrated Greater Conakry Water Supply Program (Greater Conakry Water Program in short) in which GoG plans to implement the investments recommended in Phase 1 of the Greater Conakry Water Supply Master Plan<sup>14</sup> developed in 2019 under the IDA funded PUEG. This US\$30 million IDA project catalyzed various financing partners through several years of funding foundational studies (Master Plans, sector strategies etc.), continuous dialogue with the Government and brokering the partnerships between the Government and financing partners. The aggregate effect of this upstream preparation, over the course of several years, is reflected in Figure 1.

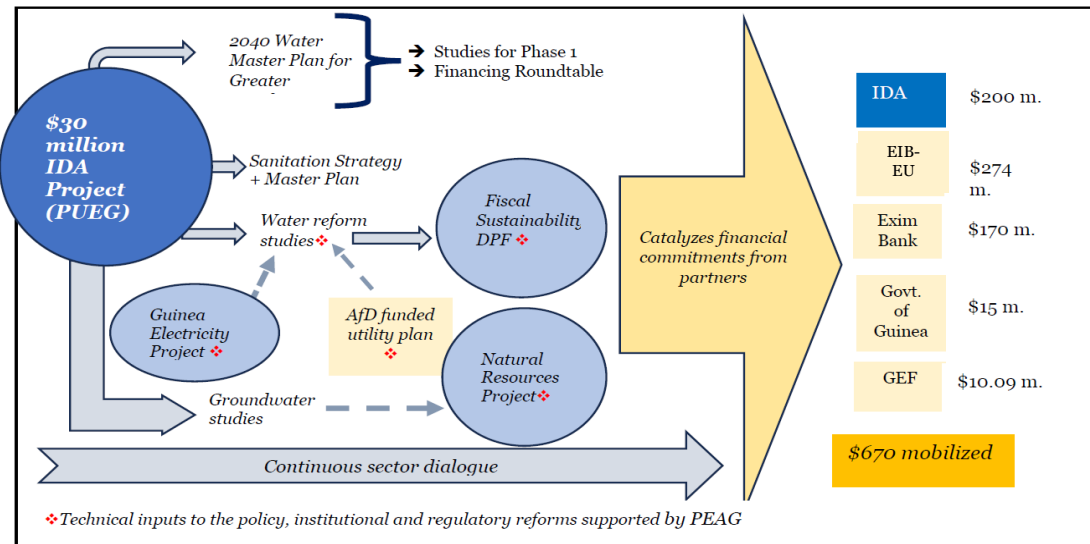
<sup>13</sup> The Guinea CCDR aims to support the Government in strengthening the resilience of its development to the impacts of climate change while exploring low-carbon solutions. It is expected to be completed in 2025.

<sup>14</sup> *Schéma Directeur d’Alimentation en Eau Potable du Grand Conakry* or the Greater Conakry Water Masterplan



18. **PEAG will finance the water investments under the first phase of the Greater Conakry Water Master Plan 2040.** Project financing includes: IDA’s US\$200 million; counterpart funding from GoG, which has committed US\$15 million for water distribution; the European Investment Bank (EIB), which has committed a €220 million (US\$245 million) loan and the European Union (EU), which has committed a grant of €26 million (US\$29 million) (EIB-EU are blending their finance for a total of €246 million or US\$274 million)<sup>15</sup> and the Global Environment Facility (GEF)’s US\$10.092 million, for a total of **US\$499.092 million**. In addition, Exim Bank India has provided parallel financing of US\$170 million for a separate project to finance a raw water intake at Grandes Chutes and a raw water pipeline to the Yessoulou IV treatment plant. Details on cofinancing and parallel financing are summarized in Annex 3.

**Figure 1. US\$30 million PUEG, an IDA funded Project, Leveraging and Mobilizing Partners for Greater Impact**



19. **The project includes three performance-based conditions (PBCs) to incentivize the implementation of institutional and policy reforms.** These PBCs, costed at US\$14 million (7 percent of the total IDA financing) are (i) PBC 1: Establishment of a national sanitation company and the adoption of its first contract-program with the government (US\$1 million); (ii) PBC 2: Adoption and implementation of the new tariff policy for drinking water for urban areas covered by SEG (US\$8 million) and (iii) Adoption of the State-SEG Concession and a new program contract (US\$5 million). A detailed roadmap of the policy, institutional and regulatory (PIR) reforms planned under PEAG is provided in Annex 5, with short- (6 years), medium- (10 years) and long-term (15 years) effects that the project should catalyze.

### A. Project Development Objective

20. The **project development objective** is to increase access to safely managed water services in Greater Conakry and to strengthen the operational and organizational performance of water and sanitation institutions in Guinea.

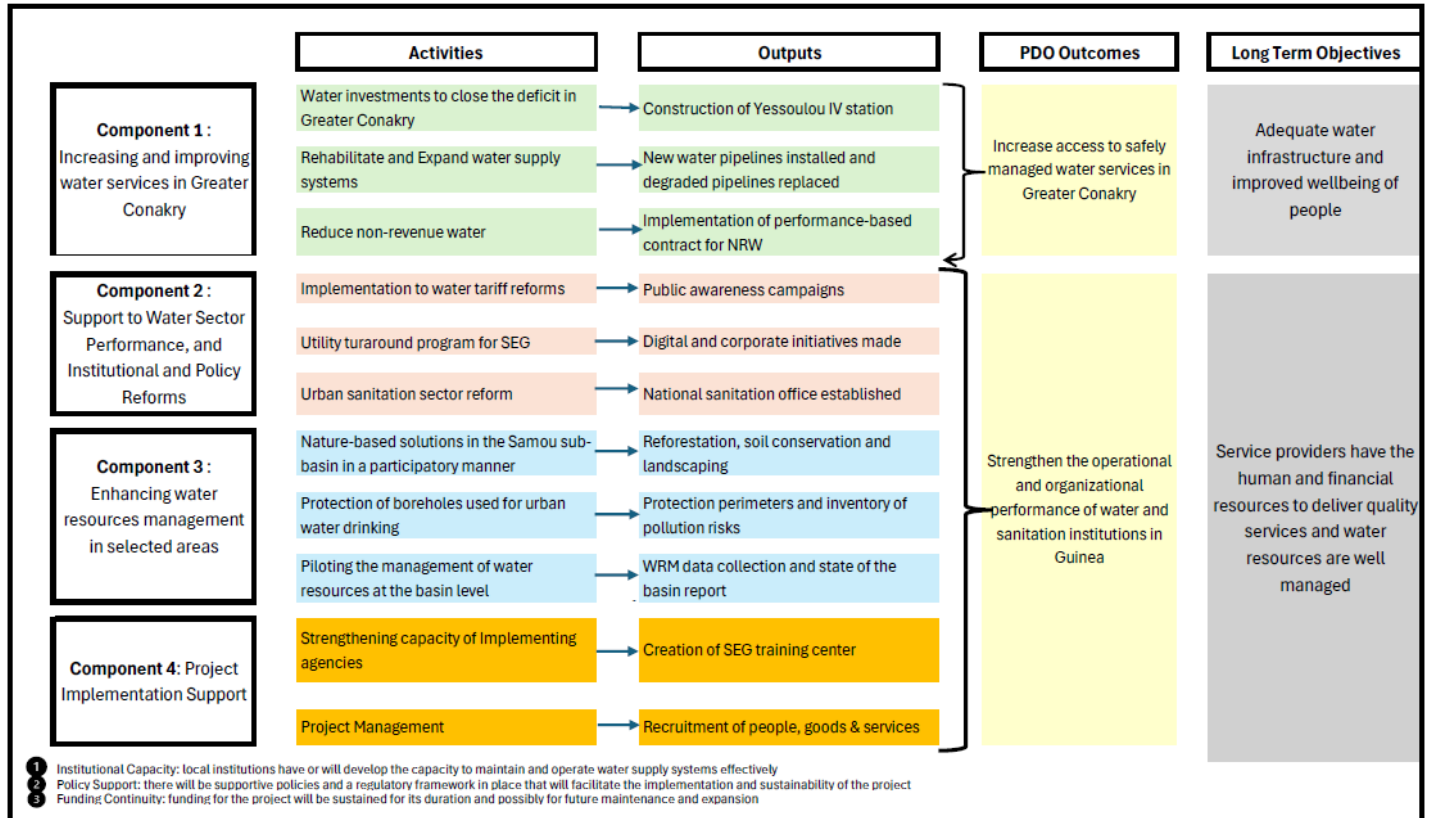
### B. Theory of Change and PDO Indicators

<sup>15</sup> Cofinancing arrangements are still being finalized.



21. The **theory of change** (Figure 2) illustrates the interconnection between investments in water supply, water and sanitation reforms, and project management.

Figure 2. Theory of Change



22. The following PDO level indicators are proposed: For outcome 1 (increase access to safely managed water services in Greater Conakry): (i) People provided with safely managed water services in the project area – of which female; of which youth (number) – this is a corporate indicator; (ii) People with enhanced water services (number); (iii) Reduction of non-revenue water (NRW) in the project area (percentage). For outcome 2 (strengthen the operational and organizational performance of water and sanitation institutions in Guinea): (iv) Adoption of the State-SEG Concession and a new program contract (yes/no) (PBC); and (v) Establishment of a national sanitation company and the adoption of its first contract program between the Government and the company (yes/ no) (PBC). Annex 1 shows the results framework.

### C. Project Beneficiaries

23. The expected total number of beneficiaries is 2,612,467, of which 572,200 will gain access to drinking water for the first time, and 2,040,267 people (already connected to SEG’s network) will benefit from improvement water services, in terms of better pressure and more hours of service. Students in 400 secondary schools will also benefits from better latrines and knowledge on good hygiene practices. Other beneficiaries include the personnel of sector institutions such as SEG, DNH, AREE, DATU and the *Office Guinéen des Parcs Nationaux et Réserves de Faune*, OGPNRF. Various firms,



NGOs and companies will gain contracts under the project. Lastly, local residents in the Kankoure basin will gain opportunities to work on Nature-based solutions (NBS).

#### D. Project Components

### COMPONENT 1: Increasing and improving water services in Greater Conakry (US\$435 million, of which EIB-EU US\$255 million, IDA US\$165 million and GoG US\$15 million)

#### Sub-Component 1.1 Increasing water production through a new treatment plant -US\$267 million (US\$99 million IDA and US\$168 million EIB-EU)

24. **PEAG will finance the construction of Yessoulou IV**, a new 200,000 m<sup>3</sup>/day water treatment plant in the existing Yessoulou complex operated by SEG. This intervention will be the first investment in new water production since 2013, when the Yessoulou III plant was commissioned. Yessoulou IV will significantly reduce Greater Conakry's water production deficit, reducing the time women and girls spend collecting water; reducing money spent to drill boreholes and purchase water and improving health outcomes through the provision of safe drinking water. The Yessoulou IV plant will include a 1MW photovoltaic system, accounting for 100 percent of total renewable energy use for this facility, thus contributing to climate mitigation. A mobile lab will be purchased to enable regular water testing.

25. **To complement the construction of Yessoulou IV, Exim Bank India will finance, under a separate project as parallel financing**, a new additional raw water intake and a 44-kilometer trunkline from Grand Chutes to Yessoulou, with civil works expected to start in mid-2025.<sup>16</sup> This trunkline will only service Yessoulou IV and will have the capacity to supply a new water station in Phase 2 of the Master Plan. In addition, EIB-EU will fund hydromechanical upgrades, nonstructural in nature, at the Grandes Chutes, Baneah and Kale dams to ensure an acceptable level of operational safety.<sup>17</sup> EIB-EU will also finance a 55 km treated water transmission pipeline to the reservoirs (US\$150 million).

#### Sub-Component 1.2 Storage tanks and distribution system - US\$130 million (US\$28 million IDA, US\$87 million EIB-EU and US\$15 million GoG)

26. **Because SEG has a sectorized network, IDA's investments will focus on the areas closest to the Yessoulou plant**, while EIB-EU and GoG will finance the downstream portion of the network up to the Conakry peninsular. Figure 3 illustrates the type and location of respective investments by IDA and other partners. PEAG will finance the construction of two reservoirs (500 m<sup>3</sup> in Kouria and 7,500 m<sup>3</sup> in Kagbelen); laying 117.5 km of distribution networks in the peri-urban municipalities of Maneah, Kouria and Kagbelen; the connection of 9,370 households to the network and the construction of 24 standposts. The distribution system is gravity-fed and some of the standposts will operate on solar energy, thus mitigating greenhouse gas emissions (GHG). The reservoirs will help mitigate the risk of climate-related hazards, such as flooding and drought, by storing excess water during heavy rain events. This water can then be released gradually over time, reducing the risk of downstream flooding and providing a reliable water source during dry periods to support agriculture, drinking water, and other vital needs. Additionally, connecting households to the water network will enhance communities' ability to cope with extreme weather events, particularly the extreme heat to which the area is highly prone,

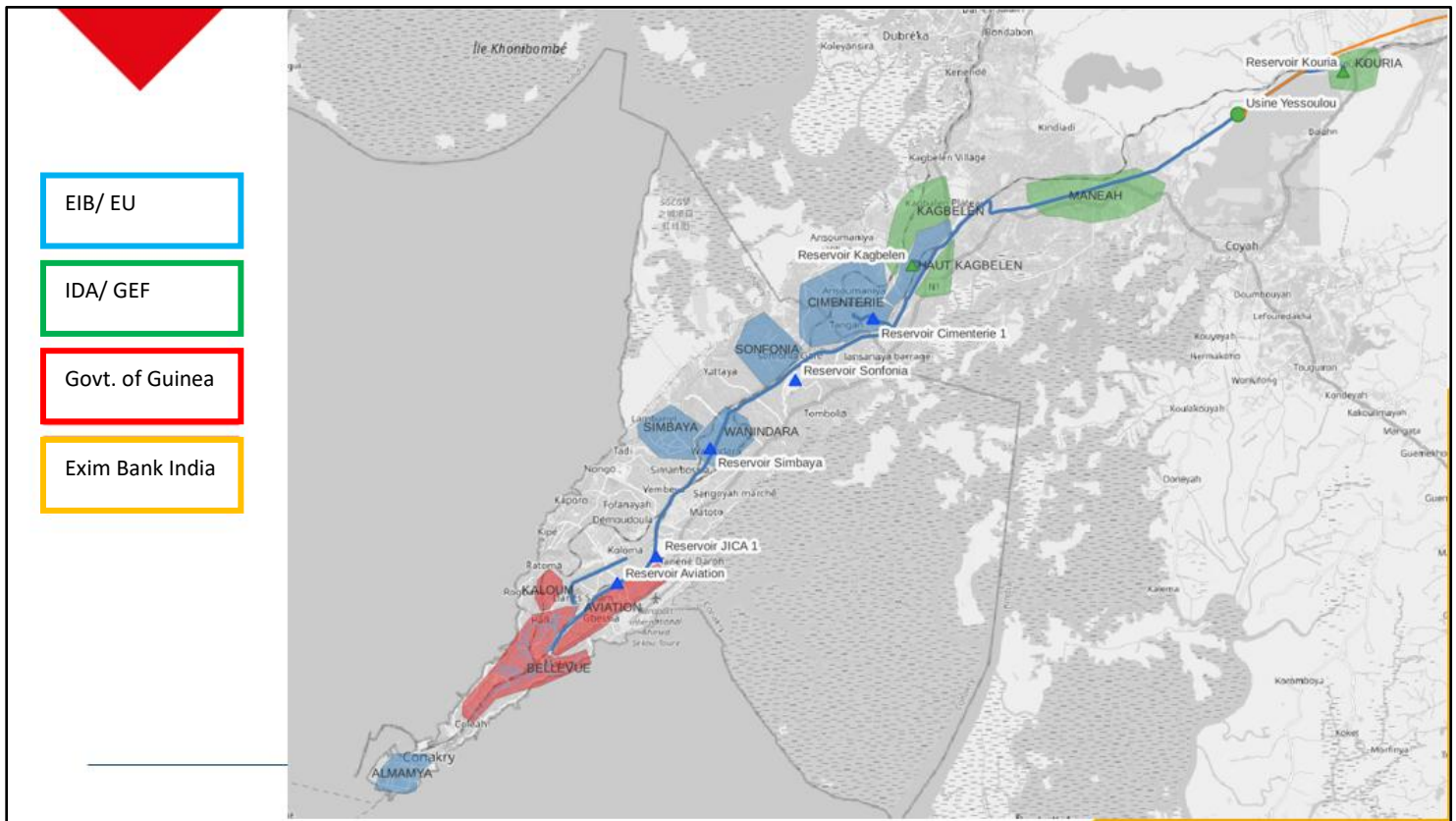
<sup>16</sup> The working calendar for completion of the water intake and water pipe works is estimated at 46 months. Therefore, if the works start on July 1, 2025, the completion of the works will be expected at the end of April 2029, leaving enough time to connect the Yessoulou station, which will be completed by then.

<sup>17</sup> Dam including instrumentation plans, operation and maintenance (O&M) plans, and Emergency Preparedness Plans (EPP). These works will be undertaken as per the dam safety studies developed by PUEG



by ensuring access to water for cooling. In parallel to IDA’s project, EIB-EU will finance complementary investments, including: (i) a new treated water transmission pipeline (55 kilometers) from Yessolou; (ii) five reservoirs serving the new distribution pipeline; and (iii) 299 kilometers of distribution pipelines to Kaloum (downtown Conakry); and (iv) 37,500 household connections. GoG will finance distribution works and household connections in two sectors of SEG’s network covering 30 kilometers.

Figure 3. Illustration of IDA financing relative to other financiers



27. **A pilot will be implemented to introduce prepaid meters in parts of SEG’s coverage zone.** All or part of the social connections will be equipped with prepaid meters, which will allow users to buy a specific water quantity according to their income and needs. Prepaid meters simplify the tasks of meter reading, billing, and collection and enhance affordability of services for users, which is important in view of the tariff reforms envisaged by the Government and supported by the DPF. The prepaid water meters will be connected to the communication network and will include a prepaid customer management application, 5 years of technical support to SEG by the system provider, and maintenance and subscription fees. To mitigate the risk that the meters might be rejected or even vandalized, a careful selection of the pilot customers will be made, favoring commercial clients first.

**Sub-Component 1.3 Non-revenue water (NRW) reduction - US\$25 million (IDA only)**

28. **This sub-component will address network and commercial inefficiencies in SEG’s coverage zone.** SEG’s network has an estimated yield of 51 percent due to degraded pipes, and there are few metered connections (only 22 percent of bills are based on metered volumes). The proposed NRW reduction program builds on the foundations laid by the



Commercial and Technical Criteria Improvement Program (PACT) carried out under PUEG.<sup>18</sup> With PEAG, the NRW component will consist of leak detection and repair; renewal of leaky pipes; continued sectorization of the distribution network; meter installation and other activities. However, unlike PACT, a two-stage performance-based contract for NRW reduction will be used to implement the activities. The first phase will be implemented as a pilot to develop an NRW baseline and test approaches in several representative sectors of SEG's network. The second phase will allow the scale-up of sectorization, undertake mains renewal, and rehabilitate metered connections. The performance-based contract will allow private sector participation in the urban water segment and will be a means of gradually familiarizing the water authorities about working with private operators. It also contributes to climate mitigation and adaptation by conserving water resources, thereby minimizing unnecessary extraction and enhancing efficiency of water use. Annex 3 provides more information.

#### **Sub-Component 1.4 Compensation of Project Affected Persons (PAPs) - US\$13 million (IDA only)**

29. **At GoG's request, IDA will finance the cost of compensation for persons affected by involuntary resettlement as per the resettlement action plan (RAP).** The Regional Vice President approved the memo to fund the resettlement costs on 20 February 2025. This will include people affected by works financed by IDA, EIB and GoG under PEAG. The cost estimates will include: (a) compensation for the affected assets (land, houses, structures, crops/trees); (b) assistance payments for relocation affected persons; (c) loss of income; (d) implementation of livelihood restoration program or activities; and (e) assistance for vulnerable persons. Lessons learned from PUEG and other projects in the World Bank's portfolio in Guinea, in which these costs were paid from counterpart funds, showed that the transfer of funds from the Government budget was often delayed, the compensation process was cumbersome and slow, and this in turn impacted the start of civil works. By covering the resettlement costs for all cofinancing partners, the World Bank can ensure that the operation is technically viable, and that implementation is agile.<sup>19</sup> The resettlement costs of the parallel financing provided by the Exim Bank In will be funded by the Government although the ESF will apply as Exim Bank India-financed activities are considered associated facilities.

### **COMPONENT 2. Support to Water Sector Performance, and Institutional and Policy Reforms (US\$24 million – IDA only)**

#### **Sub-Component 2.1 Support to the implementation of urban water sector reforms - US\$2 million (IDA only)**

30. **PEAG will implement the water policy reforms that were identified through studies and tools developed under PUEG,** including a tariff study, a new financial model for the urban water sector, a letter of sector policy (LPS) and a new program contract between the Government and SEG. Guinea has some of the lowest urban water tariffs in West Africa, and the last tariff adjustment was in 2013.<sup>20</sup> Since then, SEG has not been able to cover operations and maintenance (O&M) costs, let alone finance new investments. PEAG will leverage the pipeline Guinea Fiscal Sustainability and Efficiency Reforms Development Policy Financing (DPF) (P501272) (under preparation), which includes prior actions related to the revision of water tariffs (an average increase of 30 percent in tariffs for all customers, including an increase of 16percent for households) and the adoption of a new tariff methodology. Annex 3 provides more details. These reforms are necessary to enable cost recovery for water services, which is crucial in view of the forthcoming increase in water supply, new customers and the need for O&M for new infrastructure. Boosting SEG's financial viability will also enable private sector investments, including for Phase II of the Master Plan.

<sup>18</sup> PACT completed the installation of 12,192 individual meters, the renewal of 2.5Km of main pipes, the repair of 75 mains leaks and of 1097 household connection leaks, and the installation of 794 formal water connections.

<sup>19</sup> Neither EXIM Bank India nor EIB cover resettlement costs under their policies. Counterpart funding is not an option given Government's limited fiscal resources.

<sup>20</sup> The study showed that tariffs applied to individual customers did not increase between 2002 and 2008. Then, they increased in 2008 by approximately 50 percent and remained constant until 2012.



31. **PEAG will support the Government and SEG to undertake customer awareness campaigns to facilitate the rollout of the tariff reforms.** The campaigns will address concerns about affordability for vulnerable people and inform SEG's customers about its new digital payment mechanisms. PEAG will fund communication materials, training for SEG, AREE, MEHH and other government officials on the financial model, which is meant to be updated regularly; coordination with social protection entities; and any other needed support measures to implement sector reforms. To incentivize the reforms, PBC 2.1 is proposed on the application of the new tariff methodology. Specifically, the methodology defines the tariff adjustment schedule (an additional 16 percent increase in 2026) and will introduce indexation of tariffs to inflation. Annex 3 provides more details. PBC 2.1 will ensure that these measures are implemented as part of the effort to bring the urban water sector closer to cost recovery. Moreover, the campaigns will entice people to switch from boreholes to piped water service from SEG, thereby reducing the exploitation of groundwater and enhancing climate resilience. PBC 2.1 (US\$8 million) disburses against civil works for the distribution network in the Maneah sector (US\$4 million) and US\$4 million for civil works for the distribution network in the Kagbelen sector (US\$4 million).

32. **The project will help to strengthen AREE's role in applying tariffs, monitoring the performance of SEG, and contributing to sector dialogue.** Technical assistance, training and peer-to-peer mentorship will be provided to AREE on the basis of an institutional roadmap that was developed during preparation.

#### **Sub-Component 2.2 Support to SEG utility strengthening and turnaround program - US\$10 million (IDA only)**

33. **SEG developed a utility transformation plan, NEMA (*Notre Eau Maîtrisée et Accessible*)<sup>21</sup>, that PEAG will implement.** NEMA aims to improve the organizational performance of the utility on aspects such as asset management, customer service, digitalization, human resources and so forth (Annex 3 provides more detail). NEMA comprises ten (10) priority projects, the implementation of which will require the designation of dedicated teams within SEG and the recruitment of technical assistance to support implementation of the plan with PEAG support. While all of NEMA's components are important, digitalization promises to have the most transformative impact on the utility, as it cuts across all the corporate and technical functions of the utility.

34. **PBC 3 is included to incentivize the adoption and implementation of a new concession contract and a new program contract by the Government and SEG and its implementation.** Specifically, the regulator, AREE, will monitor the key performance indicators (KPIs) included in the contract and will publish regular status reports on the execution of the contract. In addition, SEG will be obliged to submit its financial statements for independent audits and the regulator will review and validate the audited statements, which will subsequently be published. PBC 3 (US\$5 million) disburses against technical assistance and equipment for SEG's NEMA utility program (US\$1 million) and for project management costs (US\$4 million). The improved sector governance brought about by these changes will also help attract the private sector and other DFIs for future investments.<sup>22</sup>

#### **Sub-Component 2.3 Support to sanitation governance arrangements - US\$2 million (IDA only)**

35. **While PEAG cannot finance sanitation infrastructure investments, it will support the Government in strengthening the sanitation governance arrangements,** particularly through the creation of a new sanitation utility. PEAG will provide technical assistance to the authorities to develop the roadmap for the new utility, develop the needed legal decrees, and equip and train the new personnel of the office. PBC 1 (US\$1 million) on the creation of a new sanitation entity is proposed to incentivize the reform. PBC 1.1 (US\$500,000 in total) will disburse against the expenditures under Component 2.3, including: the TA firm, equipment for the new company and consulting services. PBC 1.2 (US\$500,000)

<sup>21</sup> NEMA was developed through a project funded by *Agence Française de Développement* (Afd).

<sup>22</sup> The Government and SEG plan to develop most of Phase 2 water investments with the private sector, through build-operate-transfer (BOT) arrangements for most of the water assets, both in Greater Conakry and the interior cities.



will disburse against sub-component 4.1 on project management, to ensure that there is an incentive for the project implementing agencies as a whole to support the sanitation reform.

36. **In parallel to the organizational reforms, PEAG will support the professionalization of fecal sludge service providers.** These providers include masons, septic tank empties and truck operators that typically have few means to operate safely or to invest in new operations. Support will be provided to MUHAT under this component for better regulation, through a licensing and training program to help these entrepreneurs dispose of fecal sludge in the new wastewater facilities. This support, comprising studies, consulting services and technical assistance, will complement the investments made by other development partners in wastewater treatment infrastructure, including those financed by the Kingdom of Morocco and the Islamic Development Bank. In addition, PEAG will support the Government to mobilize additional financing for the construction of fecal sludge treatment plants or other sanitation infrastructure that the new utility could be responsible for implementing. PEAG will support the new entity to integrate climate considerations in the design of future wastewater infrastructure, so that methane is captured and measured appropriately.

#### **Sub-Component 2.4 Water, sanitation and hygiene (WASH) in schools - US\$10 million (IDA only)**

37. **PEAG will fund the construction or rehabilitation of water, sanitation and hygiene (WASH) facilities in secondary schools in Greater Conakry.** These facilities comprise latrine blocs, with pour or flush toilets and handwashing stations and they will be segregated by gender, with separate latrine blocs for teachers and access ramps for the disabled. The latrine blocs will be aligned with the national WASH standards adopted by the Ministry of Education in 2021. To ensure maintenance of the latrines, the project will create synergies with the pipeline Expanding Learning and Lives through Education and Skills (ELLES) (P501342) project, which aims to provide quality education to adolescent girls in Guinea. ELLES will develop school grants which will provide funds for schools and teacher-parent groups to maintain school infrastructure. PEAG will also provide funding to community groups and NGOs to support hygiene education and latrine maintenance.

### **COMPONENT 3. Enhancing water resources management in selected areas (US\$11.262 million, of which US\$9.262 million GEF and US\$2 million IDA)**

#### **Component 3.1 Nature-based solutions (NBS) to control soil erosion and reservoir sedimentation (US\$8 million - GEF)**

38. **The project will help restore and protect ecosystems through nature-based solutions (NBS),** ensuring the long-term resilience of the areas upstream of the Baneah and Grandes Chutes Dams. This sub-component will be implemented by the Guinean Office of National Parks and Wildlife Reserves (*Office Guinéen des Parcs Nationaux et Réserves de Faune*, OGPNRF) of the Ministry of Environment, Water and Forestry under the overall supervision of the PCU of the MEHH. Two main activities are proposed. First, in selected areas of the Samou sub-basin upstream of the dams, soil restoration and conservation measures will be implemented to control erosion and maintain the ecological integrity and functionality of the watershed. These interventions will include improving hill terraces for cropland, revegetating denuded slopes to prevent landslides, and reclaiming degraded forest and grasslands to enhance biodiversity and water retention. Non-governmental organizations (NGOs) will be engaged to work closely with local communities, ensuring participatory implementation and linking conservation efforts to income generating activities (IGA). Second, complementing these upstream restoration efforts, the project will also support natural regeneration through the protection and management of ecosystems in the newly designated Gangan National Park (GNP). Activities will include demarcation, zoning and stakeholder consultations for the classification of the GNP; alongside operational support for OGPNRF rangers to conduct



patrols that mitigate deforestation, pollution, and other threats to ecosystem health and water quality.<sup>23</sup> The work of the Office and its rangers in the national park will be conducted as per World Bank guidance on protected areas. By integrating NBS as a guiding principle, this initiative aims to strengthen climate resilience, safeguard biodiversity, and ensure the sustainable management of vital water resources. Annex 3 provides further details and Annex 7 contains a map of the project area relevant to this component.

### **Component 3.2 Community engagement for sound water resource management (US\$1.262 million - GEF)**

39. **The Konkoure basin, including the Samou sub-basin, is a key agricultural area**, particularly known for its rice production downstream of dams before the river flows into the mangrove ecosystem and sea. Anticipated additional withdrawals of approximately 200,000 m<sup>3</sup> per day in the upper basin<sup>24</sup>—more than double current levels—are projected to have minimal impact on rice availability; however, engaging local farmers and stakeholders will be crucial for aligning agricultural practices with sustainable water use. This sub-component will support the DNH in establishing a Basin Committee as a pilot for inclusive water governance, in line with the Water Act. This committee will integrate a diverse range of stakeholders to ensure all basin voices are heard, with additional gender inclusion and balance within the committee. The Basin Committee will develop a Basin Profile, a Water Resources Assessment, and a State of the Basin Report. These foundational studies will provide a shared understanding of the basin's hydrological and socio-economic dynamics, helping guide water allocation decisions and gradually building toward a comprehensive, community-driven basin plan. Stakeholder involvement will include gender considerations, ensuring participation of women and other stakeholder groups.

40. **This component will complement the IDA-funded regional project, Development, Resilience and Valorization of Transboundary Water for West Africa (DREVE) (P505175)**, currently under preparation. DREVE includes Guinea in its scope and is will also support capacity building of DNH and local water committees based on sub-regional good practices, especially through activities within the Senegal and Niger River Basins.

### **Sub-Component 3.3. Protection perimeters for water supply boreholes - US\$2 million (IDA only)**

41. **Protection perimeters will be established around SEG-operated boreholes supplying water to Greater Conakry to ensure the production of safe drinking water.** This sub-component will support the implementation of the Water Act by establishing pilot protection perimeters around boreholes that supply public drinking water. As detailed in Annex 3, significant changes in rainfall patterns, coupled with anthropogenic land degradation, have led to increased surface runoff and sediment transport, which in turn have compromised water quality. These perimeters are designed to protect public health by minimizing the risk of groundwater contamination from point sources. Measures in the "immediate" protection perimeter include clarifying land utilization to ensure it does not impact water quality, installing fencing and landscaping around the wellfield, including filling in low-lying areas to prevent surface water stagnation. In the absence of national regulations, the extension of the "close" protection perimeter will follow international best practices, such as encompassing the entire catchment area for a groundwater transfer time of 50 days. Within this extended area, the project will conduct a pollution risk inventory and implement targeted measures to reduce the risk of accidental

<sup>23</sup> OGPNR is under the authority of the Ministry of Environment and Sustainable Development. Its rangers are paramilitary officials who carry out unarmed patrols in protected areas and national parks.

<sup>24</sup> The Samou River flows into the Badi River, which joins the Konkouré river not far downstream of the Souapiti dam, which reservoir has a storage capacity of 6,300 Mm<sup>3</sup>. The use of 200,000 m<sup>3</sup> during 180 days of the dry season amounts to 36 Mm<sup>3</sup> or 0.6percent of the storage capacity of the Souapiti reservoir. Hence, there should be no impact d/s the confluence with the Konkouré basin. Note that the basin area of the Konkouré River is 17,250 km<sup>2</sup>, and of the Baneah reservoir only 276 km<sup>2</sup> (1.6percent). Finally, the abstraction of 36 Mm<sup>3</sup> during the dry season amounts to 14percent of the storage capacity of Baneah reservoir (264 Mm<sup>3</sup>). Overall, very little impact to be expected.



groundwater contamination. This sub-component will also support the drafting of regulatory texts defining easements within those perimeters.

**Component 4. Project Implementation Support (US\$28,830,000 – of which US\$19 million EIB-EU, US\$9 million IDA and US\$830,000 GEF)**

**Sub-Component 4.1 Project Management (US\$26,480,000 – of which US\$19 million EIB-EU, US\$7 million IDA and US\$480,000 GEF)**

42. **MEHH will have overall responsibility for the project and will host a project coordination unit (PCU)** that will support the Government in the implementation of the project activities. A project management firm (*assistant à la maîtrise d'ouvrage* or AMO in French) will be recruited by EIB to support both the PCU and a separate SEG unit that will manage the civil works component. Importantly, the PCU and AMO will implement both the IDA and EIB projects in an integrated way. A Steering Committee, chaired by the Minister of MEHH or his representative, will provide strategic guidance for the project and will validate the annual program of works and budget. Costs related to the independent verification agency (IVA) to monitor the PBCs; technical and financial audits; and other eligible expenses will also be covered under this component.

**Sub-Component 4.2. Technical Assistance to Implementation Agencies (US\$2,350,000 – of which US\$2 million IDA and US\$350,000 GEF)**

43. **Technical assistance will be mobilized to support the implementing agencies** – AREE, DATU, OGPNRF and SEG – who will have considerable implementation roles under the project. In addition, the project will support the preparation of project packages for Phase 2 of the Greater Conakry Master Plan and the technical, environmental and social studies for Phase 1 of the Sanitation Master Plan. The project may also support additional studies and/ or technical support to implementing agencies to apply the recommendations of the CCDR as relevant.

**Component 5. Contingent Emergency Response Component (CERC), \$0**

44. **This zero-funded component will allow the Government to quickly mobilize funds in an emergency requiring immediate recovery and reconstruction response.** In the event of an eligible crisis or emergency, this component enables the Government to reallocate IDA project funds to disaster response and recovery purposes under streamlined procedures. It will therefore support Guinea's emergency preparedness and response capacity, including financing of critical emergency goods or emergency recovery and associated services, as well as the targeted provision of post-disaster support to affected households and individuals.

**E. Role of Partners**

45. **PEAG is dependent on the financial and technical contributions of partners, particularly EIB, EU, Exim Bank India and GEF** (Table 1). Their financing renders IDA's investments technically viable, while their technical expertise will help ensure innovation and sustainability in the works proposed. In the case of Exim Bank India, the raw water works it will finance are considered associated facilities to the PEAG's downstream investments. Lastly, the combined effect of the partners and IDA will incentivize the Government to deliver on the project in a timely and efficacious manner.



**Table 1. Overview of Development Partners in PEAG**

Name of partner	Nature of involvement/ description
European Investment Bank	Financing dam safety upgrades at Grandes Chutes, Baneah and Kale dams; plus transmission of treated water to reservoirs; and part of the distribution network in Greater Conakry.
European Union	Funding for reservoirs and the distribution network in the Gbessia, Ratoma and Matam neighborhoods in Conakry.
Export-Import Bank of India	Financing the upstream raw water intake at the Grandes Chutes Dam and the raw water pipeline from the dam to the new Yessoulou IV water treatment plant.
Global Environment Facility	Providing grant funding for nature-based solutions in the Samou sub-basin that will help reduce sedimentation, improve water quality and create institutional mechanisms for understanding and managing water resources in the basin.

**F. Lessons Learned and Reflected in the Project Design**

46. **A key lesson learned from the previous IDA project, PUEG, is the importance of technical readiness to reduce implementation challenges.** PUEG was prepared without the benefit of an existing project or well-established dialogue between the World Bank, the Government and development partners. Consequently, the feasibility studies for planned civil works were developed late in the project cycle and when the technical solution was not feasible, the project had to be restructured. Other important technical studies and project documents (e.g. the project manuals) were also developed after implementation was underway, which cost the project precious time and undermined disbursements and results. Learning from these mistakes, PEAG has ensured that a complete package for civil works was developed during preparation, including feasibility studies, bidding documents and environmental and social assessments.

47. **Another lesson learned from PUEG is to avoid concentrating all project management functions in a single project implementing unit.** PEAG will apply the lesson by sharing project management tasks between MEHH and SEG to build the capacity of national authorities and to enhance their ownership over the project. Moreover, a project management firm (AMO) will be hired to support both SEG and the PCU, thus bringing international expertise to bear on key project functions. As for procurement, the experience from previous IDA funded projects under MEHH has shown that procurement processes tend to suffer from weak inputs from technical entities; delays in approvals by Government authorities; and poor execution of contracts. Therefore, to address these challenges, PEAG will introduce Hands-on Expanded Implementation Support (HEIS) on procurement for the PCU and the authorities. HEIS will provide support in drafting bidding documents; in evaluation processes and to support managing contract indicators and other similar matters. HEIS has proven to help avoid delays and would make a meaningful contribution in PEAG.

48. **Resettlement of project affected persons (PAPs) can be delayed if the costs are covered by counterpart funds.** Under PUEG, the start of civil works was delayed because of the convoluted process involved in compensation of PAPs. Counterpart funds were meant to cover the cost but the transfer of the funds to the project accounts was significantly delayed. Learning from this experience, the World Bank has agreed with the Government that resettlement costs for PEAG will be covered by the project, which will help reduce the processing time and allow civil works – and development impacts – to materialize quickly.

49. **PEAG includes strong components on institutional and policy reforms, which is in keeping with global good practice for water infrastructure projects.** The World Bank’s experience with water investments around the world shows the importance of tying infrastructure projects with a focus on strengthening the institutions responsible for service



delivery. Moreover, projects should build into their design the inclusion of incentives that can help catalyze institutional reforms, particularly when the political economy is resistant to change.<sup>25</sup> To this end, the inclusion of PBCs in the project will ensure that needed reforms on sanitation, utility performance, regulation and tariffs are implemented. In addition, an institutional roadmap has been developed for the key institutions that will be supported by PEAG (Annex 5) to provide the vision of the kinds of transformative impacts expected in the short-, medium- and long-term.

50. **As for sanitation, a key lesson learned is the need to have strong governance arrangements in place before committing to major infrastructure investments.** This was a key insight of the Third Water Supply and Sanitation Project (P001075). This US\$49 million operation, which was implemented between 1997 and 2005, included a component on sanitation that constructed an entirely new sewerage system. While the wastewater treatment plant was completed, it never became operational because the capacity of local authorities to manage such a significant volume of civil works and maintain assets was very low. The lesson learned from this project is to build the capacity of the contracting authorities to plan infrastructure, supervise civil works and maintain assets. These lessons are being applied under PEAG, which will focus on strengthening the institutional governance of the sector first, and preparing the technical studies, before investments can be undertaken.

51. **The project also draws lessons from other World Bank operations in terms of operating in a low-capacity context.** Good practices adopted include: (i) recruiting PCU staff using a specialized HR firm, as was done in the Guinea-Mali Electricity Interconnection Project (P166042) to ensure the integrity of the hiring process; (ii) creating synergies with ongoing projects, as the NBS component does by building on the work of the Guinea Natural Resources, Mining and Environmental Management Project (P168613) in the Gangan Park; and (iii) using shared implementation arrangements for multi-donor operations to reduce transaction costs for implementing entities (see Section III) – a key insight from the Kandadji Project (P130174) and the Mali Urban Project (Kabala, P122826). Lastly, considering the political economy when dealing with a transition government, there will be frequent task team missions and regular dialogue with the authorities to spot challenges early and to find solutions.

### III. PROJECT IMPLEMENTATION

#### A. Institutional and Implementation Arrangements

52. **The following arrangements are proposed to ensure a cohesive and integrated project among the various financing partners** (IDA, EIB-EU, GEF and GoG). Figure 3 explains the institutional arrangements and Annex 4 summarizes the implementation entities.

53. **Project Steering Committee (PSC):** The PSC will be chaired by the Minister of Energy, Hydraulics and Hydrocarbons (MEHH) or his representative, and will provide oversight for project activities and ensure coordination among c under the project. The PSC will comprise representatives of key stakeholders, including the Ministry of Economy and Finance, MUHAT and its department, DATU; SEG and other relevant entities. The PCU will serve as the Secretariat for the PSC.

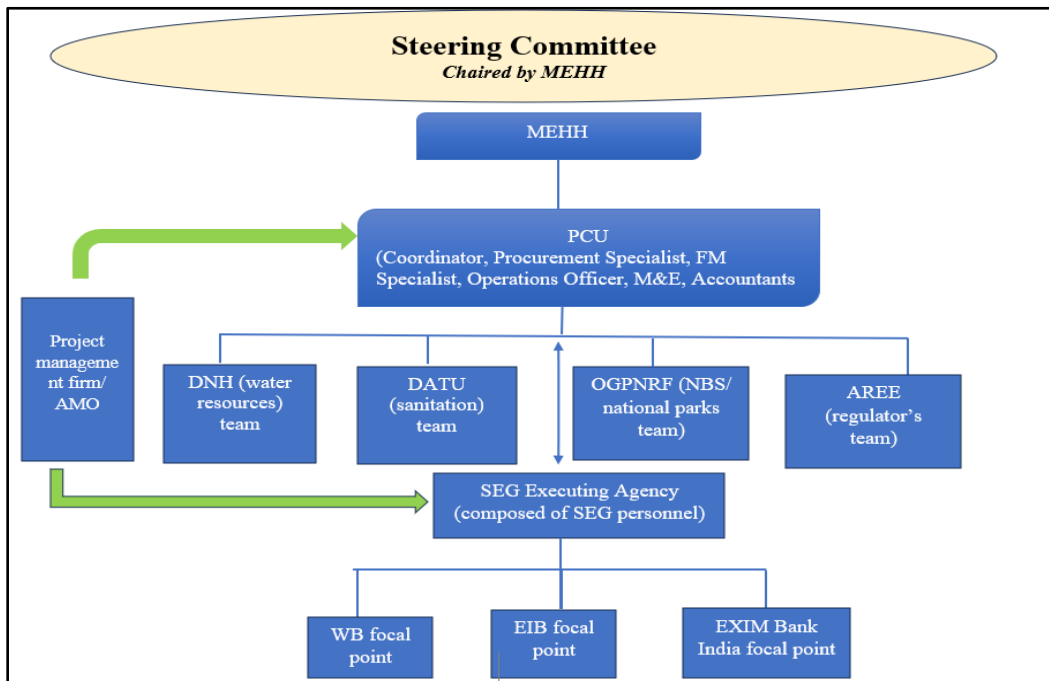
54. **Project Coordination Unit (PCU):** The PCU will implement the IDA, EIB-EU and GoG funded activities in an integrated way, thus mitigating risks of delay for any one of the sub-projects. It will be supported by a project management

<sup>25</sup>See, for example, *Aligning Institutions and Incentives* (World Bank, 2016), <http://documents.worldbank.org/curated/en/271871525756383450/Aligning-institutions-and-incentives-for-sustainable-water-supply-and-sanitation-services>; and *Policies, Institutions and Regulations: Adapting to a Changing World* (World Bank, 2021), <https://www.worldbank.org/en/topic/water/publication/adapting-to-a-changing-world>.



firm (AMO) that will be recruited internationally to reinforce the capacity of the PCU and SEG to implement project activities. The PCU will be responsible for project management and coordination, procurement, fiduciary and safeguards activities, monitoring and evaluation, communication activities and preparing progress and completion reports in accordance with World Bank rules and procedures. It will handle payments and disbursements, prepare the Annual Budgeting and Work Plan; ensure that annual financial audits are submitted on time and will also file and archive all project documents for auditing purposes. The PCU will carry out the bidding process as per the Procurement Plan; report on project implementation; support technical agencies in the development of various studies; organize meetings, missions and communication events; and issue regular reports on implementation progress.

Figure 3. Proposed organigramme of the implementation arrangements



55. **Collaboration agreements will be developed and signed between the PCU and the implementing agencies – DATU, AREE, SEG and OGP/NRF.** Through a collaboration agreement signed between the PCU and SEG, the implementation of the technical activities of Component 1 will be transferred to SEG (but this does not include procurement or fiduciary roles, which will be managed by the PCU).

56. **SEG Executing Unit:** SEG will be responsible for ensuring the technical integrity of Component 1 as a technical partner to the PCU. SEG will establish an internal executing unit (SEG-EU), which will include civil engineers, procurement specialists and environmental and social specialists to work with the PCU specialists. The SEG-EU will be responsible for preparing the engineering studies; preparing the technical specifications for the bidding documents for the works; supervising the implementation of works; approving technical documents related to civil works; commissioning of water civil works once completed; and contributing to monitoring and evaluation. By having the SEG-EU, it will ensure that not all project management functions are concentrated in the hands of the PCU alone. However, this unit will not have any fiduciary responsibilities<sup>26</sup>, but its procurement staff will undertake technical reviews of all procurement documents

<sup>26</sup> An initial assessment done by the World Bank specialists concluded that SEG did not have the capacity to manage these functions at this stage.



related to Component 1. The roles and responsibilities of SEG and the PCU will be defined in a collaboration agreement to be signed by the PCU and SEG and approved by the MEHH.

57. **A project management firm will be hired under EIB's financing to provide technical assistance to SEG-EU.** This will be the same firm (AMO) that will also support the PCU. This international firm, with strong water engineering experience and project management competencies, will collaborate daily with the SEG-EU on the execution of the Component 1 civil works and to ensure transfer of competencies on project management. The TA will provide an extra layer of technical review to ensure high quality of all documents and provide knowledge transfer and training to the SEG team on project management. In this way, by the closure of PEAG, SEG will be able to manage all aspects of projects by itself, in view of the second and third phases of the Greater Conakry Master Plan.

58. **The SEG-EU will include focal points for each of the parallel financiers supporting Component 1 implementation.** These individuals in close collaboration with the PCU, the SEG-EU will be responsible for the Component 1 management and coordination, safeguards activities, monitoring and evaluation, communication activities and preparing progress and completion reports in accordance with the co-financiers' rules and procedures in accordance with the cooperation agreement document to be signed by SEG and all co-financiers.

59. **The sanitation component will be implemented by DATU, which will serve as the technical lead agency for this activity, with the PCU providing implementation support on behalf of MUHAT.** A collaboration agreement will be developed between DATU and the PCU. A task team will be established within the National Directorate of Land Use Planning and Urban Development (DATU) to implement the sanitation sub-component, in close collaboration with the PCU. This unit will be responsible for all aspects of institutional reform of the urban sanitation sector, including preparatory studies for the creation of the National Sanitation Office. A qualified firm or consultant will be engaged to work directly with the DATU team on sanitation sector reform issues, including the legal and regulatory framework, training and capacity building, procurement, and organizational support.

60. **For the GEF and IDA funded components on NBS and WRM, the PCU will provide overall implementation support.** The PCU will have procurement, financial management, environmental and social, M&E and other cross-cutting functions. The Guinean Office of National Parks and Forest Reserves (OGPNRF), a department within the Ministry of Environment and Sustainable Development (MEDD) responsible for managing biodiversity and the country's protected parks, will lead the technical work on NBS activities under PEAG (Component 3.1), in collaboration with DNH. DNH, within MEHH, will play a supportive role on NBS and will be the technical lead on Component 3.3. To clarify roles, responsibilities and cost sharing, a collaboration protocol will be signed between OGPNRF and the PCU. OGPNRF is leading implementation of a component on managing protected areas under the IDA funded Guinea Natural Resources, Mining and Environmental Management Project (P168613).<sup>27</sup> PEAG will leverage these efforts to ensure smooth implementation of the NBS component.

61. **Despite the sound design, there are residual risks for the implementation phase related to the proposed implementation arrangements.** Moving away from a single, semi-autonomous PCU as was done in the previous project, PUEG, to a hybrid arrangement that devolves significant project execution to SEG while retaining a central PCU at the Ministry level will be a challenging shift. To optimize the success of the implementation arrangements, the following measures are proposed: regular portfolio reviews between the World Bank and the Ministry of Economy and Finance;

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<sup>27</sup> Through this project, OGPNRF is receiving technical support on the management of protected areas. The TA includes managerial training, developing information systems for the protected areas, provision of logistical support (equipment, a new office building) and others. A specific component (US\$ 19 million or 30 percent of the project financing) will provide the necessary tools and management systems that can help OGPNRF to scale-up to expand its coverage over other protected areas, including the Gangan National Park.



robust M&E arrangements to ensure information is shared; and performance reviews of PCU staff to be undertaken by MEHH and MEF.<sup>28</sup> Lastly, regular implementation support missions involving the World Bank and EIB task teams can help identify any implementation challenges and facilitate problem solving.

## B. Results Monitoring, Evaluation, and Verification Arrangements

62. **The PCU will prepare quarterly and annual progress reports for the World Bank and will leverage GEMS tools for activity mapping and data collection.** The PCU will collect and analyze all data and results generated under the Project and will prepare progress reports for the World Bank's review and approval. PEAG will use the Geo-Enabling Initiative for Monitoring and Supervision (GEMS) to map and monitor project investments to inform decisions on targeting, sector priorities and operational challenges. To the extent that it is possible, indicators will be disaggregated by gender and the PCU will monitor the gender action plan (annex 6). The PCU will also apply the corporate scorecard methodology for the two indicators: (i) people receiving safely managed water services (number); and (ii) terrestrial and aquatic areas under enhanced conservation/management (hectares). In-depth evaluations will be conducted at the mid-term review and at the end of Project.

63. **The M&E function will monitor gender-related indicators.** This related to both those indicators in the results framework and those linked to individual components. For example, under the NEMA program (component 2.2), the human resources pillar will support professional development for women and the PCU will track progress in the number of women in engineering positions at SEG, the number of women in senior managerial roles at SEG, and the number of young people benefiting from professional opportunities in water institutions. Specifically, there will be an emphasis on ensuring that at least 40 percent of the young people benefiting from professional opportunities in the water and sanitation sector are women.

64. **Effective knowledge management is essential for the successful implementation and sustainability of development projects.** All relevant project documents, such as feasibility studies, environmental and social impact assessments, and stakeholder engagement plans, will be thoroughly documented and stored in accessible repositories. The PCU will play a pivotal role in fostering collaboration across project teams, departments, and stakeholders by organizing regular meetings, workshops, and knowledge-sharing platforms. The digitalization of SEG will also ensure that all key data for the utility will be captured and the PCU will establish a website to enhance the visibility of the project. Data analytics and visualization tools will be leveraged to track project performance, including progress on pipeline installation and NBS deployment.

## C. Disbursement Arrangements

65. **Two Designated Account (DA) will be opened, in US\$ at the Central Bank of Guinea (one for the PBC category and one for the other categories) and an operations account in GNF, in commercial banks under terms and conditions acceptable to IDA.** The ceiling of the DA will be stated in the DFIL. An initial advance not exceeding the DA ceiling will be made and subsequent disbursements will be made against submission of statements of expenditures (SOE) reporting on the use of the initial/previous advance. The option to disburse against submission of quarterly unaudited IFRs (also known as report-based disbursements) could be considered, as soon as the project meets the criteria. Other methods of disbursing the funds (reimbursement, direct payment, and special commitment) will also be available to the project. The minimum value of applications for these methods will be stated in the DFIL. The project will sign and submit Withdrawal

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<sup>28</sup> The Department of Public Investments (*Direction Nationale des Investissements Publics*, DNIP) under the MEF has developed a system of performance reviews of PIUs that implement IDA projects in Guinea.



Applications electronically using the eSignatures module accessible from the World Bank's Client Connection website. Funds will be disbursed in accordance with the project categories of expenditures and components, as shown in the Financing Agreement. Financing of each category of expenditure/component will be authorized as indicated in the Financing Agreement and will be inclusive of taxes according to the current country financing parameters (June 4, 2007) approved for the Republic of Guinea.

66. **As for the expenditures associated with the PBCs**, PBC 1.1 (US\$500,000 in total) will disburse against the expenditures under Component 2.3, including: the TA firm, equipment for the new company and consulting services. The annual report (PBC 1.2 or US\$500,000) will disburse against sub-component 4.1 on project management. PBC 2.1 disburses against Component 1.2, splitting the US\$8 million allocation for the PBC across two sets of civil works: 50 percent of the amount (US\$4 million) will be allocated to civil works for the distribution network in the Maneah sector and the other 50 percent of the amount (US\$4 million) will be allocated to civil works for the distribution network in the Kagbelen sector. PBC 3.1 (US\$1 million) disburses against equipment and technical assistance under Component 2.2 support to SEG's utility turnaround. PBC 3.2 (US\$4 million) disburses against project management costs under Component 4.1 including the operating cost for the PCU and support to technical agencies.

#### IV. PROJECT APPRAISAL SUMMARY

##### A. Technical, Economic and Financial Analysis

67. **The project will entail an additional extraction of water.** This will be approximately 200,000 m<sup>3</sup> per day, supplementing the current withdrawal of 135,000 m<sup>3</sup> per day of surface water from the Samou river sub-basin through the downstream "Grandes Chutes" dam. Detailed technical studies for the first phase of the 2040 Greater Conakry water master plan were developed under PUEG and informed the technical, economic and financial analysis done for PEAG.

68. **New infrastructure in the project complements existing infrastructure.** The upstream water infrastructure (Yessoulou IV, the transmission pipeline, distribution network and storage facilities in Kagbelen and Kouria) have been designed to facilitate interconnections with the existing Conakry water distribution network, which functions mainly by gravity leading to optimize energy costs. This represents the least-cost option for addressing water shortages in the short to medium-term in Greater Conakry areas.

69. **Assessment and reduction of climate mitigation risks.** The operation is aligned with the Paris Agreement goals regarding mitigation and adaptation. The Project does not present a material risk to Guinea's low-GHG emissions development pathways because all activities— water treatment, NRW reduction, gravity-fed distribution and watershed management—are on the Universally Aligned list and meet the list's eligibility criteria and conditions. More specifically, the Yessoulou IV plant will use a 1MW photovoltaic unit as the main power source, with connection to the grid (mostly hydropower) as a back-up.

70. **Assessment and reduction of climate adaptation risks.** While Greater Conakry is vulnerable to rising temperatures, changing rainfall patterns, and coastal floods, it is particularly vulnerable to wildfires. To reduce the exposure to these hazards, the Project's activities will ensure that the detailed designs of new and rehabilitated water infrastructure consider the current and expected climate change impacts, especially the high wildfire risk,<sup>29</sup> and implement

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<sup>29</sup> Bush fires are frequent around SEG installations and pipelines during the dry season. They are mainly caused by the presence of dry grass, dead leaves and needles, brush and small trees, agricultural activities, and the rising temperatures. Damage can not only result from flame and radiation



some NBS. The project will fund the preparation of investment packages – technical studies, procurement packages and environmental and social assessments – for Phase 2 of the Water Master Plan and Phase 1 of the Sanitation Master Plan and will integrate climate resilience considerations into the designs, such as the use of solar pumps in water production and distribution infrastructure. In all these ways, the risks associated with climate hazards will be reduced to acceptable levels, minimizing their potential impact on the Project's objectives.

*i) Drinking water*

71. **PEAG is expected that 2,612,467 people will benefit from water investments**, of which 572,200 newly connected people and 2,040,267 people already connected who will benefit from better water services thanks to these interventions.<sup>30</sup> Specific project benefits are described below.

- **Improved access to drinking water.** This will be achieved by constructing 28,120 new connections and 24 new standpipes to serve 2,612,467 people with a consumption set at 70 liters/person/day. These clients will increase SEG's revenue from drinking water. Water is valorized based on a unit revenue of GNF 306 per m<sup>3</sup>. The increased volume of water distributed will benefit former SEG clients (2,040,267 people) through an increase in their level of specific consumption from 40 liters/ person /day to 70 liters/ person/ day. This will not only generate additional water revenue for SEG but will also save costs to client households through water rationing, because currently households have to spend more on alternative water sources (pumping from private boreholes, bottles water, water from tanker trucks etc.) when SEG applies water rationing. Water is valorized based on a unit revenue of GNF 306 per m<sup>3</sup>.
- **Consumer surplus.** Regarding new connections, the economic analysis accounts for the consumer surplus resulting from the increase in water consumption and decrease in the water prices paid by beneficiaries who are switching to an improved source of supply. Consumer surplus is equal to the increase in water consumption multiplied by the difference in water price paid before and after the project and a price elasticity of 0.5.
- **Reduced physical losses in the network.** The rehabilitation of the distribution network that will be implemented as part of the project will reduce physical losses, which, in turn, will increase the amount of water billed and amount of revenue collected. The NRW rate is estimated at 49 percent in 2024, with a target of achieving 40 percent by project closure, of which the level of technical losses will drop from 41.7 percent currently to 21.3 percent in 2030 with the implementation of the project.

72. **Other economic benefits.** In addition to the benefits listed and quantified above, other benefits linked to water supply projects must also be considered. Such benefits fall in two categories: (i) benefits ensuing from improved hygiene and increased access to drinking water in newly connected households and households using collective supply points, leading to a reduction in water-borne diseases; (ii) time freed up for other activities for people previously in charge of fetching water, especially women and girls. In an assessment of the costs and benefits of water supply and sanitation at the global level that they conducted for the World Health Organization (WHO), Guy Hutton and Laurence Haller listed the most identifiable effects linked to these benefits, whether they were direct or indirect. The assessment findings are presented in the Master Plan's economic and financial analysis report and show that the biggest benefit relates to the time saved on fetching water, which is valorized at US\$12.3 per capita/year. The next biggest benefit comes through

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exposure but also from ember storms and low-level surface fires. In extreme fire weather events, strong winds and wind-borne debris may weaken the integrity of infrastructure.

<sup>30</sup> This number refers to the total beneficiaries from the combined financing of IDA, EIB, EU GEF and GoG.



savings on disease treatment costs thanks to illnesses avoided (US\$2.9 per capita/year) as well as through savings on the costs of deaths avoided (US\$2.9 per capita/year). Overall, these benefits amount to an average of US\$23.5 per capita/year.

**ii) Sanitation**

73. **Non-measurable benefits linked to sanitation.** The project will dedicate US\$10 million to building sanitation blocs in secondary schools and associated awareness campaigns on hygiene, plus US\$2 million to strengthen sanitation governance and service delivery arrangements. It would be difficult to identify and quantify the nature of the benefits at this stage of the project's intervention, but it can be anticipated that the benefits will be linked to better organization of the sub-sector, which will certainly contribute improve the income of sludge management actors. The WASH in schools component is expected to benefit 3,578 students. The economic benefits related to the sanitation component are of several kinds, first the construction of latrine blocks will induce a gain linked to the reduction of absenteeism at school, while particularly for girls who tend to stay home during menstruation if proper sanitary facilities do not often exist at school. In addition, the latrine blocks and hand washing facilities will help reduce the incidents of diarrheal diseases and related health expenditures. In addition, the project will contribute to a better organization of the sector by boosting the income of fecal sludge emptiers. Its advantages already appear in paragraph 70 but here we highlight the educational gain which is estimated at US\$0.50/person/year.

74. **The rate of return for Phase 1 of the Greater Conakry Water Master Plan) is very satisfactory.** Indeed, the Economic Internal Rate of Return (EIRR) is 26% with a Net Present Value (NPV) (at 10%) of US\$ 219.2 million and an NPV (at 6%) of nearly US\$ 459.1 million. These figures include the impact of the IDA funded activities as well as those of cofinanciers. These indicators demonstrate that the positive economic results generated by the project fully justify its implementation. The economic rate of return for the IDA financing is 16.8% with a Net Present Value (NPV) (at 6%) of US\$ 84.4 million, which is 18.4% of the NPV of tranche 1.

**Table 2. Project Cost-Benefits Analysis Summary**

PROJECT COST-BENEFITS ANALYSIS WITH ECONOMIC IMPACT OF GHG EMISSIONS			
<b>LOW ESTIMATION</b>			
	NPV@6%	US\$	95 365 333
	NPV@10%	US\$	32 298 934
	TRI		18.5%
<b>HIGH ESTIMATION</b>			
	NPV@6%	US\$	106 364 366
	NPV@10%	US\$	39 066 510
	TRI		20.3%

**Assessment of the impact of project activities on GHG emissions**

75. **An assessment of the impact of project activities on GHG emissions shows that Component 1 “Increase and improve water services in Greater Conakry” will contribute the most to reducing GHG emissions** with the construction of the new Yessoulou water treatment plant. Estimates of the impact of project activities on GHG emissions indicate that water services contribute a net impact of – 4,009 tCO2e/year and plastic water bottles contribute a net impact of – 8,770 tCO2e/year, for a total net reduction in GHG emissions of – 12,779 tCO2e/year for the entire project. These figures represent a net emissions reduction of 58 percent, mainly thanks to the construction of a new water treatment plant (to be powered by solar energy) and the reduction of physical NRW losses.



76. **When Shadow Prices of Carbon (lower and upper bounds) are taken into account** to assess the economic viability of the project, the EIRR increases from 16.8 percent to range between 18.5 percent and the NPV at a 6 percent discount rate increases from US\$ 84.4 million to US\$ 95.4 million for the lower estimate. For the higher estimate, the EIRR increases from 20.3 percent and the NPV at a 6 percent discount rate increases from US\$84.4 million to US\$95.4 million to US\$106.4 million (Table 3), indicating that the project is not only economically viable but also contributes to the global public good.

**Table 3: Economic profitability indicators of the project, including climate benefits**

PROJECT COST-BENEFITS ANALYSIS WITH ECONOMIC IMPACT OF GHG EMISSIONS			
<b>LOW ESTIMATION</b>			
	NPV@6%	US\$	95 365 333
	NPV@10%	US\$	32 298 934
	TRI		18.5%
<b>HIGH ESTIMATION</b>			
	NPV@6%	US\$	106 364 366
	NPV@10%	US\$	39 066 510
	TRI		20.3%

**Analysis of the project’s impact on gender and inclusion**

77. **The household chore of fetching water is a structural driver of the gender gap in unpaid tasks.** Women and girls spend 2.6h per week vs. less than an hour for men, with negative impact on education and livelihoods. Moreover, women-headed households are more prone to lack water access, which compounds poverty and vulnerability issues. To address these gaps, the project design has prioritized women’s access to clean water and sanitation services. It puts weight on areas where women and girls face the longest distances and highest time burdens for water collection. It will also focus social actions around the specific needs of women-headed households and vulnerable women and girls. Women will be involved in technical decisions about standpipe construction, with their specific concerns included in conception and site selection. PEAG will track progress in narrowing these gaps by monitoring time spent fetching water on average by women and girls. The project will regularly survey the project area and will use as a primary indicator the reduction in the average time women spend on water collection, aiming for a 50 percent reduction in targeted areas.

78. **A gender gap has been identified in the water and sanitation sector particularly in women’s access to technical and managerial jobs.** Namely, four women out of 22 represent only 18 percent of SEG management committee. In SEG workforce, women represent 17 percent of engineers (four out of 23) and 31 percent of managers (17 out of 55). In sanitation, DATU only counts three out of 22 civil servants (14 percent). Analysis showed that drivers of these gaps include: no comprehensive strategy covering hiring and training; perception and gender stereotypes; limited career prospects; uncomfortable working conditions for women at work e.g. inadequate toilets; and few women graduates in the field. The project plans to alleviate this gap by targeted actions, including: (i) developing an internship program to strengthen the pipeline of future water professionals; (ii) training workshops to equip women with the necessary skills for technical jobs; (iii) communication, including developing success stories to highlight the achievements of women in the sector and thus challenge societal stereotypes and inspire future generations; and (iv) awareness campaigns to highlight the benefits of gender equality in the water and sanitation sector and encourage women's participation. Additionally, WASH activities under the project will support adolescent girls’ education by providing clean and safe toilets with menstrual hygiene



facilities, reducing school absenteeism and improving overall well-being. Progress will be tracked through indicators for women employment in leading and technical roles (outside of the official results framework), including on the proportion of engineering positions filled by women at SEG and the share of young people benefiting from professional opportunities in water institutions.

**B. Financial analysis of the World Bank's intervention**

79. **The financial analysis is derived from the economic analysis but is restricted to the drinking water component** under which cash income can be collected by the facilities' operators. As such, the analysis does not consider any aspect relating to consumer surplus, alleviation of the water fetching workload, or impacts on health. However, it takes current prices into account, including VAT and all other financial levies. Lastly, the financial analysis considers SEG's billing and revenue collection performance.

80. **The findings of the financial analysis show that it is virtually impossible for SEG to achieve a return on the investments that become part of its assets under the project.** The financial internal rate of return (FIRR) is estimated at 0.8 percent. However, it should be noted that the World Bank's investments are the key link in the Greater Conakry Master Plan's first phase that are intended to establish a sustainable water service. Indeed, the water service would achieve financial profitability once the first phase is completed.

**B. Fiduciary**

**(i) Financial Management (FM)**

81. **MEHH will have the overall fiduciary responsibility for the project, supported by the PCU.** The overall conclusion of the FM assessment is that the project's FM mechanisms are not in place. The MEHH is not familiar with the World Bank's financial management rules and procedures. The PCU-PEAG, which is not yet operational, does not have staff or management tools. Consequently, the initial risk rating of the project is high. However, after implementing the following mitigation measures, the FM and disbursement arrangements are expected to be acceptable, and the FM residual risk is rated as substantial. Specific FM risks to the project, associated mitigation measures and residual risk are presented in annex 3 (Details of the financial management assessment).

**Table 4. Overview of the Financial Management Action Plan**

Topic	Remedial Action Recommended	Responsible Entity	Completion date	FM Condition
<b>Staffing</b>	Recruit a financial management specialist using an internationally open selection method and based on Terms of Reference (TOR) agreed with the World Bank.	PCU-PEAG	One month after project effectiveness	Yes
	Recruit an accountant and an accountant assistant based on TOR agreed with the World Bank		By effectiveness	No
<b>Internal control/procedures manual</b>	Finalize and have the manual of administrative, accounting, and financial procedures validated by the World Bank	PCU-PEAG		Yes
<b>Information system accounting software</b>	Purchase and configure the Tompro multi-project management software	PCU-PEAG	Draft before Board	No



Topic	Remedial Action Recommended	Responsible Entity	Completion date	FM Condition
Internal auditing	Recruit an internal auditor using an internationally open selection method on the basis of terms of reference agreed with the World Bank	PCU-PEAG	By effectiveness	No
External auditing	Recruit the external auditor and sign the contract on terms of reference acceptable to the World Bank and the BEI	PCU-PEAG	Five months after the project effectiveness	No

82. **The West African Francophone countries accounting standards (SYSCOHADA) for non-profit entities which come into force on January 1, 2024, will apply.** The PCU will be required to prepare and submit: (a) an initial Work Plan and Budget (WPB) by project effectiveness and thereafter an Annual Work Plan and Budget (AWPB) not later than November 30 of each year; (b) interim un-audited financial statements (IFR) on a quarter basis 45 days after the end of each quarter; and (c) audited annual financial statements within 6 months following the end of the period audited.

**(ii) Procurement**

83. **Procurement rules and Procedures.** The Recipient will carry out procurement for the proposed project in accordance with the World Bank’s “Procurement Regulations for Investment Project Financing (IPF) Borrowers” dated February 2025 under the “New Procurement Framework” (NPF), and the “Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants”, dated July 1, 2016, and other provisions stipulated in the Financing Agreements. The Recipient shall use the World Bank’s online procurement planning and tracking tools (STEP) to prepare, clear and update its Procurement Plans and conduct all procurement transactions.

84. **The major planned procurement under this Project will include :** (i) construction of a water treatment plant with a capacity of 200,000 m3 at the Yessoulou complex; (ii) construction of two reservoirs (7,500 m3 in Kagbelen and 500 m3 in Kouria); (iii) extensions of networks, connections, and standpipes (Manéah and Kagbelen); (iv) materials and equipment (vehicles, office furniture, computer equipment); (v) Technical Assistance Missions. The Project Procurement Strategy for Development (PPSD), and Procurement Plan for the first 18 months were developed and cleared by the World Bank during project preparation.

85. **Procurement capacity and risk assessment.** Procurement capacity and risk assessment have been carried out by the World Bank in October 2024. The key risks for procurement under the project are as follows: (i) envisaged institutional arrangement provides for the MEHH to be responsible for the implementation of the project. Experience with this Ministry has demonstrated performance problems on previous projects financed by the World Bank in terms of procurement and management of the complex contracts for which it is responsible; (ii) inferences at the level of procurement, from the executives of the MEHH’s Public Procurement Unit. These actions have the consequence of lengthening the deadlines for the award of contracts, affect governance in the field (complaints), and the quality of the documents submitted to the World Bank for approval; (iii) importance of the project and the complexity of the activities to be implemented compared to the low capacity for procurement at the supervisory level (MEHH); and (iv) the fact that the project will have to interact with various partners who will be involved in the procurement and contract management processes, including: (i) MEHH (Guinea Water Company, National Directorate of Hydraulics, Regulatory Authority of Public Electricity and Water Services); (ii) Ministry of Urban Planning, Housing and Regional Planning (National Directorate of Spatial Planning and Urban Planning; (iii) Ministry of Environment and Sustainable Development (National Directorate of the Environment); and (iv) Ministry of Economy and Finance. Based on the World Bank’s assessment the overall procurement risk is rated **High**.



86. **The mitigation measures include:** (i) establishment of an efficient organization with qualified personnel (Implementation Agency); (ii) recruit a team of qualified procurement specialists who are proficient in the World Bank's procedures (including an International Expert and a National Procurement Specialist); (iii) development of a manual of procedures clearly describing the roles and responsibilities of the various actors in procurement (section on procurement); (iv) the use of hands-on expanded implementation support (HEIS), which the Government requested and the World Bank approved during preparation. The HEIS consultant was brought on board during preparation and will continue to support the Borrower during implementation; (v) training of actors involved in the implementation of the project on the World Bank Procurement Regulations; and (vi) prioritization of the strategic activities of the project to impact the disbursement rate and quickly achieve development objectives. The World Bank's oversight of procurement will be done through close implementation and capacity-building support to the implementing agency staff to mitigate the risks. The World Bank's standard prior and post review arrangements apply as specified in the procurement plan.

### C. Environmental, Social and Legal Operational Policies

87. **The Project will bring about positive economic, environmental and social impacts** as the proposed activities will increase access to sustainable water services and sanitation in Greater Conakry. However, the implementation of the project will also cause temporary and localized negative environmental and social impacts in the project area. The prominent impacts include: water and soil contamination, waste generation, disruptions of natural habitats, occupational health and safety concerns, community health and safety, labor standards violations, physical and economic displacement.

88. **The project is prepared in compliance with the ESF and the relevant standards (ESS1 - 6, 8 and 10).** The Client has prepared various environmental and social (E&S) instruments. In addition to project level documents (Environmental and Social Commitment Plan (ESCP), Stakeholder Engagement Plan (SEP), Labor Management Plan (LMP), the Client has also prepared an Environmental and Social Impact Assessment (ESIA) for Yessoulou IV water treatment plant, and an ESIA and a Resettlement Action Plan for Sub-Component 1.2 (Storage tanks and distribution system). IDA to finance the implementation of the RAPs for IDA and EIB/EU investments under the Project During the project preparation, various consultation rounds were conducted with stakeholders in Conakry (06/2021, 12/2023, April-August 2024) and in Kindia, Kouria, Coyah, Maneah and Kagbelen (July 2024). The client will also prepare E&S instruments for WASH activities under sub-component 2.4; one ESIA for dam safety works for Samou, Baneah and Grandes Chutes in the prefecture of Kindia; E&S instruments (ESIA, RAP) for EIB/EU funded portion; and a process framework to guide the implementation of Component 3. The World Bank will also work with the Government of Guinea (GoG) to ensure the compliance with ESF requirements in the raw water component (associated activities) financed by Exim Bank of India. All E&S instruments will be reviewed, cleared and disclosed per the World Bank's requirements before Board approval. All technical assistance activities under PEAG will be managed in accordance with the World Bank ESF and OESRC's Advisory Note for Technical Assistance.

89. **Citizen Engagement:** The project seeks to support the engagement of targeted beneficiaries and other stakeholders through consultative processes and feedback mechanisms, which will help identify and integrate corrective measures, when necessary, into project interventions. Periodic consultations are an integral part of the feedback process as well as annual satisfaction surveys. Additionally, the project will integrate a community monitoring mechanism that will facilitate beneficiaries monitoring and feedback.



Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Area OP 7.60	No

**Grievance Redress Services:**

90. **Grievance Redress.** Communities and individuals who believe that they are adversely affected by a project supported by the World Bank may submit complaints to existing project-level grievance mechanisms or the World Bank’s Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the World Bank’s independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred, or could occur, as a result of World Bank non-compliance with its policies and procedures, and the Dispute Resolution Service, which provides communities and borrowers with the opportunity to address complaints through dispute resolution. Complaints may be submitted to the AM at any time after concerns have been brought directly to the attention of World Bank Management and after Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank’s Grievance Redress Service (GRS), visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank’s Accountability Mechanism, visit <https://accountability.worldbank.org>.

**V. KEY RISKS**

91. **The political and governance risk is rated high.** Guinea currently has a transitional government, run by the National Committee for Reconciliation and Development (CNRD), but it is unclear when elections may take place and a return to civilian rule assured. In the meantime, the project will manage the risks of continued political and governance instability by strengthening policy dialogue under the leadership of the World Bank’s Country Management Unit (CMU) based in Conakry. The pipeline DPF with prior actions for the water sector could also help mitigate risks that politically sensitive decisions, such as raising water tariffs, are managed under the umbrella of budget support.

92. **The macroeconomic risk is rated substantial.** While the macroeconomic framework is largely adequate, the macroeconomic risk is rated substantial because of (i) incomplete information on the potential revenue envelope from Simandou iron operations (to launch in 2026), (ii) challenges to revenue mobilization from mining companies and other large multinational enterprises, (iii) challenges managing expenditures and domestic debt, and (iv) exposure to volatility in international commodity markets. The Government is adopting measures to mitigate those risks, including those supported by this DPF operation, engagement with the IMF and support from other development partners.

93. **Sector strategies and policies are rated substantial.** As the current government is a transition one, there is a risk of potential change in Government policy for the water and sanitation sector during the lifetime of the project. The risk is mitigated by the careful selection of sector reforms in PEAG, which are based on strong analytics. The World Bank, through the recently closed Urban Water Project, has funded strategic sector studies, such as a water policy letter, a tariff study and a financial model, that have helped clarify needed reforms and policy measures. The project will include funding and institutional measures – such as strengthening the regulator AREE to ensure technical soundness and oversight of sector



strategies – to keep the momentum on the implementation of water strategies and policies regardless of political arrangements. Lastly, constant dialogue with the authorities will help address any departure from current sector strategies.

94. **The technical design of project is rated moderate.** The project will use standard water investments in the infrastructure designs, and this is not expected to carry much risk. Technical designs (feasibility studies and bidding documents) have already been developed under SEG’s authority and reviewed by the World Bank, which will mitigate the risk of implementation delays. Institutional strengthening activities – such as the WRM component, the regulation component and the sanitation reforms component - will benefit from technical assistance (TA) firms that will ensure sound design of all the respective thematic areas.

95. **The institutional capacity for implementation and sustainability risk is rated substantial.** The project has recommended alternative institutional arrangements for the new water and sanitation project. These arrangements include sharing project implementation responsibilities between the water utility, SEG, and a PCU within the line ministry, MEHH. Sharing implementation across various entities can raise the risk of tensions or confusion about roles and responsibilities; or weaken accountability if there is insufficient ownership at the Government level. To mitigate this risk, a project manual will be developed latest by a month after project effectiveness and will clearly indicate roles and responsibilities for the implementing entities under the project. In addition, the Steering Committee will meet regularly to ensure adequate collaboration across the project entities. As for the capacity risk, a Project Management firm will be hired to provide project support (procurement, FM, environmental, social, M&E etc) to SEG and the PCU, while also promoting knowledge sharing and capacity building.

96. **The fiduciary risk is rated high.** The procurement risk is rated high, due to the track record and unfamiliarity with the World Bank’s procurement procedures and the issues related to delays in procurement processes. Financial management also has high risk due to the lack of strong capacity in the MEHH on Bank rules and procedures. As a mitigation measure, HEIS for procurement will be provided to the implementing authorities. In addition, the project management consulting firm will also include fiduciary specialists to support the work of the Financial Management Specialist in the PCU. The World Bank staff will ensure regular supervision and oversight of all fiduciary issues. Annual and on-demand audits will be undertaken by an external auditing firm with the World Bank overseeing the work of the firm to ensure rigor and compliance with World Bank fiduciary rules. Annex 3 describes the financial management risks in more detail.

97. **The aggregate environmental and social risks are rated High.** The project’s environmental risks are rated High. Most of the environmental risks are related to the Yessoulou IV treatment station, particularly in terms of the treated water not meeting water quality standards. There are also risks related to air, water and soil pollution during the civil works. The project’s social risks are rated Substantial (mainly related to labor standards violations, resettlement, occupational health and safety, and community health). While the magnitude of these impacts ranges from moderate to substantial, limited implementation capacity and policy gaps may hinder compliance with World Bank policies and ultimately project development objectives. These risks and impacts should be adequately managed through ESF application of mitigation measures to be provided by comprehensive instruments to be prepared and close monitoring of the work.

98. **The stakeholder risk is rated substantial:** A Steering Committee will be established, comprised of all the key stakeholders of the project, and will be tasked with developing the project of work and budget every year. This will ensure that all stakeholders are aware of the project’s activities and can advise on, and contribute to, resolving any issues that arise during project implementation. While there is a risk that the pre-paid meters may be sabotaged or rejected, as has



been the case in Guinea for electricity meters, the awareness campaigns run by SEG and careful selection of the pilot customers will help mitigate this risk.

99. **Urban and coastal flooding are medium to high risks** in the coastal region of the Conakry and Kindia Regions, as well as extreme heat and wildfires. Water security in the context of this project is understood as the long-term availability of freshwater resources and the ability to provide safe drinking water supply to more people. The outcome of the LDCF-funded component is to secure water resources, whereas the outcome of IDA-funded components is to assist in the distribution of water to users. As such, water security may be at risk long terms, as confirmed by a Climate and Disaster Risk screening assessment done during project preparation. In addition, during the preparation phase, environmental and social assessments will be conducted with the implementing agencies to verify their capacity to integrate climate mitigation and adaptation measures and capacity reinforcement measures will be put in place as needed.

100. **Risk of delays in the implementation of parallel financing and cofinancing:** The investments to be financed by the World Bank depend on the timely and successful implementation of the rest of the infrastructure under the Greater Conakry Water Program. If the raw water component financed by Exim Bank India is delayed, there will not be enough water to supply the Yessoulou treatment plant. Similarly, the dam hydromechanical upgrades to be financed by EIB are essential to secure the water supply from the Grandes Chutes dam. Moreover, the World Bank will finance the Yessoulou IV plant at full capacity, but to make this investment efficacious, the downstream investments in the distribution network, financed by EIB-EU are essential. To mitigate the risks, there will be joint implementation of the EIB and IDA components under the same Steering Committee, PCU and SEG unit. Implementation support missions will involve both EIB and World Bank task teams and this will help leverage both institutions' respective strengths. Another risk mitigation measure will be the staggered timeline for the implementation of civil works. For example, the raw water intake is expected to begin in July 2025 and the downstream investments (Yessoulou and the distribution network) can begin in parallel. All works will be completed before the PEAG closing date.<sup>31</sup> Connected to this, the GoG has agreed to fund the compensation related to the Exim Bank of India.

101. **The overall project risk is assessed as High.** Given the various risks and mitigation actions outlined above, the project has an overall "high" risk rating. Individual overall risks will continue to be monitored regularly and will be revised as needed over the course of the project.

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<sup>31</sup> Estimated duration of works as defined in the feasibility studies: 1) water intake: 4 months, 2) raw water pipe: 46 months, 3) treated water pipe: 38 months, 4) distribution networks: 44 months.



**ANNEX 1. RESULTS FRAMEWORK**

**PDO Indicators by PDO Outcomes**

Baseline	Period 1	Period 2	Period 3	Closing Period
<b>Increase access to water supply services in Greater Conakry</b>				
<b>People with access to enhanced water services under the project (Number)</b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
0	0	0	50,000	2,040,267
<b>People provided with safely managed water (Number of people) <sup>CR1</sup></b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
0	0	0	100,000	572,000
<b>&gt; People provided with safely managed water - Female (Number of people) <sup>CR1</sup></b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
0	0	0	20,000	114,400
<b>&gt; People provided with safely managed water - Youth (Number of people) <sup>CR1</sup></b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
0	0	0	40,000	228,800
<b>Reduction of Non-Revenue Water (NRW) through a performance based contract (Percentage)</b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
49	49	49	49	40
<b>Average time spent by women and girls collecting water in a typical month (Hours)</b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
12	12	12	9	6
<b>Strengthen the operational and organizational performance of water and sanitation inst</b>				
<b>Adoption of the State-SEG Concession and a new program contract (Yes/No) <sup>PBC</sup></b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
No	Yes	Yes	Yes	Yes
<b>Establishment of a national sanitation company and the adoption of its first contract-program with the government (Yes/No) <sup>PBC</sup></b>				



Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
No	No	No	Yes	Yes

### Intermediate Indicators by Components

Baseline	Period 1	Period 2	Period 3	Closing Period
<b>Component 1: Increasing and improving water services in Greater Conakry</b>				
<b>Drinking water production capacity generated in the Greater Conakry area (Cubic Meter(m3))</b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
0	0	0	200,000	200,000
<b>New domestic water connections in the Grand Conakry area (Number)</b>				
Sep/2024	May/2027	May/2028	May/2029	Sep/2031
0	0	0	500	28,120
<b>SEG customers equipped with a working meter based on actual consumption (Percentage)</b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
77	80	83	85	90
<b>Length of the water distribution network serving the Grand Conakry area (Kilometers)</b>				
Sep/2024	May/2027	May/2028	May/2029	Sep/2031
0	40	160	320	404
<b>Water infrastructure that is designed and located based on user feedback (Number)</b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
0	0	0	20	49
<b>Proportion of energy used at Yessoulou IV that is based on renewable energy sources (Percentage)</b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
0	0	0	40	40
<b>Component 2. Support to Water Sector Performance, and Institutional and Policy Reforms</b>				
<b>Adoption and implementation of the new tariff policy for drinking water for urban areas covered by SEG (Yes/No) <sup>PBC</sup></b>				
Sep/2024	Jun/2027	Jun/2028	May/2029	Sep/2031
No	Yes	Yes	Yes	Yes
<b>Revenues derived from digital platforms (Percentage)</b>				
Sep/2024	Jun/2027	Jun/2028	May/2029	Sep/2031
25	30	35	40	50
<b>Students provided with access to improved sanitation facilities in schools under the project (Number)</b>				
Oct/2024	Jun/2027	Jun/2028	May/2029	Sep/2031



0	0	1,710	3,000	3,578
➤Female students provided with access to improved sanitation facilities in schools under the project (Number)				
Oct/2024	Jun/2027	Jun/2028	May/2029	Sep/2031
0	0	428	1,200	1,400
<b>Schools provided with access to improved sanitation facilities (Number)</b>				
Oct/2024	Jun/2027	Jun/2028	May/2029	Sep/2031
0	10	30	80	100
<b>Number of approved emptiers with operating licenses (Number)</b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
0	0	0	20	30
<b>Creation of a New National Sanitation Agency (Yes/No)</b>				
Sep/2024	May/2027	May/2028	May/2029	Sep/2031
No	Yes	Yes	Yes	Yes
<b>Component 3. Enhancing Water Resources Management in Selected Areas</b>				
<b>Areas of degraded forests that have been restored or rehabilitated (Hectare(Ha))</b>				
Oct/2024				Sep/2031
0				200
<b>Protection perimeters that have been established (Number)</b>				
Oct/2024				Sep/2031
0				6
<b>Terrestrial and aquatic areas under enhanced conservation/management (Hectare(Ha))</b>				
Oct/2024				Sep/2031
0				2,000
<b>Terrestrial and aquatic areas under enhanced conservation/management (Hectare(Ha))</b>				
Oct/2024				Sep/2031
0				2,000
<b>Component 4. Project Implementation Support</b>				
<b>Young people benefitting from professional opportunities in water institutions (Number)</b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Sep/2031
0	0	30	45	50
<b>Water and sanitation officials benefitting from certified project management training (Number)</b>				
Oct/2024	Jun/2027	Jun/2028	Jun/2029	Apr/2031
0	40	100	180	280
<b>Component 5: Contingent Emergency Response Component (CERC)</b>				



**Performance-based Conditions (PBC)**

Period	Period Definition
Period 1	2026
Period 2	2027
Period 3	2028
Period 4	2029
Period 5	2030
Period 6	2031

Baseline	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
<b>1:Establishment of a national sanitation company and the adoption of its first contract-program with the government (Yes/No )</b>						
No	NA	Adoption of the legal decrees or law establishing the new sanitation company in Guinea as well as the new programme contract between the Government and the sanitation company.	N/A	N/A	First annual report of the activities of the sanitation company approved and published	
0.00	0.00	500,000.00	0.00	0.00	500,000.00	
PBC allocation		1,000,000.00		As a % of Total PBC Allocation		7.14%
<b>2:Adoption and implementation of the new tariff policy for drinking water for urban areas covered by SEG (Yes/No )</b>						
No	N/A	Yes	N/A	N/A	N/A	N/A
0.00	0.00	8,000,000.00	0.00	0.00	0.00	0.00
PBC allocation		8,000,000.00		As a % of Total PBC Allocation		57.14%
<b>3:Adoption of the State-SEG Concession and a new program contract (Yes/No )</b>						
No	Adoption of the State-SEG concession agreement and its appendices	N/A	N/A	Regulator's report on the results of the State-SEG program contract and publication of SEG's	N/A	N/A



				audited financial statements over the period of the program contract		
0.00	1,000,000.00	0.00	0.00	4,000,000.00	0.00	0.00
PBC allocation		5,000,000.00		As a % of Total PBC Allocation		35.71%



**Monitoring & Evaluation Plan: PDO Indicators by PDO Outcomes**

<b>Increase access to water supply services in Greater Conakry</b>	
<b>People with access to enhanced water services under the project (Number)</b>	
Description	This indicator measures the cumulative number of people in households already connected to the urban water supply network of Conakry benefiting from increased water supply or increased water pressure from the new production facilities constructed under the Project. Number = Daily production of new facilities (m3/day) x 1,000 x 0.7 (network efficiency) / (1.3 (peak factor) x 70 lpcd (average daily consumption per capita)).
Frequency	Annual
Data source	Contractor reports; reports from the supervision firm; field reports from the SEG execution unit.
Methodology for Data Collection	SEG will collect data from local contractors and its supervision firm on the number of water infrastructure completed and household connections provided under the project. It will transmit this data to the PCU for quality control, documentation and reporting.
Responsibility for Data Collection	PCU
<b>People provided with safely managed water (Number of people) <sup>CRI</sup></b>	
Description	This indicator measures the cumulative number of people in Greater Conakry areas who benefited from “safely managed drinking water services” constructed under the Project. “Safely managed drinking water services” means water facilities that deliver improved water source, on premises, available and safe from contamination”. The definition of what is considered an “safe water source” follows the guidelines set by the World Health Organization (WHO). Number = Number of household social connections x [20 people]
Frequency	Annual
Data source	Contractor reports; reports from the supervision firm; field reports from the SEG execution unit.
Methodology for Data Collection	SEG will collect data from local contractors and its supervision firm on the number of water infrastructure completed and household connections provided under the project. It will transmit this data to the PCU for quality control, documentation and reporting.
Responsibility for Data Collection	PCU
<b>●People provided with safely managed water - Female (Number of people) <sup>CRI</sup></b>	
Description	Same definition than the Core Results Indicator above but disaggregated for female by using the ratio of 51.7percent extracted from the available Country Census Report (RGPH-2014). Number = Number of household social connections x [20 people] x 0.517
Frequency	Annual
Data source	Contractor reports; reports from the supervision firm; field reports from the SEG execution unit.
Methodology for Data Collection	SEG will collect data from local contractors and its supervision firm on the number of water infrastructure completed and household connections provided under the project. It will transmit this data to the PCU for quality control, documentation and reporting.
Responsibility for Data Collection	PCU
<b>●People provided with safely managed water - Youth (Number of people) <sup>CRI</sup></b>	
Description	Same definition than the Core Results Indicator above but disaggregated for youth by using the ratio of 75percent extracted from the available Country Census Report (RGPH-2014). Number = Number of household social connections x [20 people] x 0.75
Frequency	Annual
Data source	Contractor reports; reports from the supervision firm; field reports from the SEG execution unit.
Methodology for Data Collection	SEG will collect data from local contractors and its supervision firm on the number of water infrastructure completed and household connections provided under the project. It will transmit this data to the PCU for quality control, documentation and reporting.



Collection	reporting.
Responsibility for Data Collection	PCU
<b>Reduction of Non-Revenue Water (NRW) through a performance based contract (percent) <sup>PCM/PCE</sup></b>	
Description	This indicator measures the impact of private sector participation through Performance-Based Contracts (PBC) on reducing Non-Revenue Water (NRW) in the water distribution network. The aim is to track the progress of private companies in reducing water losses due to leaks, theft, and meter inaccuracies under the terms of their contracts. Indicator: Percentage reduction in NRW (percent)
Frequency	Annual
Data source	Reports from private contractors, water utility data, and audit reports from the PCU.
Methodology for Data Collection	The water utility and private sector partners will collect and report data on NRW reduction. Flow meters and water balance audits will be used to assess water losses before and after PBC implementation.
Responsibility for Data Collection	PCU
<b>Average time spent by women and girls collecting water in a typical month (Hours)</b>	
Description	This indicator measures the average time spent monthly by women/girls collecting water in the project area. Number = Number of hours spent for water collection.
Frequency	Three (3) times during the project implementation (start, middle, end).
Data source	Evaluation reports delivered by a specialized firm recruited by the PCU to conduct the review in the project area.
Methodology for Data Collection	The consultant firm will conduct quantitative and qualitative surveys through samplings and questionnaires in the project area. The data collected will be analyzed and consolidated into results for documenting the average time spent for water collection in the project area during different phases of the project implementation.
Responsibility for Data Collection	PCU
<b>Strengthen the operational and organizational performance of water and sanitation institutions in Guinea.</b>	
<b>Adoption of the State-SEG Concession and a new program contract <sup>PBC</sup></b>	
Description	This indicator will be monitored through PBC's actions under the Project linked to two disbursement conditions under the project, with a total financial impact of \$5 million on Sub-component 1.3 (\$32 million), which includes civil works for water distribution network pipelines and household connections. SEG's transformation will involve a legal restructuring of its mandate and organizational structure. The new status of SEG must be formally adopted by the government through a legal decree or law, to be published in the official gazette. Indicator = Yes / No, depending on the completion of the milestone. PBC 3.1 (\$1 million) disburses against equipment and technical assistance under Component 2.2 support to SEG's utility turnaround. PBC 3.2 (\$4 million) disburses against project management costs under Component 4.1 including the operating cost for the PCU and support to technical agencies.
Frequency	Annual
Data source	<u>PBC3.1</u> : Adoption of the State-SEG concession agreement and its appendices (\$1 million). First, MEHH will provide evidence on the development, approval and signature of the State-SEG concession -contract to PCU, the World Bank and the IVA. <u>PBC 3.2</u> : Report on the results of the State-SEG concession agreement developed and validated by the sector regulator (\$4 million). This indicator will measure the effectiveness of the concession agreement, and whether the baseline indicators have been met. The water regulator, AREE, will be tasked with monitoring the effectiveness of the agreement and will review and validate the report on the performance of both SEG and the Government. MEHH will submit the annual results of the State-SEG concession agreement to PCU, the World Bank and the IVA.
Methodology for Data Collection	PCU will collect outputs related to the State-SEG Concession Agreement development, approval and signature ; and subsequently the annual results indicators of the Concession Agreement monitored by the regulator (AREE).
Responsibility	PCU



for Data Collection	
<b>Establishment of a national sanitation company and the adoption of its first contract-program with the government (Yes/No) <sup>PBC</sup></b>	
Description	<p>This indicator will be monitored through PBC’s actions under the Project linked to three disbursement conditions with a total financial impact of \$2.5 million on Sub-component 2.3 (\$2 million) – support for sanitation sector reforms and on Sub-component 4.1 (\$0.5 million) – project management to ensure that there is an incentive for the project implementing agencies as a whole to support the sanitation reform.</p> <p>So, the project will support strengthening sanitation governance and service delivery modalities, including the set up of a more appropriate institutional framework, the creation of a national urban sanitation company to supervise and monitor interventions in the network and non-network sanitation infrastructure. The PBC is included in the project to incentivize the needed sanitation reforms.</p> <p>The Government through MUHAT, will supervise the institutional study to develop a roadmap for the creation and operationalization of the sanitation company. The study will include the drafts for the operationalization of the new company as well as the founding documents (charters, internal policies and so forth).</p> <p>Indicator = Yes / No, depending on the completion of the milestone.</p>
Frequency	Annual
Data source	<p><u>PBC 1.1</u> : Adoption of the legal decrees establishing the new sanitation company in Guinea (\$0.5 million). First, MUHAT will provide evidence on the development, approval and signature of the legal statements governing the urban sanitation sub-sector to PCU, the World Bank and the IVA.</p> <p><u>PBC 1.2</u> : First annual report of the activities of the sanitation company approved and published (\$0.5 million). To ensure that the new company is operating as it should, this PBC indicator requires the publication of an annual report on the first year’s activities of the company. The report template will be developed by the technical assistance firm that will accompany the authorities to establish and operationalize the new entity.</p> <p>MUHAT will provide evidence on the contract program reporting and results approval by Government to PCU, the World Bank and the IVA.</p>
Methodology for Data Collection	PCU will collect outputs related to the State-ONAG Concession Contract development, approval and signature ; and subsequently the annual results indicators approval.
Responsibility for Data Collection	PCU
<b>Improve water resource management in selected areas</b>	
<b>Area benefiting from improved conservation and water management techniques in the upstream of the watershed (Hectare(Ha))</b>	
Description	<p>Through component 3, the project will support the implementation of nature-based solutions (NBS) in collaboration with the Guinean National Parks Office (OGPNRF), in response to the ecological and hydrological challenges upstream of the Baneah and Grandes Chutes dams and water intakes, to halt land degradation and sedimentation in the water reservoirs. These solutions can be implemented through techniques such as terraces and slopes, active reforestation efforts, and landslide control measures.</p> <p>The indicator is the surface of the area where NBS solutions are applied in the Greater Conakry Samou sub-basin. Number = Number of Hectares of the Samou sub-basin benefitting of applied nature-based solutions conservation.</p>
Frequency	Annual
Data source	Progress reports by the supervision firm/OGPNRF and those established by the PCU.
Methodology for Data Collection	OGPNRF will collect data from local contractors and its supervision firm on the progress of NBS construction in the Greater Conakry Samou sub-basin. It will transmit this data to the PCU for quality control, documentation and reporting.
Responsibility for Data Collection	OGPNRF and PCU

**Monitoring & Evaluation Plan: Intermediate Results Indicators by Components**



<b>COMPONENT 1: Increasing and improving water services in Greater Conakry</b>	
<b>Drinking water production capacity generated in the Greater Conakry area (Cubic Meter(m3))</b>	
Description	This indicator measures the production capacity of the Yessoulou IV water treatment station to be constructed under the project. This is a greenfield facility that will serve the Greater Conakry area with clean drinking water.
Frequency	Annual
Data source	Progress reports by the supervision firm/ SEG and those established by the PCU.
Methodology for Data Collection	SEG will collect data from the local contractor and its supervision firm on the progress in the construction of the Yessoulou IV water treatment plant. It will transmit this data to the PCU for quality control, documentation and reporting.
Responsibility for Data Collection	PCU and SEG
<b>New domestic water connections in the Grand Conakry area (Number)</b>	
Description	This indicator measures the number of water connections built under the Project to supply households in the areas of Kouria, Maneah and Kagbelene. Number = Number of water household connections constructed and used.
Frequency	Annual
Data source	Progress reports by the supervision firm/ SEG and those established by the PCU.
Methodology for Data Collection	SEG will collect data from the local contractors and its supervision firm on the works progress of the water social connections implementation. It will transmit this data to the PCU for quality control, documentation and reporting.
Responsibility for Data Collection	PCU and SEG
<b>SEG customers equipped with a working meter based on actual consumption (Percentage)</b>	
Description	This indicator measures the percentage of SEG customers whose billing is based on the volume of water actually consumed and whose consumption is measured by a properly functioning meter (rather than a flat-rate basis as is the baseline situation).
Frequency	Annual
Data source	Billing records from SEG and customer service reports.
Methodology for Data Collection	SEG will analyze billing records to identify customers with functioning meters and calculate the percentage of total customers that this represents. Data will be verified through random checks and audits of customer meters.
Responsibility for Data Collection	PCU and SEG
<b>Length of the water distribution network serving the Grand Conakry area (Kilometers)</b>	
Description	This indicator measures the water distribution pipes laid under the Project to supply the areas of Kouria, Maneah and Kagbelene for a length of 118 km. Number = Km of pipes laid and connected to Conakry water distribution network.
Frequency	Annual
Data source	Progress reports by the supervision firm/ SEG and those established by the PCU.
Methodology for Data Collection	SEG will collect data from the local contractors and its supervision firm on the works progress of the distribution network expansion. It will transmit this data to the PCU for quality control, documentation and reporting.
Responsibility for Data Collection	PCU and SEG
<b>Water infrastructure that is designed and located based on user feedback (Number)</b>	
Description	This indicator measures the number of water standposts ("bornes fontaines" in French) that are constructed under the project and that have benefited from user feedback. The exact location of the water standposts is not yet known, which offers an opportunity for SEG to identify the location of the standposts based on demand from local authorities and the local population in the project area.
Frequency	Annual
Data source	Reports from local authorities, community feedback surveys, and progress reports from SEG.
Methodology for Data Collection	SEG will gather user feedback through community meetings and surveys to determine the preferred locations for the standposts. This information will be documented and used to inform the construction process. The number of standposts



	constructed based on this feedback will be tracked and reported.
Responsibility for Data Collection	PCU and SEG
<b>Proportion of energy used at Yessoulou IV that is based on renewable energy sources (Percentage)</b>	
Description	This indicator measures to what extent the new water treatment station, Yessoulou IV, is operated using renewable energy sources. A 1MW photovoltaic production unit will be built to provide Yessoulou IV with its energy source for operations, with the expectation that it will provide 100percent of the station's energy supply on an annual basis.
Frequency	Annual
Data source	Operational performance reports from SEG and technical performance assessments by the supervision firm.
Methodology for Data Collection	SEG, in coordination with the supervision firm, will monitor the energy use of the Yessoulou plant, which will use the photovoltaic plant and the electricity network (at night) for its energy sources.
Responsibility for Data Collection	PCU and SEG
<b>Component 2. Support to Water and Sanitation Institutional and Policy Reforms</b>	
<b>Adoption and implementation of the new tariff policy for drinking water for urban areas covered by SEG (Yes/No) <sup>PBC</sup></b>	
Description	As per the tariff study recommendations delivered in 2023 under the PUEG project, the Government is committed to adopt and implement a new tariff policy in the urban water sector to enable SEG met its financial equilibrium throughout the PEAG project implementation. The process will be articulated around three (3) miletones : i) By 2024, adoption of the new tariff policy framework, publication of the decree adjusting the water tariffs, and SEG's communication to that effect to its customers ; ii) By 2026, adjustment of the water tariffs as per the tariff methodology and the updated financial model results validated by the regulator (AREE), and publication of the decree ; iii) By 2028, or after during the project lifetime, adjustment of the water tariffs as per the methodology above to strengthen the virtuous cycle ensuring that SEG operating costs are covered, and also publication of the decree. This indicator is also PBC 2, which covers the the revision of the tariffs as per the new tariff methodology (Step iii) outlined above. An amount of US\$8 million is allocated for PBC 2. Indicator = Yes / No, depending on the completion of the milestone.
Frequency	Every 2 years
Data source	SEG's approved annual financial statements and updated financial model results validated by the regulator (AREE)
Methodology for Data Collection	AREE will supervise the process of collecting the core data for tariff adjustment with SEG and PCU
Responsibility for Data Collection	SEG and PCU
<b>Revenues derived from digital platforms (Percentage)</b>	
Description	The NEMA project implementation under sub-component 2.3 will support the SEG utility strengthening and turnaround program with a focus on digital transformation of operational procedures. An important work is planned in commercial aspects using the new software to facilitate clients payment through mobile banking. This will impact revenue collection for all customers (domestic, commercial, industrial, institutions, etc.). The indicator on digital platform will measure the use of digital payment in SEG revenue collection. Indicator = percent of Revenue payed annually through digital banking = Cumulative digital payment/Annual bill collection.
Frequency	Annual
Data source	SEG commercial software outputs
Methodology for Data Collection	Data collected monthly by SEG through its commercial software outpouts and consolidated annually. SEG will transmit this data to the PCU for quality control, documentation and reporting.
Responsibility for Data Collection	SEG and PCU
<b>Number of approved emptiers with operating licenses (Number)</b>	
Description	The sanitation sector reforms aim to provide support to professionalize the network of non-network service providers and improve the monitoring of service delivery. Septic tank emptiers and truck operators are informal players, with no licensing or quality control over their operations. Under the sub-component 2.2 the project will support for better



	regulation, through a licensing and training program to help these entrepreneurs dispose of fecal sludge more responsibly. The indicator is the number of approved emptiers operating with licenses, with a final target of 30 emptiers licensed. Number = Number of emptiers operating with license.
Frequency	Annual
Data source	Progress reports by the supervision firm/ DATU and those established by the PCU.
Methodology for Data Collection	DATU will collect data from the supervision firm of the sanitation entrepreneurs training program. It will transmit this data to the PCU for quality control, documentation and reporting.
Responsibility for Data Collection	PCU
<b>Creation of a New National Sanitation Agency (Yes/No)</b>	
Description	This indicator measures the creation of a new national sanitation agency as part of the Project. The agency will be responsible for overseeing, coordinating, and implementing sanitation policies and initiatives at the national level. Indicator = Yes or No, depending on whether the national sanitation agency has been created and is operational
Frequency	Annual
Data source	Official government documentation, decrees, or legal instruments confirming the establishment of the agency.
Methodology for Data Collection	The ministry of Energy, Hydraulics, and Hydrocarbons will provide official records and reports detailing the creation of the agency. The project team will verify the legal documents, assess the agency's operational status, and compile annual reports confirming the progress.
Responsibility for Data Collection	PCU
<b>Increase access to WASH in school facilities</b>	
<b>Pupil provided with basic sanitation facilities including single-sex facilities (Number of pupil)</b>	
Description	This indicator measures the cumulative number of pupils in school already have acces to basic sanitation facilities including single-sex facilities constructed and/or rehabilitated under the Project. Number = Number of pupil benefiting form facilities (50 pupils per latrines door max).
Frequency	Annual
Date source	Progress reports by the supervision firm/ DATU and those established by the PCU.
Methodology for Data Collection	DATU will collect data from the school authorities f and school statistic. It will transmit this data to the PCU for quality control, documentation and reporting.
Responsibility for Data Collection	DATU/UCP
<b>Pupil provided with Sanitation facilities in school sensitive to gender and people with desabilitie (Number of pupil) - Female (Number of pupil)</b>	
Description	This indicator measures the cumulative number of pupils in school already have acces to basic sanitation facilities including single-sex facilities constructed and/or rehabilitated under the Project. Number = Number of pupils benefiting from sanitation facilities *45percent (50 pupils per latrines door max).
Frequency	Annual
Date source	Progress reports by the supervision firm/ DATU and those established by the PCU.
Methodology for Data Collection	DATU will collect data from the school authorities f and school statistic. It will transmit this data to the PCU for quality control, documentation and reporting.
Responsibility for Data Collection	DATU/UCP
<b>School with access to basic sanitation facilities, including single-sex facilities (Pourcentage)</b>	
Description	This indicator measures the cumulative number school latrines constructed /rehabilitated im the project area. Number = cumulative number of latrines constructed/rehabilitated.
Frequency	Annual
Date source	Progress reports by the supervision firm/ DATU and those established by the PCU.
Methodology for Data	DATU will collect data from local contractors and its supervision firm on the number of basic sanitation facilities,



Collection	including single-sex facilities constructed/rehabilitated under the project. It will transmit this data to the PCU for quality control, documentation, and reporting.
<b>Component 3. Enhancing Water Resources Management in Selected Areas</b>	
<b>Areas of degraded forests that have been restored or rehabilitated (Hectare(Ha))</b>	
Description	This indicator measures the total area (in hectares) of degraded forest land that has been restored or rehabilitated under the project. This includes activities such as reforestation, afforestation, and sustainable land management practices that enhance forest cover and biodiversity.
Frequency	Annual
Data source	OGPNRF field reports; DNH technical reports on water resources in the Samou sub-basin.
Methodology for Data Collection	OGPNRF will track the amount of restoration and physical improvements in landscapes within the Samou sub-basin and the Gangan National Park. After review, it will transmit this data to the PCU for quality control, documentation and reporting. DNH will also consider the NBS restoration efforts in its state of the basin report.
Responsibility for Data Collection	OGNPRF and DNH
<b>Protection perimeters that have been established (Number)</b>	
Description	This indicator measures the number of protection perimeters established to safeguard restored or rehabilitated areas, including forests.
Frequency	Annual
Data source	Data will be collected by SEG and DNH from ground-based surveys, and local government records.
Methodology for Data Collection	DNH will collect data by using field verification and consultations with SEG and local authorities in the project area.
Responsibility for Data Collection	PCU
<b>Component 4. Capacity Strengthening and Project Implementation Support</b>	
<b>Young people benefitting from professional opportunities in water institutions (Number)</b>	
Description	A memorandum of understanding (MOU) will be developed between water institutions under the project and local universities and other centers of higher education who provide training on water related fields such as civil engineering, environmental management, and management of public enterprises. The students and recent graduates will be offered opportunities for internships and short-term work placements within water agencies like SEG, AREE, DNH, DATU and others. The indicator is the number of recent graduates benefitting of short-term assignment in the water agencies, with a final target of 50 people. Number = Number of professional opportunities delivered under the project.
Frequency	Annual
Data source	Progress reports of the MOU activities implementation established by the PCU.
Methodology for Data Collection	PCU will collect data from the progress reports, after quality control, documentation and reporting.
Responsibility for Data Collection	PCU
<b>Water and sanitation officials benefitting from certified project management training (Number)</b>	
Description	This indicator defines the number of water and sanitation officials benefitting from certified project management training under the Project, with a final target of 50 people. Number = Number of water and sanitation sector officials benefitting from project management training.
Frequency	Annual
Data source	Progress reports of the certified training program implementation established by the PCU.
Methodology for Data Collection	PCU will collect data from the progress reports, after quality control, documentation and reporting.
Responsibility for Data Collection	PCU



Verification Protocol: Performance Based Conditions

<b>PBC 1. Establishment of a national sanitation company and the adoption of its first program contract with the government (Yes/No) - \$1 million</b>	
Formula	One PBC with two parts split 50:50 in terms of cost
Description	<b>PBC 1.1. Adoption of the legal decrees establishing the new sanitation company in Guinea (\$500,000).</b> An institutional study will be undertaken to develop a roadmap for the creation and operationalization of the sanitation company. The study will include the drafts for the operationalization of the new company as well as the founding documents (charters, internal policies and so forth). The legal decree to establish the company is PBC 1.1.1. As part of the aforementioned study, the first program contract will be developed to establish the roles, responsibilities and relationship between the new company, ONAG, and the state. The contract will include targets and indicators to guide the functionality of the new company, as well as the state’s obligations (financial and other) to the company. The signing of the program contract is PBC 1.1.2. <b>PBC 1.2 First annual report of the activities of the sanitation company approved and published (\$500,000).</b> To ensure that the new company is operating as it should, this PBC indicator requires the publication of an annual report on the first year’s activities of the company. The report template will be developed by the technical assistance firm that will accompany the authorities to establish and operationalize the new entity.
Expenditures	PBC 1.1 (\$500,000 in total) will disburse against the expenditures under Component 2.3, including: the TA firm, equipment for the new company and consulting services. The annual report (PBC 1.2 or \$500,000) will disburse against sub-component 4.1 on project management, to ensure that there is an incentive for the project implementing agencies as a whole to support the sanitation reform.
Data source/ Agency	MUHAT will provide evidence of the new legal status of the sanitation company to PCU, the World Bank and the IVA. MUHAT will likewise submit the final program contract to the same entities for review and validation. For PBC 1.3, the new sanitation company will submit its annual report to its titular ministry, MUHAT and to PCU, the World Bank and the IVA.
Verification Entity	An independent verification agency will be hired to monitor and verify the PBCs.
Procedure	MUHAT will provide supporting documentation to the World Bank Task Team for technical review. Upon the World Bank’s validation, MUHAT will submit the evidence to the IVA for verification and validation. Thereafter, the funds can be disbursed from the designated PBC account.

**PBC 2. Adoption and implementation of the new tariff policy for drinking water for urban areas covered by SEG (Yes/No) - \$8 million**



Formula	US\$8 million for one PBC
Description	<b>PBC 2.1 Adjustment of water tariffs as per the Government’s new tariff methodology (US\$8 million).</b> The Government of Guinea has signed a new tariff decree in 2025 to increase water tariffs by 30percent on average (of which 16percent for households), under the Guinea Fiscal Sustainability DPO. Another prior action under the DPO is the legal adoption by the Government of a new tariff methodology which includes additional measures to help SEG progress towards operational cost recovery. PBC 3.1 supports the implementation of the new tariff methodology by requiring that tariffs be adjusted as per the provisions of the 2025 tariff methodology, which specifies: i) a 16percent tariff adjustment starting in 2026; ii) indexation of tariffs to inflation; and iii) an operational subsidy equivalent to 10percent of water sales. The disbursement of the allocated amount (US\$8 million) will be contingent on the submission of the regulator’s report certifying that tariffs have been applied as per the provisions of the new methodology. This will help strengthen the virtuous cycle that the initial tariff adjustment (PBC 3.1) will put in place.
Data source/ Agency	Government decrees, SEG financial statements, AREE reports.
Expenditures	PBC 2.1 disburses against Component 1.2, splitting the US\$8 million allocation for the PBC across two sets of civil works: a) 50percent of the amount (US\$4 million) will be allocated to civil works for the distribution network in the Maneah sector, which are estimated at US\$8.6 million. Therefore, the US\$4 million for the PBC is equivalent to about 50percent of the cost of civil works for this sector. b) The other 50percent of the amount (US\$4 million) will be allocated to civil works for the distribution network in the Kagbelen sector, which are estimated at US\$12.2 million. Therefore, the US\$4 million for the PBC is equivalent to about 33percent of the estimated cost of civil works for this sector. The network extension works in the Maneah sector (US\$4 million of PBC = 50percent of US\$8.6 million of work costs).
Verification Entity	An independent verification agency will be hired to monitor and verify the PBCs.
Procedure	SEG will submit its annual financial statement to MEHH and to AREE. The Government will submit the decrees setting new tariffs and the tariff adjustments and SEG will submit customer invoices showing the application of the tariff adjustments.

<b>3. Adoption of the State-SEG Concession and a new program contract (\$5 million)</b>	
Formula	50percent: 50percent for each PBC indicator
Description	<b>PBC 3.1 Adoption of the State-SEG concession agreement and its appendices (US\$1 million).</b> A draft of the concession agreement and its appendices will be developed during preparation. The PBC requires both the Government and SEG to officially/ legally adopt the concession agreement that designates SEG as the delegated manager and operator of water infrastructure in Guinea and also defines the program contract between the Government and SEG. The program contract will define the objectives and priorities for the two parties over a defined period (expected to be 5 years) as well as the obligations and key performance indicators (KPIs) that the regulator, AREE, will monitor. US\$1 million will be disbursed once the concession agreement and program contract are legally adopted.



	<p><b>PBC 3.2 Regulator’s report on the results of the State-SEG program contract and publication of SEG’s audited financial statements over the period of the program contract (US\$4 million).</b> This condition will incentivize the application of the program contract between SEG and the Government, to ensure that the KPIs and targets are met. The water regulator, AREE, will be tasked with monitoring KPIs but to strengthen its compliance powers, the PBC will require that it publishes a report on the progress seen under the program contract. Moreover, SEG will be required to publish audited financial statements of its operations, with the expectation that its Governing Board and the regulator will have reviewed and validated the audited document. The PBC of US\$4 million combines both the regulator’s report and SEG’s audited statements to ensure there are cross-pollination of efforts and to strengthen implementation of the desired measure.</p>
Expenditures	<p>PBC 3.1 (US\$1 million) disburses against equipment and technical assistance under Component 2.2 support to SEG’s utility turnaround.</p> <p>PBC 3.2 (US\$4 million) disburses against project management costs under Component 4.1 including the operating cost for the PCU and support to technical agencies.</p>
Data source/ Agency	<p>SEG’s reports; project monitoring and evaluation reports as managed by the PCU; Government budget reports and other relevant communications.</p>
Verification Entity	<p>An independent verification agency will be hired to monitor and verify the PBCs.</p>
Procedure	<p>The Government (MEHH) will submit the signed concession agreement to the IVA, the regulator (AREE) and the World Bank. The regulator (AREE) will submit its report on the results of the concession agreement to the IVA and the World Bank. An independent auditor will be hired to audit SEG’s financial statements and the results will be submitted to SEG, its Board and AREE for validation. The IVA will verify that these steps have been undertaken in due course.</p>



**ANNEX 2. CONTRIBUTIONS OF PROJECT COMPONENTS TO CLIMATE RESILIENCE**

1. A detailed climate and disaster risk assessment was developed during project preparation and helped inform the development of actions under the project that will contribute to climate resilience. Table 1 provides a summary.

**Table 1. Contributions of project components to climate resilience**

Activity	Link to climate vulnerabilities
1. Construction of new water treatment plant (Yessoulou IV) (Component 1.1)	Reliable water services in the fast-growing capital city will replace the proliferation of boreholes and the use of diesel-powered water trucks. These alternative water sources emit greenhouse gases and, in the case of boreholes, could reduce the availability of this crucial resource, which is a buffer in times of drought if surface water becomes scarce. Climate projections show declining precipitation and increased temperature over time, meaning that Guinea cannot take its water resources for granted.
2. Reservoirs and distribution networks (Component 1.2)	The distribution system for water in Greater Conakry will be gravity fed, thus contributing to climate mitigation. The 24 stand posts under the component will have solar installed for some, or all of them.
3. Reduction of non-revenue water (Component 1.3)	By reducing water losses, utilities can delay the need for new water infrastructure investments. This not only saves financial resources but also reduces the environmental impact associated with constructing new facilities, which can be significant in terms of carbon emissions and resource use.
4. Support for the implementation of tariff reforms (Component 2.2)	Water tariff reforms will generate a virtuous cycle, including not only boosting the utility’s revenues but also phasing people away from boreholes and other inefficient water uses. There will be social campaigns and water.
5. Support for sanitation reforms (Component 2.3)	In the governance arrangements, we could provide technical assistance on tracking methane emissions in their wastewater plants
6. Water, sanitation and hygiene (WASH) in schools	Constructing latrine blocs will prevent the discharge of fecal matter into the water table, thus boosting the quality of groundwater – a known buffer against dry periods. The design of latrine blocs will feature climate resilient features such as solar panels for lighting.
7. Setting up protection perimeters for boreholes (Component 3.3)	Protection perimeters help safeguard groundwater resources from man-made or flooding-related contaminations. This is achieved by upgrading borehole headworks to prevent the intrusion of contaminated water and regulating potentially polluting activities within the perimeters. This ensures the quality of groundwater remains high, which is crucial during climate-induced events like floods. In addition, by protecting boreholes, the availability of clean water is maintained even during extreme weather events. This is particularly important in areas prone to droughts or floods, as it ensures a reliable water supply for communities, thereby enhancing their resilience to climate variability.



### ANNEX 3. ADDITIONAL INFORMATION ON PROJECT COMPONENTS

#### Financing of the Overall Greater Conakry Water Project

1. The Greater Conakry Drinking Water Masterplan (SDAEPGC) assesses that US\$1.7 billion must be invested through 2040 to achieve universal piped utility service in Greater Conakry. The first phase of the master plan comprises US\$700 million<sup>32</sup> of water infrastructure investments, for which GoG has mobilized parallel financing from partners including IDA, European Investment Bank (EIB), Exim Bank of India, and European Union (EU) among others. Table 1 provides an overview of the estimated financing needs for SDAEPGC.
  
2. **The contribution of each financing partner can be summarized as follows:**
  - a) **IDA** will finance a new water treatment plant (Yessoulou IV) to supply Greater Conakry, as well as the construction of new distribution pipelines (105km) to transport the treated water to 3 municipalities – Kouria, Kagbelen and Maneah; 2 reservoirs to store water; and 9,370 connections for new and existing SEG customers. These investments are part of Phase 1 civil works under the 2040 Master Plan. Outside of the Master Plan’s scope, IDA will also finance a non-revenue water component to fix physical leaks in the existing distribution network and address commercial losses from faulty meters and poor billing practices. IDA will also finance sanitation institutional reforms, including the creation of a new sanitation office; communication campaigns to support the roll out of new tariff measures; technical assistance to the water regulator, AREE; protection of SEG’s boreholes to preserve groundwater resources; a utility turnaround program for SEG to strengthen its internal organizational functions; project management costs (PCU, Steering Committee and consultant services for audits, the IVA and supervision of civil works under its project area). Lastly, IDA funds will also cover resettlement costs for persons affected by the project (PAPs) in the IDA scope but also the area covered by EIB, EU and GoG’s activities.
  
  - b) **Exim Bank India** will finance the raw water intake at Grandes Chutes dam and a 44km raw water transmission pipeline from Grandes Chutes to the Yessoulou complex. This financing – a US\$170 million loan - is considered parallel financing and is external to PEAG.  
  
**EIB and the EU** will blend their respective loan (€220 million) and grant (€26 million) – 245 million euros or US\$274 million equivalent – to finance: mechanical upgrades to the Grandes Chutes, Baneah and Kale dams to replace faulty dam equipment and ensure their safe maintenance; the treated water transmission pipeline (51km) from Yessoulou to the reservoirs where the water is stored; 5 reservoirs for storing water; 269 kilometers of distribution pipelines and 18,750 household connections. EIB and EU financing will also pay for the costs of the project management firm (AMO) that will support SEG and the PCU in executing key project functions. EIB-EU’s financing is cofinancing for the Project.
  
  - c) **GEF** will fund a component on nature-based solutions (NBS) in the Kankoure basin and the Gangan National Park. A detailed technical study is under development and will inform the final NBS activities. GEF’s funding will also support the operations of the rangers of the national parks office, OGPNRF, who will patrol the Gangan National Park (GNP) to subvert activities that can degrade the ecosystems on which the downstream water source for Greater Conakry depends. Other activities supported by GEF include income-generating activities for local

<sup>32</sup> Excluding taxes. Unless otherwise specified, taxes are not included in project costs in this document.



communities; technical assistance for OGPNRF; institutional measures for the demarcation and zoning of the GNP; and consultations, workshops and training. GEF’s funding is cofinancing for the operation.

- d) **The Government of Guinea** will finance with its own funds the rehabilitation of 17 kilometers of existing distribution pipelines serving two neighborhoods of Conakry.

**Table 1 Financing Break-down for the first tranche of the Greater Conakry Masterplan**

		Total cost of program (US\$ HT)	EXIM Bank India	IDA/GEF	EIB/ EU	Counterpart funding
<b>Details of project activities</b>						
<b>TOTAL COST of Tranche 1</b>		<b>\$669,092,000</b>	<b>\$170,000,000</b>	<b>\$210,092,000</b>	<b>\$274,000,000</b>	<b>\$15,000,000</b>
<b>Total PEAG financing (IDA + cofinanciers)</b>				<b>499,092,000</b>		
<b>Component 1: PHASE 1 GREATER CONAKRY WATER PROJECT</b>		<b>\$612,000,000</b>	<b>\$170,000,000</b>	<b>\$172,000,000</b>	<b>\$255,000,000</b>	<b>\$15,000,000</b>
Grandes Chutes-Yessoulou raw water intake and raw water pipeline		\$170,000,000	\$170,000,000			
Dam safety upgrades (3 dams)		\$18,000,000			\$18,000,000	
Yessoulou IV Plant		\$99,000,000		\$99,000,000		
Treated water pipeline – 55km		\$150,000,000			\$150,000,000	
Tanks and distribution networks*		\$130,000,000		\$28,000,000	\$87,000,000	\$15,000,000
Non-revenue water		\$27,000,000		\$25,000,000		
Compensation of PAPs		\$18,000,000		\$13,000,000		
<b>Component 2: Support to Water Sector Performance, and Institutional and Policy Reforms</b>		<b>\$16,000,000</b>		<b>\$16,000,000</b>		
Component 2.1	Support for the implementation of urban water sector reforms	\$2,000,000		\$2,000,000		
Component 2.2	Support to SEG utility strengthening and turnaround program	\$10,000,000		\$10,000,000		
Component 2.3	Support for sanitation sector reforms	\$2,000,000		\$2,000,000		



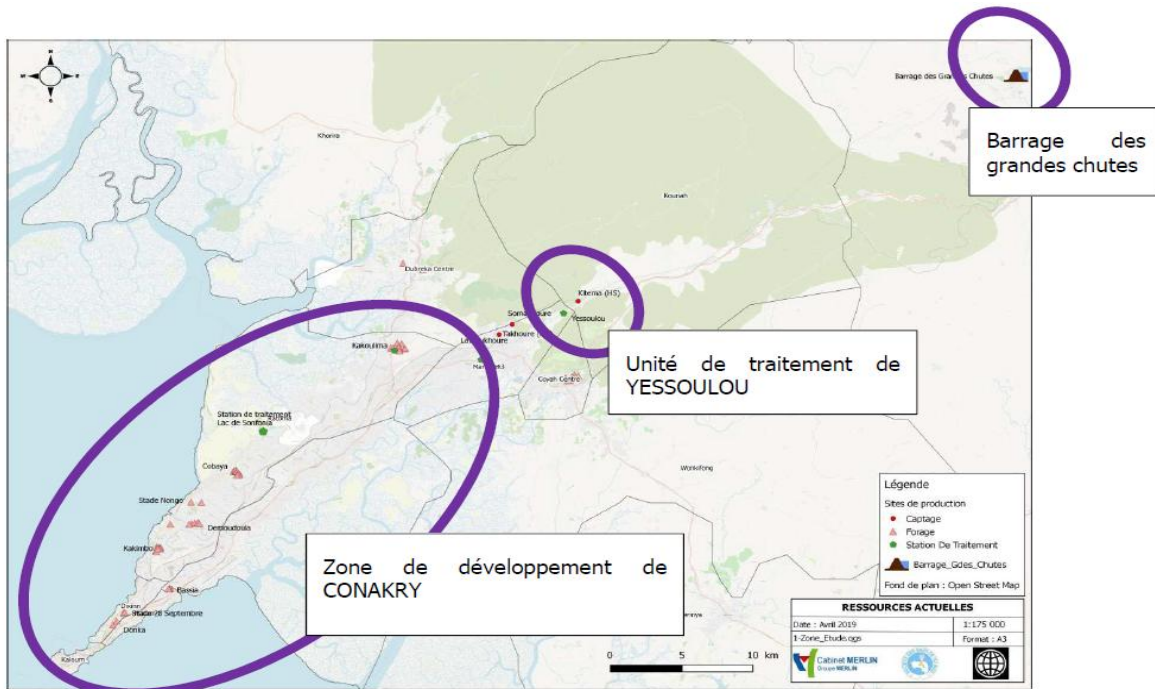
Component 2.4	WASH in schools	\$10,000,000		\$10,000,000		
<b>Component 3: Enhancing water resources management in selected areas</b>		<b>\$11,262,000</b>		<b>\$11,262,000</b>		
Component 3.1	Nature-based solutions to control soil erosion and reservoir sedimentation	\$8,000,000		\$8,000,000		
Component 3.2	Community engagement for a sound water resource management	\$1,262,000		\$1,262,000		
Component 3.3	Protection perimeters for water supply boreholes	\$2,000,000		\$2,000,000		
<b>Component 4: Project Implementation Support</b>		<b>\$29,830,000</b>		<b>\$10,830,000</b>	<b>\$19,000,000</b>	
Component 4.1	Project Management	\$26,480,000		\$7,480,000	\$19,000,000	
Component 4.2	Technical Assistance to Implementation Agencies	\$2,350,000		\$2,350,000		
<b>Component 5: Contingent Emergency Response Component</b>		<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>-</b>

**COMPONENT 1. INCREASING AND IMPROVING WATER SERVICES IN IN GREATER CONAKRY**

3. The Greater Conakry Water Program implements all Phase 1 investments, including a 200,000 m<sup>3</sup>/day expansion of potable water production capacity, and significant expansions and strengthening of water distribution infrastructure. However, IDA’s contribution – PEAG - will also fund investments and activities not included in the SDAEPGC, including for non-revenue water reduction, water resource protection, utility capacity building and performance turnaround, as well as institutional reforms. Figure 1 provides an overview.



Figure 1. Overview of the Greater Conakry Water Project – Phase 1



4. Currently, SEG’s water production capacity is limited 150,000m<sup>3</sup>/day of which three-quarters is from three existing treatment plants at Yessoulou (surface water)<sup>33</sup> and a quarter from boreholes (groundwater). Against this capacity is a peak day requirement of about 370,000m<sup>3</sup>/day, leaving a deficit of 220,000 m<sup>3</sup>/day. Under the Greater Conakry Water Program, the IDA-financed PEAG will fund a water treatment production capacity of 200,000 m<sup>3</sup>/day to reduce significantly – but not eliminate – the water deficit in Greater Conakry. The remaining 20,000 m<sup>3</sup> of water production needed to completely reduce the water supply deficit will be addressed through other sources of finance and the Bank will support the government to identify financing partners.<sup>34</sup> However, over the long-term, SEG might abandon groundwater as a source of water supply, such that the balance requirement would be 70,000 m<sup>3</sup>/day.

### Sub-component 1.3 Non-revenue water reduction

5. The performance contract for the reduction of non-revenue water is structured to encourage efficiency in achieving performance results and to strengthen the ability of SEG to manage and reduce losses. The remuneration of the specialized company is based in part on performance. The selected company will manage and organize leak reduction and management activities and will have complete responsibility for:

- Design and carry out work to improve water distribution, in particular by (i) creating distribution metered areas, (ii) rehabilitating bulk metering by installing flow meters at the various water entry points into the distribution network, (iii) implementing a supervisory control and data acquisition system (SCADA); (iv) updating the geographic information system (GIS); (v) partially rehabilitating the water distribution network.

<sup>33</sup> The three stations are Yessoulou 1 (commissioned in 1964), Yessoulou 2 (commissioned in 1994 with IDA financing) and Yessoulou 3 (commissioned in 2009 with JICA financing). Raw water enters the stations through two pipelines, DN 800 and DN 1000. The DN800 water is treated by Yessoulou 1, and the DN1000 water is treated by Yessoulou 2 and 3.

<sup>34</sup> A water forum and roundtable took place in May 2023 to help mobilize additional financing from development partners.



- Design and manage a non-revenue water reduction program, including diagnosing and assessing water losses, hydraulic modeling, detecting and repairing leaks and breaks in pipes, and selectively replacing user connections and revenue meters.
- Develop a business performance improvement program that includes updating the customer database through systematic field surveys of connections and meters, developing a water meter management procedure, and developing a billing and collection improvement plan.

6. The contract lasts around four years, including one year to define the water loss reduction strategy and plan, including initial diagnosis of physical and commercial losses and implementation of network rehabilitation in a pilot area. The organization of the water distribution network in district-metered areas and its rehabilitation will be carried out gradually during years two to four. The transfer of know-how and capacity building of SEG staff is to start before the end of the contract's third year.

**COMPONENT 2: SUPPORT WATER AND SANITATION SUPPORT TO WATER SECTOR PERFORMANCE, AND INSTITUTIONAL AND POLICY REFORMS**

**Additional information on the SEG Turnaround program (performance improvement) and NEMA**

**Context**

7. SEG is a public state-owned utility of the Republic of Guinea that was created in December 2001. It is responsible for distributing drinking water to urban centers nationwide. SEG manages the water service throughout Guinean territory within a 3-year contract plan framework with the State through its two supervisory ministries: technical supervision with MEHH and financial supervision with the Ministry of the Economy, Finance and Planning. The government has established a contract plan that binds the SEG and the State, lasting 3 years. The current contract was signed in 2021 and ended in 2023. However, this contract was never evaluated at its expiration. The price of water has not increased since 2013 and is set by the supervisory Ministries within the framework of the plan contract.

8. The drinking water supply of the city of Conakry is 85percent provided by surface water (Yessoulou and Captages de Kakoulima) and 15percent by groundwater consisting of different industrial drilling sites located in various neighborhoods in Conakry. The SEG service area covers 4.9 million people, 56percent of whom are based in Conakry. However, even for existing customers with access to piped water supply, the quality of the service is limited, particularly in terms of continuity of supply, with a theoretical production level of 31 liters per capita/ day. Table 2 provides an overview of SEG’s key performance indicators.

**Operational and commercial performance of SEG remain weak**

9. It is important to recognize that the lack of water production is the root cause of the overall poor technical and commercial performance, as limited water supply affects the continuity of service and the revenues available to the utility. In addition, the commercial approach to metering (not generalized) and tariff revision (last updated in 2013) are also structural causes.

**Table 2. Key indicators & benchmark (based on the Utility of the Future framework)**

Component	Elementary	Basic	Good	Well Performing	World Class
<b>Reliable</b>					



Continuity (hours/day on average)	Intermittent supply.	≥8–15	>15–20	>20–24	24
Availability (l/pc/day)	21	≥30–50	>50–120	>120–240	>240
<b>Safe</b>					
Water quality (samples meeting all WHO guidelines) (percent)	<50	≥50–85	91.79	>95–97	>97–<100
<b>Inclusive</b>					
Drinking water coverage (percent)	<50	≥50–75	>75–85	>85–95	>95–<100
<b>Responsive</b>					
Customers satisfied with service (assessment in the past 2years) (percent)	No data	<40	≥40–55	>55–70	>70–90
Grievances satisfactorily resolved within seven days (percent)	No data	<25	≥25–50	>50–70	>70–<100

10. The network's performance for the 2022 financial year is 57percent (54percent in Conakry). Physical losses are significant, despite often low supply pressures, frequent shutoffs and entire areas of the city where water does not reach. A significant proportion of the leakage comes from domestic connections, which are often poorly made and in disrepair. As for commercial performance, the overall billing rate was 62percent in 2022. The collection rate for private customers was 53percent in 2022. The collection rate for public customers is only 33percent. Note that public customers account for nearly 60percent of the volumes (3percent of total customers). Water metering is not universal. Only 22percent of bills are based on metered volumes, whereas 78percent is based on a fixed rate. There last tariffs were revised in 2013. No tariff update has been implemented since 2013. Invoices are based on consumption only (no fixed part). The accuracy of the customers database is questionable, and records have not been audited or updated for years.

**Several initiatives in recent years have helped to redress SEG's situation**

11. The previous IDA project, PUEG, (P157782, implemented between 2019 and 2023), supported a series of studies and projects to improve operational excellence and commercial performance: The deployment of a new commercial system, associated with a new data and communication infrastructure will strengthen a modern and efficient billing and money collection cycle and a enhance customer relationship management. Moreover, under PUEG, a new IT master plan has been updated, shaping the needs and the organisation of the technology components for the next 5 years.

12. Technical assistance on non-revenue water improvement set the foundations for a sub project dedicated to network optimization: the PACT (*projets d'amélioration commerciale et technique*). This network improvement programme was deployed across two components (on funded by AFD and the other by the World Bank under PUEG). The latter led to the installation of 12000 individual meters, renewal of 2.5Km of main pipes, 75 leakages fixed on main pipes



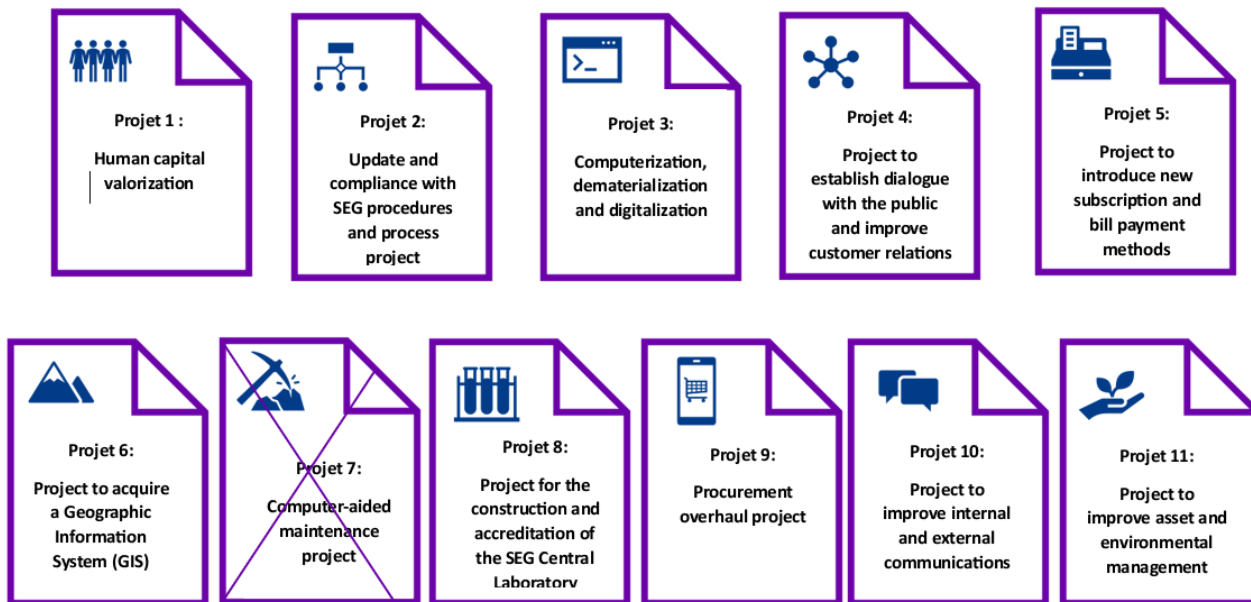
and 1097 rehabilitated water connections. The approach is meant to be the starting point of a new team dedicated to network management and non-revenue water (NRW) optimization. Regarding impacts, in the pilot areas of 6 agencies in Conakry, the PACT programme led to significant commercial improvements in metered consumptions (95percent) and metered billed customers (98percent), with an overall money collection rate of 90percent.

**NEMA, a strategic program that creates a framework for the modernization of SEG**

13. SEG has established a transformation plan to structure a project-oriented pathway aligned with priority issues and objectives defined by the General Management. This initiative was funded by AFD in 2022 and is referred to as « NEMA » (*Notre Eau Maîtrisée et Accessible*). The 5 pillars of this plan are: i. improve NRW ratio, ii. increase sales, iii. innovate for better reliability and performance, iv. manage risks better, v. improve customer satisfaction. These objectives were broken down into 10 prioritized components focusing on digitalization, human resources (HR), citizen engagement, water quality, procurement and asset management. The estimated cost of these projects is US\$10 million over a period of 5 years. Figure 2 shows the overview of all 10 components. Beyond investment in new infrastructures, PEAG aims to support the delivery of these initiatives at SEG while establishing a turnaround and performance plan. Primary focus will be on improving the operational performance of SEG, to enable it not only to manage the expansion of water assets and services under its mandate, but also to anticipate and plan for future investments.

14. An enhanced technical assistance firm will be recruited to accompany SEG in the implementation of its transformation roadmap. This arrangement would be more collaborative and would focus on updating SEG’s organizational and governance set-up (without changing its legal stature); modernizing its internal tools and systems; and strengthening its relationship with the state, its partners (including the private sector) and the citizens. The firm would work closely with SEG management and bring international good practices to bear on the company. This approach has proved effective in other countries with similar institutional challenges (e.g. Burkina Faso in the 1990s and the Gambia most recently) and can provide SEG with needed external and ongoing advice, which would be a step up from the current ad-hoc approach of contracting various engineering and consulting firms.

**Figure 2. Overview of the NEMA Pillars**





**Additional Information on Sanitation**

**Overview of existing infrastructure and services**

15. The sanitation infrastructure needs (liquid or solid) of the Republic of Guinea are enormous. Only the communes of Greater Conakry are partially covered by collective sanitation network infrastructures (Kaloum is fully covered, Dixinn and Matam are partially covered) as well as some mining localities (Fria, Kamsar). However, the expected increase of up to 200,000 m<sup>3</sup>/day of new water supply in Greater Conakry raises questions about the wastewater that would be generated as a byproduct. Between 70percent and 80percent of this water will end up as wastewater after consumption and if it is not properly treated and disposed of, could have adverse impacts on the environment and human health.

**Current Infrastructure**

16. Currently, there are only three communes – Kaloum, Dixinn and Matam – that have piped wastewater infrastructure. Table 3 illustrates. The commune of Kaloum is almost entirely covered by a wastewater collection network of approximately 75 km and five pumping stations, with around 1,000 households connected to the network. None of these five pumping stations are operational. The wastewater is discharged directly into the sea without any treatment, through the overflow procedure. A part of the commune of Matam and a part of the commune of Dixinn benefited from the Arab Bank for Economic Development in Africa (BADEA) funding amounting to US\$8 million. A wastewater collection network of 23.1 km and two pumping stations were constructed. However, the pumping stations have not been operational since their provisional acceptance.

**Table 3. Overview of Sanitation Facilities**

N <sup>o</sup>	AREA	SOURCE OF FINANCING	TYPE OF INFRASTRUCTURE	CAPACITY	PROPORTION OF LOCAL POPULATION CONNECTED	OPERATIONAL STATUS
1	Kaloum	World Bank	5 pumping stations and wastewater collection network	75 km	98percent	Non functional
2	Moussoudougou network	BADEA	2 pumping stations and wastewater collection network	23,1km	12percent	Partially out of service
3	Dixinn et Matam	Kingdom of Morocco	2 pumping stations and wastewater collection network	28,26 km	10percent	
4	Matoto	AFD	Installation of compost toilets	N/A	25percent	N/A
5	Modernization/extension of the Conakry WWTP and rehabilitation of the 5 pumping stations in the Municipality of Kaloum	Islamic Development Bank, Morocco and Govt. of Guinea	Modernization and extension of the wastewater treatment plant and Modernization/rehabilitation of the 5 Kaloum pumping stations	WWTP: (27 000 m <sup>3</sup> /j) Pumping stations: (500m <sup>3</sup> / h)	29percent (Population of Conakry, 2.500.000 residents)	



6	Sonfonia fecal sludge treatment plant	-	-	125 m <sup>3</sup> /day		Out of service since 2012
7	Yimbaya fecal sludge treatment plant	-	-	125 m <sup>3</sup> /day		Out of service since 2012
8	70 Spiro emptying trucks, with on average two rotations per day.	-	-	-	-	Trucks are on average 25 years old.
9	6 parking sites for vacuum trucks					These are informal sites

**ADDITIONAL INFORMATION ON THE NBS COMPONENT UNDER GEF FINANCING (COMPONENT 3)**

**Background on necessity for improved water resources management and the role of NBS**

17. Water is a key issue in Guinea's climate change adaptation strategy. The National Water Policy, approved in 2018, aims to develop an integrated approach to water resources throughout the country and to address the challenges of climate change. Climate risks are already affecting, and will continue to affect, the sustainability of water resources and related infrastructure. Although Guinea is endowed with abundant water resources, significant changes in rainfall patterns have been observed in recent decades and are expected to continue in the future, coinciding with a gradual increase in temperature in the country since 1970 at an average rate of 0.20°C per decade (compared to 0.16 °C in Conakry).

18. Land use changes in the Samou River basin upstream of the Baneah, Kaleh, and Grandes Chutes dams are thus a major concern related to the water supply of Greater Conakry. The Samou River joins the Konkouré River near its downstream end. Increased anthropogenic pressure from deforestation (for slope-side rainfed rice cultivation and urbanization) and slash-and-burn agriculture (especially on slopes) contributes to soil degradation and accentuates vulnerability to heavy rainfall, which augments sediment transport.

19. In addition to the problems of sediment transport exacerbated by the ongoing land use changes, the chemical quality of the water is also a concern. Urban expansion (especially around the city of Kindia) increases the vulnerability of the resource to pollution, as does the development of agricultural activities in the area. While the nitrate levels measured in the raw water of the SEG remain well below the legal limits (available measurements show nitrate concentrations of less than 10 mg/l), there are no pesticide measurements to rule out this type of contamination.

**Component 3.1 Nature-based solutions (NBS) to control soil erosion and reservoir sedimentation (\$8 million – LDCF/GEF)**

20. NBS to be implemented in the Samou sub-basin include a variety of approaches designed to manage water runoff, promote infiltration, stabilize soils, store water, provide shade, and positively influence evapotranspiration. Annex 7 provides a map of the project area. The NBS menu of options that will be supported by the project includes the following: (i) Terrace improvement for cultivated land, including planting nitrogen-fixing hedge species along the terraces, and implementing agroforestry techniques; (ii) Landslide mitigation for areas at high risk of landslides, including re-vegetation of bare slopes and implementation of bioengineering for slope stability; subsurface drainage, and construction of retaining walls; (v) Restoration/rehabilitation of degraded forest lands, including planting fuel and fodder tree species and (vi) Restoration/rehabilitation of degraded grasslands, including the establishment of green belts, buffer strips, rotational



grazing areas, fodder plantations, and improvement of silvicultural practices. In parallel to implementing these measures, alternative livelihood programs (ALPs) will be put in place to reduce deforestation. This effort would be complemented by awareness-raising activities for the population to reduce pollution and deforestation in the sub-basin. Women and youth groups would be actively involved in designing and implementing these complementary measures, as crucial stakeholders and agents of change.

21. OGPNRF will implement this component under the overall guidance and supervision of the PCU and MEHH. OGPNRF is already benefitting from Technical Assistance (TA) under the Natural, Mining and Environmental Resources Management Project (P168613) that focused on strengthening OGPNRF's technical, administrative, and financial knowledge and capacity for the management of protected areas in Guinea.<sup>35</sup> This TA will be extended under PEAG. This sub-component will also support the rangers of OGPNRF in the establishment of patrols to control and monitor the protection measures that will be implemented in the integral, intermediate, and peripheral zones of the park. To align with World Bank guidance on working in protected areas, a process framework will be developed for OGPNRF's activities under PEAG, and a memorandum of understanding will be signed between OGPNRF and the PCU on all aspects of projects management, including the application of ESF specific measures.

### **Component 3.2 Community engagement for a sound water resource management (\$1.262 million – LDCF/GEF)**

22. The Konkouré basin, including the Samou sub-basin, is a critical agricultural area, renowned for its rice production downstream of dams, before the river flows into the mangrove ecosystem and the sea. Phase 1 of the Greater Conakry Master Plan for water supply anticipates additional water withdrawals of approximately 200,000 m<sup>3</sup> per day in the upper basin—more than double current levels. Ensuring compatibility between increased withdrawals for drinking water supply and the preservation of coastal mangroves—which play a crucial role in protecting rice fields, preventing coastal erosion, and supporting vital fishery resources—will be a central priority.

23. To support this, the sub-component will assist the GoG in fostering a balanced and sustainable approach to water allocation. This will involve engaging all water users—especially those reliant on water infrastructure for power generation and agriculture, as well as local communities and municipalities—to ensure a coordinated response to current and future water demands. In particular, it will focus on facilitating inclusive water governance through the establishment of a Basin Committee as a pilot initiative under the Water Act.

24. The pilot Basin Committee will include diverse stakeholders such as DNH, SEG, EDG, municipalities, water associations, private sector actors, and representatives from the Samou sub-basin, ensuring that the perspectives of both downstream and upstream users are integrated into decision-making processes. Rather than prioritizing the immediate creation of a comprehensive basin plan, the initial funding will focus on foundational knowledge-building activities. These include the development of a Basin Profile, Water Resources Assessment, Basin Monitoring Strategy and State of the Basin Report, which will collectively provide a shared understanding of the basin's hydrological and socio-economic dynamics.

25. By laying these foundations, this sub-component aims to foster an informed, inclusive, and community-driven approach to Integrated Water Resources Management. Over time, this will guide equitable water allocation decisions and sustainable practices, ensuring that the needs of urban drinking water supplies, agricultural interests, and vital coastal ecosystems are met.

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<sup>35</sup> The government aims to increase protected area coverage from 15 to 25 percent of the national territory and has integrated the creation of the GNP into its efforts to expand the protected area network, as announced at the CBD COP 15 in Montreal in 2022.



**Sub-Component 3.3. Protection perimeters for water supply boreholes (\$2 million - IDA)**

26. This sub-component will contribute to the implementation of the Water Act by establishing pilot protection perimeters upstream of the boreholes operated by SEG in urban areas to supply drinking water to Conakry. This sub-component is designed to protect the drinking water catchment area from direct contamination. The activities will include clarifying land use for the well-fields to prevent any adverse activities in the zone that could undermine water quality; installation of fencing and landscaping of the immediate protection perimeter nearby the wells, including filling of low spots to prevent surface water stagnation. These activities will enhance the local environment through improved land management and increased green spaces, which will contribute to biodiversity and ecosystem stability. Additionally, they will create job opportunities for residents through the implementation and maintenance of the protection perimeter, thereby supporting local economic development.

27. This sub-component will also support the drafting of decrees for implementing the Water Act, which requires the establishment of protection perimeters around the boreholes operated by SEG for drinking water supply. It will also support the definition of regulatory texts defining easements within those perimeters. In the absence of national regulations, the extension of the so-called “close” protection perimeter will be proposed based on international best practices, such as including the entire catchment area for a transfer time of 50 days.

28. Beneath the area of the close protection perimeters, the sub-component will oversee technical assistance for conducting an inventory of pollution risks and implementing measures to reduce the risk of accidental contamination of groundwater from potential pollution sources, including the relocation of car wash facilities, the removal of underground fuel tanks (in most cases replaced by overhead tanks with retention basins), and the neutralization of individual wells. Risk reduction activities are carried out either directly by SEG or by the private owners of the facilities, with support in the form of subsidies (protection work) or compensation (measures to interrupt or relocate activities). These risk reduction activities will mitigate health and environmental issues, such as reducing exposure to hazardous substances from underground fuel tanks and preventing groundwater contamination from car wash facilities. This will help protect public health by reducing the risk of waterborne diseases and pollutants and enhance environmental quality by safeguarding local ecosystems and ensuring cleaner drinking water.

**COMPONENT 4: PROJECT IMPLEMENTATION SUPPORT**

**Additional Information on the Guinea Fiscal Sustainability DPF**

29. The DPF is expected to be presented to the Board in FY25. Water is one of the reform areas identified and a prior action on tariff reform has been included to help boost the financial viability of water service deliver. Table 4 provides an overview of this prior action.



**Table 4. Overview of the water prior action in the DPF**

<p><b>Prior Action #3.</b> To enable financial viability of water sector operations, the Recipient has adopted and implemented a tariff-setting methodology that determines tariff levels that cover operating costs of the urban water utility company (SEG).</p>	<p><b>Results Indicator #3:</b></p> <p><b>3.1 – Water tariffs adjustment and application by January 2025</b></p> <ul style="list-style-type: none"> <li>- Increase of average water tariff by: + 30percent</li> <li>- Increase of domestic consumers tariff by: +16percent</li> </ul>	(October/2024)	(January /2025)
		0	30percent
		0	16percent
	<p><b>3.2 – Clearance of accumulated liabilities in SEG's balance sheet by Year 2025</b></p> <ul style="list-style-type: none"> <li>- By cross offsetting the Administration's claims against the SEG's tax debt.</li> <li>- Recapitalization of SEG to the tune of about GNF 150 billion.</li> </ul>	(October/2024)	(April/2025)
		No	Yes
		Yes	Yes
		(October/2024)	(January/2026)
<p><b>3.3 – Restoration of SEG's financial equilibrium and sustainability of its financial balance by Year 2026</b></p> <ul style="list-style-type: none"> <li>- Establishment and application of a formula for indexing water tariffs to inflation.</li> <li>- Application of the equilibrium tariff increase estimated at +16percent (breakdown by categories and tariff scales to be specified later).</li> <li>- Establishment and application of a transitional balancing subsidy during the first five-year period, estimated at 10percent of water sales.</li> </ul>	No	Yes	
	0	16percent	
	No	Yes	

**Details of the financial management assessment**

30. The FM risk assessment and mitigation measures are summarized in Table 5.

**Table 5. Overview of key risks and mitigation measures for financial management**

Inherent Risks	FM Risk	Risk Mitigation Measures	Residual Risk
<b>Country Level</b>			
Low PFM capabilities	<b>S</b>	Project will be implemented by a new Project Coordination Unit (PCU-PEAG) under the authority of the MEHH. The PCU-PEAG will maintain independent financial management system, use of private auditors. A financial management staff with a great experience in the financial management of development projects and programs and a very good knowledge of World Bank financial management rules and procedures will be recruited.	<b>S</b>



		However, even these mitigation measures do not provide enough evidence that County Level risk can be mitigated.	
<b>Entity Level</b>			
The project involves multiple implementing entities (MEHH, SEG, DATU) and there is a risk of conflict of interest and poor coordination between the implementing entities.	<b>H</b>	The PCU will maintain organizational structure and staffing satisfactory to the World Bank. Any changes in structure or key staffing will require prior World Bank concurrence.	<b>S</b>
<b>Project Level</b>			
The project involves multiple actors, complex works, and high-value contracts with a new implementing entity. There is a risk of ownership and control of the Project.	<b>S</b>	Implementation arrangements that allow close monitoring of activities under the project (including flow of funds) by the Bank should be maintained.	<b>M</b>
<b>Overall Inherent Risk</b>	<b>S</b>		<b>S</b>
<b>CONTROL RISKS</b>			
<b>Budgeting</b> Projects budgets are not captured through the government's budgeting system. The project will be implemented through parallel arrangements rather than relying on country systems.	<b>S</b>	A budgeting system will be established and maintained for the project. Budgeting procedures will be elaborated in the manual of Procedure. The AWPB will be approved by the Steering Comity and the bank. The approved budget will be entered into the accounting system and the execution will be monitored.	<b>M</b>
<b>Accounting.</b> The accounting framework applied has just come into effect. Users are not yet familiar with it. The configuration of the software must also take into account the requirements of this standard.	<b>H</b>	An accounting software will need to be installed and tailored for the project accounting purposes. The FM staff will be trained on the accounting standards and in the use of the software.	<b>S</b>
<b>Internal Controls</b> Internal control of the project needs to be put in place.	<b>H</b>	The PCU will put in place an internal control system capable of ensuring reliable and adequate control over financial management and disbursement processes and procedures. The system will be described in the manual of procedures that will be reviewed by the bank. An internal auditor will be recruited.	<b>S</b>
<b>Fund flows</b> In accordance with the request of the Ministry of Finance, the designated accounts of the projects are opened at the Central Bank. The MEHH is not familiar with the Bank's disbursement procedures.	<b>S</b>	MEHH will recruit financial management staff with experience in Bank disbursement procedures.	<b>M</b>
<b>Financial Reporting</b> The MEHH is not familiar with bank financial reporting requirements	<b>S</b>	The PCU will prepare and submit quarterly an interim un-audited financial report (IFR). The IFRs will be generated automatically by the project's accounting software that will be installed and tailored.	<b>M</b>



<b>Auditing</b> The MEHH is not subject to regular external audits	<b>S</b>	The audit of Project Financial Statements will be carried out by an independent auditor and under Terms of References acceptable to the Bank.	<b>M</b>
<b>OVERALL CONTROL RISK</b>	H		S
<b>OVERALL FM RISK</b>	H		S

H = High, S= Substantial, M=Moderate, L=Low.

### Financial Management Arrangements

- 31. **Implementing Entity and Staffing:** the MEHH will recruit a financial management specialist using an internationally open selection method and based on terms of reference agreed with the Bank, within one month after effectiveness. An accountant and an accountant assistant will also be hired, based on TOR agreed with the Bank, within 2 months after the project effectiveness.
- 32. **Planning and budgeting:** the PCU-PEAG will prepare an initial detailed work plan and budget for implementing project activities over the entire life of the project. Thereafter, the PCU will prepare an updated AWPB annually. The annual budget will be submitted to the Project Steering Committee for approval and thereafter to the IDA for no-objection, not later than November 30 of the year preceding the year of implementation.
- 33. **Accounting and records:** the Tompro multi-project management software will be purchased and configured within 3 months after project effectiveness. The West African Francophone countries accounting standards (SYSCOHADA) for non-profit entities, effective from January 1, 2024, will be applied.
- 34. **Internal control:** the manual of administrative, accounting, and financial procedures has already been prepared and is in the process of reviewing by the Bank. The validated manual must be available within a month of project effectiveness. An internal auditor will be recruited on the basis of terms of reference agreed with the Bank.
- 35. **Financial Reporting:** the PCU will submit a full set of interim unaudited financial reports (IFRs) consolidated for all implementing entities, project components, and sources of funding for each calendar quarter throughout the life of the project. The IFRs will be due 45 days after the end of each quarter. The format of the IFRs should be agreed between the borrower and the Bank.
- 36. **External audit:** a single audit will be carried out for the World Bank and EIB financing which will be implemented in parallel. The audits (each mandate lasting three years) will be financed alternately by the World Bank and the EIB. The annual audit of the Project’s financial statements will be conducted by an independent auditor based on terms of reference acceptable to the World Bank and the BEI, and according to the International Standards on Auditing issued by the International Auditing and Assurance Standards Board of the International Federation of Accountants. The audit report will be submitted to the Bank no later than six months after the end of the audited period. The audited financial statements will be disclosed to the public in compliance with the World Bank Policy on Access to Information.
- 37. **Transparency, accountability, and anti-corruption** efforts will be supported via a complaint handling mechanism, a communication strategy to inform the public through the media about all aspects of the project, and the publication



of audited financial statements. The PCU-PEAG will address fraud and anti-corruption issues in accordance with the World Bank’s Anti-Corruption Guidelines referred to in the Financing Agreement.

ROADMAP FOR PPPs in the Project

38. No PPP/PCM opportunity could be confirmed as part of the scoping and preparation of PEAG (Projet d’Eau et d’Assainissement de Guinée), due to client priorities and the weak enabling environment. As Phase 1 of SDAEPGC<sup>36</sup> investments, PEAG will therefore have no PPP/PCM contents. PEAG is however expected to be MDF-Enabling, through funding of studies to help the preparation and inclusion of potential PPP/PCM activities as part of planned SDAEPGC Phase 2 investments. Table 6 summarized the needed actions to mobilize private sector participation (PSP) over time.

Table 6. Overview of the actions needed to mobilize PSP in water and sanitation in Guinea

Sub-Sector	Roadmap Actions (IPF effectiveness)					
	Due Diligence Required	By When/Whom	Policy & Legal Due Diligence/Program Support	Technical, E&S & Commercial Due Diligence	Financial Due Diligence	Market Assessment
1. General	1. Compile results from previous World Bank urban water program (P157782): -Master Plan -SEG financial model -Tariff study -Sector Legal framework and Policy  2. Review other donors’ interventions and connection with potential PCM/ World Bank current program – identify gaps for PCM/ PCE	Done by World Bank team as part of PEAG prep (Phase 1 SDAEPGC, with <b>NO PPP/PCM</b> )	YES	YES	YES	NO

<sup>36</sup> SDAEPGC: Schéma Directeur d’Alimentation en Eau Potable du Grand Conakry, or Greater Conakry Water Supply Masterplan



<p>2. <b>Yessoulou 4 WTP</b></p>	<p>Compile technical information on proposed projects</p> <p>Review of Feasibility Study done on YESSOLOU 4 esp. technical, finance, E&amp;S</p> <p>Upstream discussion with international players active in West Africa on desirability</p>	<p><b>DONE by the World Bank team</b>, towards Design-Build contracting.</p> <p><b>NO PPP/PCM)</b></p>	<p>PPP processing framework and adequacy</p> <p><b>NOT ASSESSED / NOT RELEVANT AS NO PPP/PCM FOR YESSOLOU 4</b></p>	<p>Technical options, E&amp;S <b>ASSESSED.</b></p> <p>Commercial scoping <b>NOT ASSESSED</b></p>	<p>PPP Model project financials.</p> <p><b>NOT APPLICABLE</b></p>	<p>Market sounding</p> <p><b>NOT APPLICABLE AS IT WILL BE AN EPC</b></p>
<p>3. <b>SEG operational and commercial performance turnaround</b></p>	<p>Assess legal requirements/restrictions on borrowing</p> <p>Assess funds flows</p> <p>High level financial performance assessment &amp; FCF</p>	<p><b>IN PART DONE by World Bank team towards implementation of Performance-Based NRW-reduction contracts</b></p>	<p>Depending on Pre-Decision Review Meeting DD, update laws &amp; policies on SEG.</p> <p><b>ONGOING (STRATEGY ON URBAN WATER FINALIZED AND DRAFT POLICY UNDER REVIEW)</b></p> <p>Tariff reform and other revenue mobilization. <b>ASSESSED &amp; COMMITTED</b></p>	<p>Update masterplan? <b>DONE</b></p> <p>Develop 5-year investment plan <b>PARTIALLY DONE through SDAEPGC, but network renewals to be defined by NRW study.</b></p> <p>Performance improvement intervention. <b>NEMA PROGRAM TA</b></p> <p>Define options for commercialization and access to commercial</p>	<p>Full FM audit for last 3 years and provide recommendations for improving FM. <b>PARTLY AVAILABLE THROUGH MULTI YEAR PUEG REPORTING.</b></p> <p>Consider a credit rating exercise. <b>TOO SOON FOR RELEVANCE</b></p>	<p>Define security structures.</p> <p><b>N/A</b></p>



				finance. <b>SEG NOT READY</b>		
4. <b>Fecal Sludge Treatment (FSTP) and Disposal facilities</b>	Understand where disposal currently  Identify optimal location  Conduct preliminary sizing/scoping of FSTP	<b>NOT DONE.</b> Feasibility Study to be conducted as part of PEAG implementation.	Develop collection zoning regulations  Develop enforcement mechanism	Design FSTP  Develop FSTP business plan/financial model  PPP options	Conduct willingness to pay	
5. <b>Fecal sludge collection service</b>	Assess numbers & coverage, performance, asset conditions and financial status of existing providers  Understand regulatory environment	<b>NOT DONE.</b>  Study to be completed under PEAG	As above	Develop business model potentially bundled with FSTP operator	Understand willingness to invest in upgrade, willingness to partner with FSTP operator	
6. <b>Other WTP outside Conakry</b>  <b>NOT A PRIORITY under PEAG preparation scope.</b>	Compile technical information on proposed projects. <b>NOT AVAILABLE</b>	<b>NOT DONE.</b> Outside of PEAG scope. Low probability of WTP PPPs outside Conakry.		Develop technical options, E&S and commercial scoping	Model project financials including bundling to determine best options for transactions structure	Formal market sounding when transactions & procurement design is available  Review potential financing & funding sources .
6. <b>Yessolou 5 WTP (under Phase 2)</b>	Compile technical information on proposed projects. <b>NOT AVAILABLE</b>	<b>TO BE DONE BY SEG UNDER PEAG.</b> <b>Component 3 budget to conduct FS, and PPP design. Hiring of</b>	PPP processing framework and adequacy	Technical options, E&S Commercial scoping	PPP Model project financials	Market sounding



<p><b>Plausible PPP scope:</b> <b>Yessoulou 5 BOT, with possible Yessoulou 1, 2, 3 and 4 O&amp;M contracts</b></p>	<p>Review any 'feasibility study done on these plants: especially technical, finance, E&amp;S. <b>NOT AVAILABLE.</b></p> <p>Upstream discussion with international players active in W. Africa on desirability.</p>	<p><b>a transaction advisor to be considered / IFC involvement (PPP transaction advisory – CTA and IFC Infra Investment/Upstream)</b></p> <p><b>INITIATED BY GoG</b></p>				
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**ANNEX 4: OVERVIEW OF IMPLEMENTATION ARRANGEMENTS**

The table below provides a brief summary of the roles and responsibilities for implementation of project activities.

**Table 1. Overview of responsibilities for project components**

Areas of Intervention	Entity Blue = primary	Expected role and responsibilities
Overall implementing entity	<b>MEHH</b>	<ul style="list-style-type: none"> <li>• Implementation of all project activities on behalf of the government.</li> <li>• The PCU will report to the MEHH, and key staff will be recruited by the MEHH through an international HR firm.</li> </ul>
All components	Steering Committee	<ul style="list-style-type: none"> <li>• Will be under the aegis of MEHH although it will be composed of multiple ministries, implementing agencies and the PCU.</li> <li>• Reviews and approves the annual program of work and budget.</li> <li>• Provides strategic guidance on all components</li> </ul>
All components	<b>PCU/ SEG</b>	<ul style="list-style-type: none"> <li>• Responsible of the project management including fiduciaries activities</li> <li>• PCU will coordinate with different stakeholders involved in the activity, including MEHH, MUHAT, MEEF, SEG, DATU, AREE, construction firms, supervision firms, panel of experts, local authorities, residents and others.</li> <li>• The PCU will handle all environmental and social aspects and ensure compliance with the ESF instruments and associated plans.</li> <li>• The PCU will conclude a collaboration agreement with SEG, DATU and OF for the implementation of their respective components</li> <li>• The PCU will be responsible for overseeing the implementation of the project and preparing project implementation reports.</li> </ul>
<b>Component 1: Increasing and improving water service in Greater Conakry US\$435 million, of which EIB-EU US\$255 million, IDA US\$165 million and GoG US\$15 million)</b>		
<b>Component 1.1</b> Increasing water production through a new treatment plant US\$267 million (US\$99 million IDA and US\$168 million EIB-EU)	<b>PCU/ SEG</b>	<ul style="list-style-type: none"> <li>• SEG which will be responsible for the management and coordination of the technical aspects.</li> <li>• SEG will contribute to the implementation of the environmental and social instruments, including those related to civil works, occupational health and safety, labor management and grievance redress.</li> <li>• SEG will operate and maintain the systems once they have been completed</li> <li>• SEG will be benefiting technical assistance firm from the international project managing firm.</li> <li>• The PCU will support the SEG as needed in this sub-component</li> </ul>



<p><b>Component 1.2</b> Storage tanks and distribution system (US\$130 million (US\$28 million IDA, US\$87 million EIB-EU and US\$15 million GoG)</p>	<p>PCU/ <b>SEG</b></p>	<ul style="list-style-type: none"> <li>• As for component 1.1</li> </ul>
<p><b>Component 1.3</b> Non-revenue water (NRW) reduction (\$25 million– IDA only)</p>	<p>PCU / <b>SEG</b></p>	<ul style="list-style-type: none"> <li>• As for component 1.1</li> </ul>
<p><b>Component 1.4</b> Compensation of PAPs (\$13 million – IDA only)</p>	<p>PCU/ <b>SEG</b></p>	<ul style="list-style-type: none"> <li>• PCU will be responsible of this component</li> <li>• PCU will work closely with the <i>Commission National de l’indemnisation</i> to ensure the compensation in compliance with the policies.</li> </ul>
<p><b>Component 2. Support to Water Sector Performance, and Institutional and Policy Reforms (\$24 million – IDA only)</b></p>		
<p><b>Component 2.1</b> Support to the implementation of urban water sector reforms (\$2 million - IDA only)</p>	<p>PCU/ <b>MEHH</b></p>	<ul style="list-style-type: none"> <li>• PCU will be responsible for this component working with MEHH officials. SEG and AREE will provide technical inputs.</li> </ul>
<p><b>Component 2.2</b> Support to SEG utility strengthening and turnaround program (\$10 million - IDA only)</p>	<p>PCU/ <b>SEG</b></p>	<ul style="list-style-type: none"> <li>• This component will be implemented as part of SEG’s collaboration agreement with the PCU</li> <li>• The PCU will provide administrative support to SEG and will also handle all procurement and fiduciary aspects.</li> <li>• SEG will have technical control of the goods, equipment and services procured under this component.</li> </ul>
<p><b>Component 2.3</b> Support to sanitation governance arrangements (IDA \$2 million - IDA only)</p>	<p>PCU / <b>DATU</b></p>	<ul style="list-style-type: none"> <li>• PCU will implement this component with a dedicated team within the National Directorate of Land Use Planning and Urban Development (DATU)</li> <li>• DATU’s team will handle all aspects of institutional reform of the urban sanitation sector, including technical development of the studies for the creation of the National Sanitation Office</li> <li>• A specialized firm will be hired for technical assistance to the DATU</li> <li>• The PCU will provide administrative support to DATU and will also handle all procurement and fiduciary aspects.</li> </ul>
<p><b>Component 2.4</b> Water, sanitation and</p>	<p>PCU / <b>DATU</b></p>	<ul style="list-style-type: none"> <li>• The PCU will lead the implementation of this component in collaboration with the Ministry of Education and the National Directorate of Water and Sanitation to ensure effective integration of WASH facilities in schools.</li> </ul>



<p>hygiene (WASH) in schools (IDA \$10 million)</p>		<ul style="list-style-type: none"> <li>• The DATU will oversee the identification of priority schools, coordinate with local education authorities, and ensure alignment with national education policies.</li> <li>• A technical firm will be hired to design and supervise the construction/rehabilitation of school WASH facilities, including latrines, handwashing stations, and safe drinking water points.</li> <li>• The PCU will handle all procurement, financial management, and monitoring aspects, ensuring compliance with national and donor requirements.</li> </ul>
<p><b>Component 3. Enhancing water resources management in selected areas (\$11,262,000, of which \$9,262,000 GEF and \$2,000,000 IDA)</b></p>		
<p><b>Component 3.1</b> Nature-based solutions (NBS) to control soil erosion and reservoir sedimentation (\$8 million - GEF)</p>	<p>PCU /OGPNRF</p>	<ul style="list-style-type: none"> <li>• PCU will implement the component (administration, procurement, fiduciary, M&amp;E) and the <i>Office Guinean des Parcs Nationaux et Réserves de Faune</i> (OGPNRF) will be the lead technical agency.</li> <li>• DNH will be a collaborating partner on technical matters</li> <li>• A collaboration agreement will be signed between OGPNRF, DNH and the PCU.</li> </ul>
<p><b>Component 3.2</b> Community engagement for sound water resource management (\$1,262 million - GEF)</p>	<p>PCU /DNH</p>	<ul style="list-style-type: none"> <li>• PCU will implement the component (administration, procurement, fiduciary, M&amp;E) and DNH will be the main technical agency.</li> <li>• Ensure that increased upstream water supply withdrawals are fully understood by these downstream stakeholders and are adequately integrated with agricultural demands.</li> <li>• Involved Upstream users in water quality initiatives</li> <li>• This committee will include the DNH, SEG, EDG, municipalities, water associations and the private to ensure broad stakeholder participation.</li> </ul>
<p><b>Component 3.3</b> Protection perimeters for water supply boreholes (\$2 million - IDA)</p>	<p>PCU/ DNH</p>	<ul style="list-style-type: none"> <li>• PCU will be responsible for implementation and DNH will be the lead technical partner.</li> <li>• The PCU will provide administrative support to DNH and will handle all procurement and fiduciary aspects.</li> </ul>
<p><b>Component 4. Project Implementation Support (US\$28,830,000 – of which US\$19 million EIB-EU, US\$ 9 million IDA and US\$830,000 GEF)</b></p>		
<p><b>Component 4.1</b> US\$26,480,000 – of which US\$19 million EIB-EU, US\$7 million IDA and US\$480,000 GEF)</p>	<p>PCU</p>	<ul style="list-style-type: none"> <li>• Preparing and launching procurement documents for activities</li> <li>• Managing the program of work and budget for all activities</li> <li>• Managing the operating costs of the Steering Committee and supporting its work</li> <li>• Monitoring and evaluation of project activities; reporting and communications on project activities.</li> <li>• Managing the independent verification agency for the PBCs</li> </ul>
<p><b>Component 4.2</b> Technical Assistance to Implementation</p>	<p>PCU</p>	<ul style="list-style-type: none"> <li>• Supporting the implementing agencies in charge of the project execution under the supervision of the Coordination Unit (PCU)</li> </ul>



Agencies (US\$3,35 million (US\$3,000,000 IDA; US\$350,000 GEF)		
<b>Component 5. Contingency Emergency Response Component (\$0 million)</b>		
<b>Component 5 CERC (\$0)</b>	PCU	<ul style="list-style-type: none"><li>• Responsible for applying the CERC if needed, supported by the PCU</li></ul>



## ANNEX 5: POLICIES, INSTITUTIONS AND REGULATIONS (PIR) ROADMAP

### Policy, institutions and regulatory (PIR) roadmap support by PEAG

1. After 15 years of stagnation in water investments, Guinea is on the cusp of a significant influx of financing for infrastructure that will address the wide gap in water production and services in Greater Conakry. However, mobilizing the financing needed for key infrastructure is only one part of the solution – equally as crucial are the policy, institutional and regulatory (PIR) reforms that will accompany infrastructure investments to maximize service impacts and ensure the sustainability of the interventions. Lessons learned from global experience in the water sector highlights key principles to respect in undertaking the kinds of PIR reforms envisaged under PEAG, including the need for an incremental approach; taking a long-term horizon; considering all service delivery models and actors – not only formal entities; focusing on the governance and capacity of sector regulators; and including water resources as the foundation for sustainability (Box 1). This note explains the PIR initiatives planned under PEAG and their expected impacts over the short, medium, and long term.

#### **Box 1. Overview of Policies, Institutions and Regulation (PIR) for Water and Sanitation Services: a World Bank Water Initiative**

The World Bank launched the PIR initiative in 2016 as a new approach to water sector reform. Previous efforts to address water and sanitation challenges had focused predominantly on infrastructure and technical solutions, but their impacts were limited because of the lack of attention paid to governance factors. The World Bank’s Water Global Practice articulated the PIR framework as a response to this missing link for water and sanitation service, first articulated in a seminal study, *Aligning Institutions and Incentives for Sustainable Water Supply and Sanitation Services* (Mumssen et al, World Bank, 2018)\*. This initial conceptual framework posited that integrated policy, institutional, and regulatory interventions can help align incentives for more sustainable water supply and sanitation service delivery. It also laid general principles for identifying PIR reforms, including the importance of:

- A holistic approach;
- Best fit rather than best practice; and
- Incrementalism.

An updated volume, *Policies, Institutions and Regulations: Adapting to a Changing World* (World Bank, 2022)\*\* reflected on the emerging pressures and opportunities – in light of the COVID 19 pandemic, climate change and its call for a shift towards long-term planning and sustainability; the rapid pace of technological development and demographic shifts, among others - that are shaping how PIR can support water sector reforms. The main messages from Phase 2 of the PIR initiative – which was based in part on the application of the PIR framework in World Bank financed operations all over the world – can be summarized as follows:

- Understanding the PIR context of water and sanitation provision is a pre-condition for all other efforts to achieve meaningful and sustainable water and sanitation outcomes;
- Progress in achieving meaningful PIR reforms starts with a rigorous assessment of the root causes of WSS service bottlenecks; and
- PIR reforms are long-term in nature and require mechanisms that foster evaluation, learning and adjustment.



The PIR roadmap to be applied under PEAG is based on the PIR framework and Guinea’s experience with water and sanitation reforms will in turn draw lessons for other countries seeking to undertake similar reforms.

\* <https://openknowledge.worldbank.org/entities/publication/9c22a08e-a297-523a-8a1d-f8055ffc9297>

\*\* <http://documents.worldbank.org/curated/en/099015108242285094/P1655860db0aba087088a10a0f5538b24c5>

2. Consistent with GoG policy priorities<sup>37</sup>, and in addition to financing SDAEPGC Phase 1 investments, PEAG aims to support and achieve a significant strengthening of Guinea’s water sector institutional framework. Such strengthening will primarily focus on the urban water supply and urban sanitation subsectors, while also addressing selected water resources management needs. Key elements and timeline of such an institutional roadmap are summarized in Table 1 and Fig. 1 below.

3. **Urban water supply:** GoG with IDA and AfD support through PUEG developed a set of tools and analytics that will be implemented under PEAG. Through 2023 with PUEG support, PEAG will enable the establishment of capacities and regulatory mechanisms to ensure the turnaround of SEG’s performance towards improved service delivery and financial sustainability.

4. *At the operational level*, beyond infrastructure investments, PEAG will enact a comprehensive strengthening of SEG’s commercial and management capacities under its NEMA program<sup>38</sup>, with program and systems implementation supported by dedicated TA. SEG will also benefit from a clear tariff indexation and adjustment policy, as well as a one-time recapitalization to shore-up its financial outlook. *At sector governance level*, strategic strengthening steps include the establishment of a 5-year Performance Contract between GoG and SEG to establish mutual commitments, responsibilities and targets for service delivery and utility turnaround, such as pertaining to service coverage, service quality, cost-recovery gains, as well as investment and tariff requirements. The sector will also benefit from an overhaul of the role and capacities of AREE<sup>39</sup>, the power and water regulator, with the view to enhancing accountability, transparency and collaboration on sector performance. AREE will be able to ensure technical assessments of service quality and utility performance as well as validate recommended tariff adjustments.

5. The combined operational and governance interventions will create a virtuous cycle, in which SEG's infrastructure, services and governance arrangements will be strengthened. Figure 1 illustrates and Table 1 provides the reform roadmap for all the PIR reforms planned under PEAG

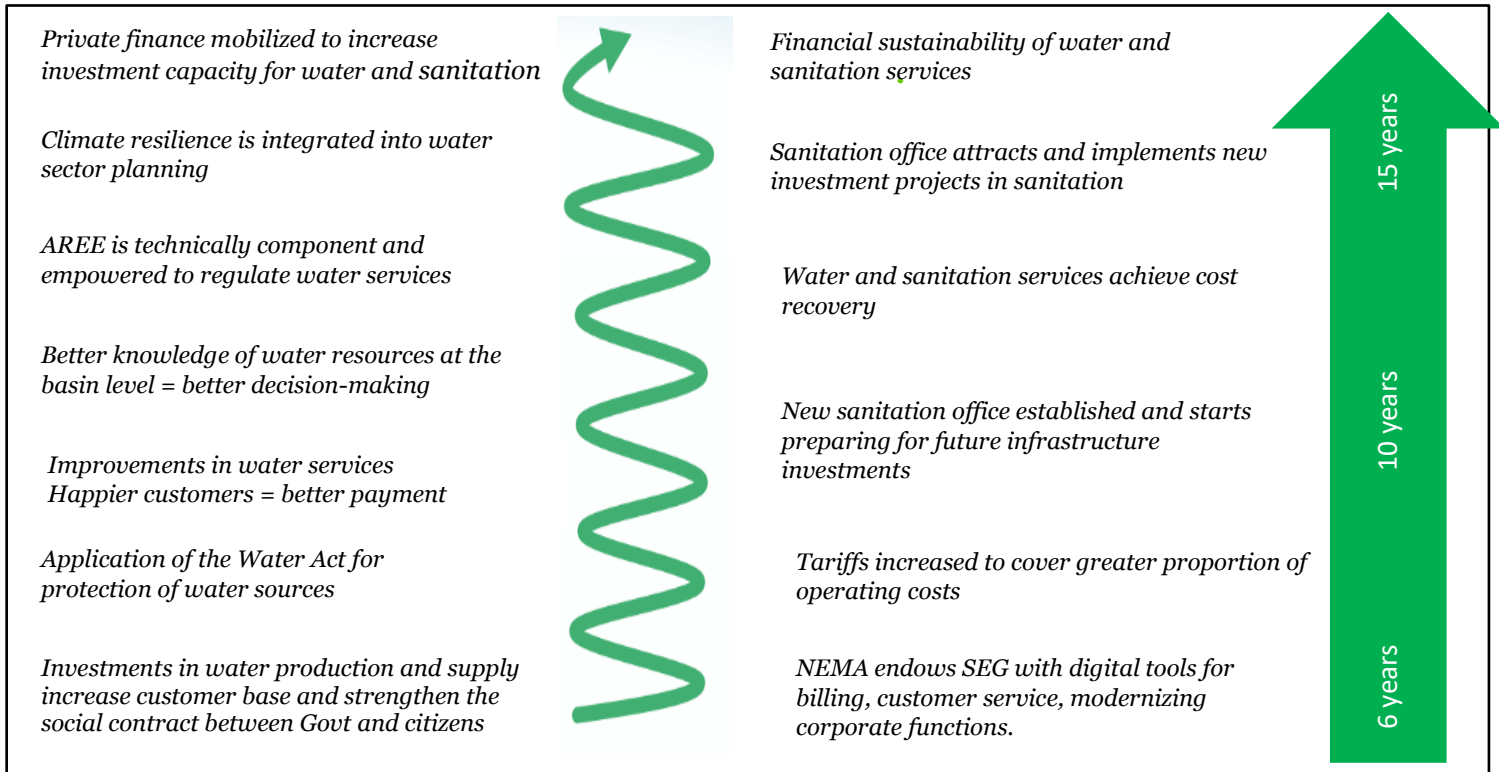
<sup>37</sup> Sector policy letter, urban water and sanitation masterplans, water sector financial modelling and tariff study, among other.

<sup>38</sup> Including the optimization of billing and collection functions based on the newly-installed system, SEG’s new financial projection model, GIS and computerized maintenance management system, etc.

<sup>39</sup> AREE: Agence de Régulation de l’Eau et de l’Électricité



Figure 1. Creation of a virtuous cycle of sector reforms expected under PEAG



6. Last but not least, important urban water sector capacity shifts can also be expected through the pursuit of public-private partnerships opportunities, that PEAG-funded studies may help prepare. GoG has clearly stated an intent to mobilize PPPs for the implementation and at least partial financing of selected Phase 2 SDAEPGC investments (e.g. Yessoulou 5, network expansions, ...), for which PEAG could support preparation steps, including towards envisioned Build-Operate-Transfer (BOT) transactions. The opportunity also exists for GoG to plan potential O&M service delegation PPPs<sup>40</sup> in the event SEG’s capacity and performance progress proves insufficient after a few years (indicatively year 4 of PEAG implementation), and a decisive performance improvement is needed to commit Phase 2 investments.

7. **Urban sanitation.** With regards to urban sanitation, taking stock of the weak institutions in place, PEAG will support GoG’s plans to overhaul and consolidate institutional roles and capacities towards feasible enactment of a sector development strategy. This will include the establishment of a National Sanitation Office (ONAG)<sup>41</sup> or similar entity to lead sector development and service delivery, with clearly assigned role, objectives, and budgets. A particular challenge in defining ONAG’s roles, will be to avoid conflicts between policymaking, planning, implementation, service delivery, and regulatory functions. While ONAG may be directly in charge of service delivery and infrastructure development, it could over the medium to long-term develop some infrastructure like wastewater treatment plants as PPPs.

8. Regarding **Water Resources Management**, the project will pilot the establishment of a Basin Committee in the Konkouré basin as a foundational governance structure under the Water Act. This committee will bring together key stakeholders, including the *Direction Nationale de l’Hydraulique* (DNH), SEG, EDG, municipalities, local water user

<sup>40</sup> In the form of management contracts, affermages or concessions

<sup>41</sup> ONAG: Office national d’assainissement de Guinée



associations, and private sector representatives, to coordinate water allocation and ensure that increased upstream withdrawals are aligned with downstream agricultural and ecological needs. Moreover, the project will support DNH with the resources, training and knowledge that will make it able to manage water resources, collaborate with scientific and academic partners and integrate climate resilience into decision-making for water security.

9. The conditions for implementing Integrated Water Resources Management (IWRM) in Guinea are not yet fully developed. PEAG will support the authorities in establishing the necessary enabling conditions for IWRM. This will be done by setting up a basin-level committee to develop a water resources assessment and a basin profile in a participatory way with water users. Moreover, intra-governmental coordination will be enhanced through collaboration on NBS, with DNH and the National Park Agency (OGPNRF) working together on the intersection of water security improvements and natural conservation. Portions of the Samou watershed will be integrated into the Gangan National Park, enabling OGPNERF to oversee ecosystem restoration, enforce the Water Act, and ensure sustainable land and water use. Additionally, “immediate” and “close” protection perimeters will be established for boreholes supplying Greater Conakry, serving as a pilot for governance practices that secure catchment areas and mitigate pollution risks, with institutions like SEG actively involved in their sustainable management. This initiative is groundbreaking, as very few countries in Sub-Saharan Africa have successfully implemented legal provisions for protection perimeters despite having them in their water laws, positioning Guinea as a pioneer among its peers.



**Table 1. Policies, institutions and regulation (PIR) Roadmap Supported by PEAG**

	<b>Selection of expected achievements at the end of project implementation, mid-term, and longer term.</b>				
	<b>Institutional reforms</b>	<b>2024 (Baseline)</b>	<b>2029 (short-term)</b>	<b>2035 (medium-term)</b>	<b>2040 (long term)</b>
<b>General policy level</b>	<ul style="list-style-type: none"> <li>• Implementation of the new tariff policy</li> <li>• Adoption of the State-SEG Concession contract and a new Performance contract</li> </ul>	<ul style="list-style-type: none"> <li>• No renewed concession contract SEG-GoG</li> <li>• Outdated Water Law.</li> </ul>	<ul style="list-style-type: none"> <li>• Concession contract approved clarifying mutual obligations.</li> <li>• Tariff adjustment mechanism implemented</li> <li>• PPPs under preparation <b>completer</b></li> </ul>	<ul style="list-style-type: none"> <li>• Key water and sanitation infrastructure developed as PPPs;</li> <li>• Operational cost recovery from tariffs.</li> </ul>	
<b>Urban water sector institutional strengthening</b>	<ul style="list-style-type: none"> <li>• Organizational and operational reform of SEG, including:</li> <li>• Operationalization of the NEMA utility turnaround programme</li> <li>• Customer orientation, including communication and brand management</li> <li>• Use of performance-based contracts to enhance technical operations.</li> </ul>	<ul style="list-style-type: none"> <li>• Operational cost coverage: 60percent</li> <li>• NRW: 49percent</li> <li>• Incomplete asset inventory</li> <li>• Revenues from digital channels: 25percent</li> <li>• Metered connections: 77percent</li> <li>• Input based contracts for leakage reduction and network improvements</li> </ul>	<ul style="list-style-type: none"> <li>• Operational cost coverage: 85percent</li> <li>• NRW: 35percent</li> <li>• Revenues from digital channels: 50percent</li> <li>• Metered connections: 85percent</li> <li>• Transactions for PPPs for water infrastructure (Yessoulou V, others...)</li> <li>• Secondary cities with water infrastructure developed as BOTs</li> </ul>	<ul style="list-style-type: none"> <li>• Operational cost coverage:100percent</li> <li>• NRW: 30percent</li> <li>• Revenues from digital channels: 70percent</li> <li>• Metered connections: 100percent</li> <li>• PPPs in major cities.</li> <li>• Commercial financing for water infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Operational cost coverage:100percent</li> <li>• Metered connections: 100percent</li> <li>• Use of performance-based instruments for water infrastructure.</li> <li>• Private capital mobilized for water investments.</li> </ul>
<b>Sanitation Sector reforms</b>	<ul style="list-style-type: none"> <li>• Establishment of a national sanitation office</li> <li>• Capacity building program for the sanitation office’s staff</li> <li>• Adoption of its first performance contract</li> </ul>	<ul style="list-style-type: none"> <li>• No contract in place.</li> <li>• Number of approved emptiers (licenses): 0</li> <li>• A Ministerial Department manages sanitation</li> </ul>	<ul style="list-style-type: none"> <li>• National sanitation company (ONAG) established</li> <li>• State-ONAG Concession contract and a new performance contract adopted</li> <li>• Emptiers are well regulated</li> </ul>	<ul style="list-style-type: none"> <li>• ONAG able to develop and manage sanitation assets</li> <li>• Wastewater infrastructure developed as PPPs</li> <li>• Safe disposal of fecal sludge</li> </ul>	<ul style="list-style-type: none"> <li>• Private capital mobilized for wastewater infrastructure</li> </ul>



			<ul style="list-style-type: none"><li>• Preparation of preliminary studies for potential PPPs and PCM for future investments</li></ul>		
<b>Basin-level management of water resources</b>	<ul style="list-style-type: none"><li>• Participatory mechanisms for WRM in the Samou sub-basin</li><li>• Strengthening the capacity of the national parks to protect natural resources inc. water</li><li>• Establishment of a basin committee to pilot water resources management in a participatory way</li></ul>	<ul style="list-style-type: none"><li>• No protection perimeters for boreholes</li><li>• Area benefiting from improved conservation and water management techniques:0</li><li>• No climate funds in the water sector</li></ul>	<ul style="list-style-type: none"><li>• Protection perimeters: 5</li><li>• Area benefiting from improved conservation and water management techniques: 1500</li><li>• Water Code revised and its application decrees are being applied</li><li>• IWRM piloted at basin level</li><li>• Sector officials understand climate finance</li></ul>	<ul style="list-style-type: none"><li>• Protection perimeters become standardized</li><li>• Basin plan developed and financing mobilized.</li><li>• IWRM becomes mainstreamed nationally</li><li>• Guinea using climate financing for climate adaptation needs</li></ul>	<ul style="list-style-type: none"><li>• IWRM is fully developed, with climate funds mobilized for water security and sanitation.</li></ul>



## ANNEX 6: GENDER ANALYSIS & ACTION PLAN

### Context

1. **Guinean women live in one in the poorest countries in Sub-Saharan Africa and they also suffer from particularly high gender gaps compared to regional averages.** For example, only 31percent of girls complete secondary education compared to 29percent of boys (compared with 43percent and 46percent in Sub-Saharan Africa).<sup>42</sup> As for economic opportunities, the gender gap in labor force participation has increased dramatically since the early 2000s: from less than 4 percentage points in 2001 (62.7percent vs. 66.3percent), to more than 21 percentage points in 2022 (42.4percent vs. 63.7percent), while the regional average stagnated around 12 percentage points. Ownership and use of economic assets is low with as much as 67percent of women not owning a house compared with 51percent of men. Finally, only 30percent of women participate in making major decisions in the household.

2. **In Guinea, the chore of fetching water falls mainly on girls and women.** According to the results of the Harmonized Household Survey on Living Conditions (EHCVM, 2019), in Conakry, 73.6 percent of households have access to drinking water in less than 15 minutes, compared with 26.4 percent in more than 15 minutes. This proportion varies depending on the household's area of residence. Only 70.9 percent of urban households have access to water in the normal time (15 minutes), compared with 29.1 percent of households with longer access times. Analysis of the data shows that housework is the most time-consuming activity for Guineans. On average, Guineans spend 1.9 hours per week fetching water, which averages to 8 hours per month and women bear the burden, which affects them negatively. When women and girls must travel far to collect water from public standposts or water vendors, they have less time for school attendance or for their livelihoods.<sup>43</sup> Poor quality and availability of water also compounds the negative effects of poverty and vulnerability for low-income, female-headed households.<sup>44</sup>

3. **A critical gender gap exists in Guinea's water and sanitation sector, particularly regarding women's access to technical jobs.** While women are often responsible for water collection, they are underrepresented in the very institutions that manage this vital service. As part of project preparation, SEG responded to a survey developed by Equal Aqua, a platform developed by the World Bank to promote gender diversity in water institutions.<sup>45</sup> The objective of the survey was to identify the role of women in the functioning of the water utility. The survey found that women make up 17 percent of the overall workforce and are equally underrepresented in technical positions (Table 4.1). While women make up 31 percent of management in SEG, they are still below gender parity. The findings of the survey showed that women make up 17 percent of SEG's workforce, which puts the utility on par with the global average of 18 percent.<sup>46</sup> The challenge of getting greater representation of women stems in part from the limited pipeline i.e. there are not as many young women studying science, engineering or other technical fields at a tertiary level. Practical, financial, and cultural reasons hinder

<sup>42</sup> Source: 2022 data from [genderdata.worldbank.org/en/economies/guinea](https://genderdata.worldbank.org/en/economies/guinea).

<sup>43</sup> A World Bank feature story illustrates well the personal toll on girls from having to fetch water regularly: <https://www.worldbank.org/en/news/feature/2024/04/22/once-we-have-water-we-have-life-access-to-safe-drinking-water-transforms-lives-in-conakry>.

<sup>44</sup> Source: "Water, Well-Being, and the Prosperity of Future Generations, World Bank 2024". <https://openknowledge.worldbank.org/entities/publication/25748b60-0645-566d-9290-6c02965e0275>

<sup>45</sup> See more about Equal Aqua here: <https://www.worldbank.org/en/topic/water/brief/inclusive-water-institutions-platform>

<sup>46</sup> According to the World Bank report "Women in Water Utilities: Breaking Barriers," the average share of women in water utilities globally is less than 18percent. Source: <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/166011566504966480/breaking-barriers-executive-summary>



women's access to technical studies, limiting their career prospects. There are similar challenges in the regulation and sanitation sub-sectors. For example, in AREE, there are only 3 women out of a total of 15 employees (20 percent of the staff) and none of these are managerial. As for the sanitation, there are huge discrepancies within DATU between men and women. Out of a total of 22 civil servants, only 3 are women (14 percent of the staff). Within SEG, while gender focal points are appointed and some individual initiatives are undertaken at team level to encourage women’s career development, the utility does not have a gender strategy or specific gender considerations in it human resources policy.

Table 4.1. Composition of SEG Staff by Sex

Job Category	Sex	Number of personnel	percent male of female
Overall	Men	768	82
	Women	167	17
Managers	Men	38	69
	Women	17	31
Engineers/ technical staff	Men	19	82,61
	Women	4	17,39
Other	Men	711	83.55
	Women	140	16.45

4. **Gender dynamics are also at play for water resources management.** In the Konkoure basin and Samou sub-basin, there are strong gender gaps which determine land control, agricultural practices, entrepreneurship and communities’ livelihoods. Failing to take these gaps into account could endanger efforts made to enhance water resources management and conservation efforts in the Gangan National Park. Some of the key drivers of pollution, soil degradation and deforestation are due to women’s economic insecurity – especially lack of land titles and few opportunities for entrepreneurship), which pushes them to resort to unsustainable agroforestry practices.

5. **A gender action plan and indicators will be implemented under PEAG.** A PDO indicator is proposed on “Average time spent by women and girls collecting water in a typical month”, in view of the improvements in piped water supply and household connections, which would ease the burden on women having to fetch water from other sources. In addition, PEAG aims to boost the proportion of female technical employees in water and sanitation. It sets a goal of increasing from an average of 17percent (SEG, AREE and DATU) to 51percent to help address the gender gap in technical roles within the water and sanitation sector. To achieve this, PEAG will implement a series of targeted actions:

- **Internship program:** Support young women pursuing technical studies related to water and sanitation to foster a pipeline of qualified female talent.
- **Training workshops:** Equip women with the necessary skills for lower-skilled technical jobs, ensuring they are well-prepared for employment.
- **Success stories:** Highlight the achievements of women in the sector to challenge societal stereotypes and inspire future generations.
- **Awareness campaigns:** Organize events and campaigns to raise awareness about the benefits of gender equality in the water and sanitation sector and encourage women's participation.



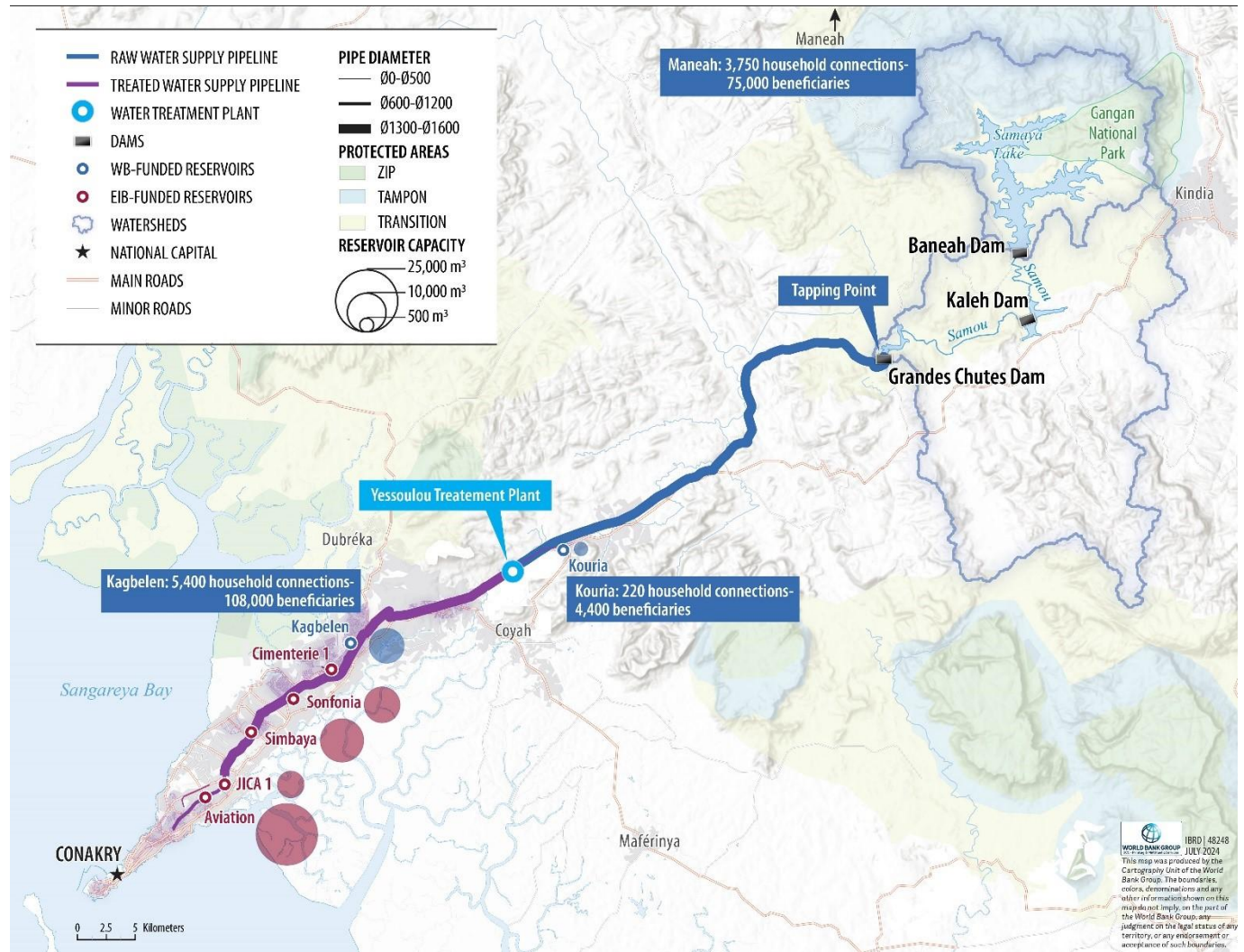
6. Lastly, PEAG will leverage the NBS component to ensure that women are offered job opportunities and training on the conservation activities planned in the Samou Basin. NGOs will be hired to work with local communities in the basin, and their terms of reference will be drafted to ensure they enhance livelihoods opportunities for women in the area.
  
7. In addition to the PDO on time spent fetching water, additional indicators (non PDO) will be tracked as part of the monitoring and evaluation system of the project, even if they are not part of the project's official results framework.
  - Number of women in engineering positions at SEG. Baseline 4 women out of 23 (representing 17 percent of engineers); Target: 16 women engineers (reaching 51 percent of 31 engineers)
  - Number of women in senior managerial role at SEG Baseline 4 out of 22 in SEG Management Committee; target 7 more women (i.e. reaching 51 percent of managerial roles)
  - As an attached indicator to the current *"Young people benefiting from professional opportunities in water institutions (Number)"*, an indicator "among which, minimum share of women: 51 percent".



**ANNEX 7: PROJECT MAPS**

1. The maps that follow illustrate the total project areas (Figure 1) particularly for water investments under Component 1, as well as a deeper focus on the water resources management and NBS activities (Component 3) funded by GEF and IDA (Figure 2).

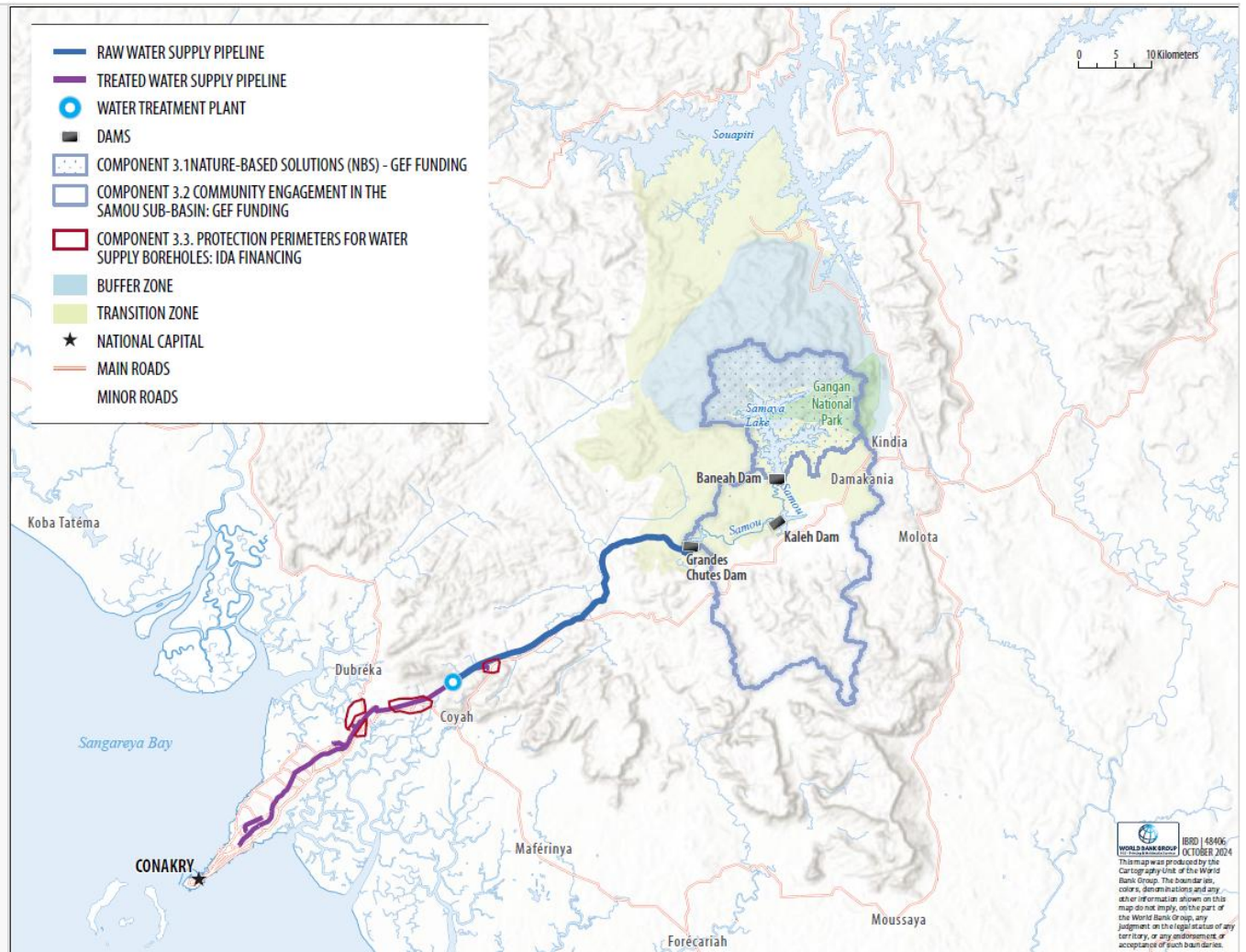
**Figure 1. Overview of the project area**



Cleared by Cartography Department, 5 March 2025



**Figure 2. Overview of the WRM and NBS Components**



Cleared by the Cartography Department on 5 March 2025.