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INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT PAPER

ON A

PROPOSED ADDITIONAL CREDIT AND A RESTRUCTURING

IN THE AMOUNT OF SDR 19.1 MILLION
(US\$25 MILLION EQUIVALENT)

FROM THE IDA CRISIS RESPONSE WINDOW

TO THE

ISLAMIC REPUBLIC OF MAURITANIA

FOR THE

DECENTRALIZATION AND PRODUCTIVE INTERMEDIATE CITIES SUPPORT PROJECT

November 6, 2023

Urban, Resilience, and Land Global Practice
Western and Central Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective September 30, 2023)

Currency Unit = Special Drawing
Rights (SDR)

US\$1= 0.76046784

FISCAL YEAR

January 1 - December 31

Regional Vice President: Ousmane Diagana

Country Director: Keiko Miwa

Regional Director: Chakib Jenane

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Task Team Leaders: Nahida Sinno, Jonas Ingemann Parby

ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
AFD	French Development Agency (<i>Agence Française de Développement</i>)
BAU	Business as Usual
CCDR	Country Climate and Development Report
CERC	Contingent Emergency Response Component
CRW	Crisis Response Window
DA	Designated Account
E&S	Environmental and Social
ESCP	Environmental and Social Commitment Plan
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESRS	Environmental and Social Review Summary
ESS	Environmental and Social Standards
FM	Financial Management
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GoM	Government of Mauritania
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
HRM	Human Resource Management
IDA	International Development Association
IFR	Interim Financial Report
ISR	Implementation Status and Results Report
LG	Local Government
LiDAR	Light Detection and Ranging
MS	Moderately Satisfactory
NBS	Nature-based Solutions
NDC	Nationally Determined Contribution
NPF	New Procurement Framework
O&M	Operations and Maintenance
OHS	Occupational Health and Safety
ONAS	National Office for Sanitation (<i>Office National d'Assainissement</i>)
ORSEC	National Relief Organizational Plan (<i>Plan d'organisation de secours d'urgence</i>)
PCU	Project Coordination Unit
PDO	Project Development Objective
PFM	Public Finance Management
PPSD	Project Procurement Strategy for Development
RF	Results Framework
RPF	Resettlement Policy Framework
SEP	Stakeholder Engagement Plan
SOMELEC	National Electricity Utility (<i>Société Mauritanienne d'Electricité</i>)
SDR	Special Drawing Rights
SWM	Solid Waste Management
TA	Technical Assistance

Mauritania

Decentralization and Productive Intermediate Cities Support Project AF

TABLE OF CONTENTS

I. BACKGROUND AND RATIONALE FOR ADDITIONAL FINANCING	1
II. DESCRIPTION OF ADDITIONAL FINANCING	6
III. KEY RISKS	10
IV. APPRAISAL SUMMARY	10
V. WORLD BANK GRIEVANCE REDRESS	16
VI SUMMARY TABLE OF CHANGES.....	17
VII DETAILED CHANGE(S).....	17
VIII. RESULTS FRAMEWORK AND MONITORING	20



BASIC INFORMATION – PARENT (Decentralization and Productive Intermediate Cities Support Project - P169332)

Country Mauritania	Product Line IBRD/IDA	Team Leader(s) Nahida Sinno		
Project ID P169332	Financing Instrument Investment Project Financing	Resp CC SAWU1 (9354)	Req CC AWCF1 (6550)	Practice Area (Lead) Urban, Resilience and Land

Implementing Agency: Ministry of Economy and Industry

Is this a regionally tagged project? No	
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Bank/IFC Collaboration No

Approval Date 30-Mar-2020	Closing Date 31-May-2025	Expected Guarantee Expiration Date	Environmental and Social Risk Classification Substantial
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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 type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input checked="" 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"/> Alternate Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Expanded Implementation Support (HEIS)



Development Objective(s)

The development objectives of this operation are to (i) improve access to local services in selected localities; and (ii) strengthen the capacities of Local Governments to plan and manage local public services.

Ratings (from Parent ISR)

	Implementation					Latest ISR
	24-May-2021	02-Dec-2021	10-Jun-2022	08-Dec-2022	04-May-2023	31-Oct-2023
Progress towards achievement of PDO	S	S	S	S	MS	MS
Overall Implementation Progress (IP)	S	S	MS	MS	MS	MS
Overall ESS Performance	S	S	MS	S	MS	MS
Overall Risk	M	M	M	M	M	M
Financial Management	S	S	S	S	S	S
Project Management	S	S	S	S	S	MS
Procurement	S	MS	MS	MS	S	S
Monitoring and Evaluation	S	S	MS	MS	MS	MS

BASIC INFORMATION – ADDITIONAL FINANCING (Decentralization and Productive Intermediate Cities Support Project AF - P181311)

Project ID	Project Name	Additional Financing Type	Urgent Need or Capacity Constraints
P181311	Decentralization and Productive Intermediate Cities Support Project AF	Restructuring, Scale Up	No



Financing instrument Investment Project Financing	Product line IBRD/IDA	Approval Date 30-Nov-2023	
Projected Date of Full Disbursement 31-Dec-2027	Bank/IFC Collaboration No		
Is this a regionally tagged project? No			

Financing & Implementation Modalities

<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input 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 checked="" type="checkbox"/> Responding to Natural or Man-made disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Expanded Implementation Support (HEIS)
<input checked="" type="checkbox"/> Contingent Emergency Response Component (CERC)	

Disbursement Summary (from Parent ISR)

Source of Funds	Net Commitments	Total Disbursed	Remaining Balance	Disbursed	
IBRD				<div style="width: 0%; height: 10px; background-color: #ccc;"></div>	%
IDA	66.00	16.34	48.82	<div style="width: 25%; height: 10px; background-color: #008000;"></div>	25 %
Grants				<div style="width: 0%; height: 10px; background-color: #ccc;"></div>	%

PROJECT FINANCING DATA – ADDITIONAL FINANCING (Decentralization and Productive Intermediate Cities Support Project AF - P181311)

FINANCING DATA (US\$, Millions)

**SUMMARY (Total Financing)**

	Current Financing	Proposed Additional Financing	Total Proposed Financing
Total Project Cost	71.00	27.50	98.50
Total Financing	71.00	27.50	98.50
of which IBRD/IDA	66.00	25.00	91.00
Financing Gap	0.00	0.00	0.00

DETAILS - Additional Financing**World Bank Group Financing**

International Development Association (IDA)	25.00
IDA Credit	25.00

Non-World Bank Group Financing

Counterpart Funding	2.50
National Government	2.50

IDA Resources (in US\$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
Mauritania	25.00	0.00	0.00	0.00	25.00
Crisis Response Window (CRW)	25.00	0.00	0.00	0.00	25.00
Total	25.00	0.00	0.00	0.00	25.00

COMPLIANCE**Policy**

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

Yes No

Does the project require any other Policy waiver(s)?

Yes No



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

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Relevant
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).

INSTITUTIONAL DATA

Practice Area (Lead)

Urban, Resilience and Land

Contributing Practice Areas

Energy & Extractives
Governance

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

**PROJECT TEAM****Bank Staff**

Name	Role	Specialization	Unit
Nahida Sinno	Team Leader (ADM Responsible)	Municipal Development	SAWU1
Jonas Ingemann Parby	Team Leader	Decentralization	SAWU1
Brahim Hamed	Procurement Specialist (ADM Responsible)	Procurement	EAWP1
Ahohouindo Mongnihoude Jean L Gbaguidi	Financial Management Specialist (ADM Responsible)	Financial Management	EAWG1
Cheikh Hamallah Diagana	Social Specialist (ADM Responsible)	Social Safeguards	SAWS4
Medou Lo	Environmental Specialist (ADM Responsible)	Env. Safeguards	SAWE1
Adama Diop	Team Member	WFACS	WFACS
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Extended Team

Name	Title	Organization	Location
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I. BACKGROUND AND RATIONALE FOR ADDITIONAL FINANCING

A. Introduction

- This project paper seeks the approval of the Executive Directors to provide an additional credit in the amount of SDR 19.1 million (US\$25.0 million equivalent) from the International Development Association (IDA) Crisis Response Window (CRW) to the Islamic Republic of Mauritania for the Decentralization and Productive Intermediate Cities Support Project (Moudoun, P169332).** The proposed Additional Financing (AF) would help finance urban flood risk reduction and resilient recovery activities in response to flooding that impacted Mauritania in 2022.
- The Moudoun project, financed by a US\$66.0 million IDA grant and US\$5.0 million counterpart funding, was approved on March 30, 2020 and became effective on October 5, 2020—its closing date is May 31, 2025.** The Project Development Objectives (PDO) are to: (i) improve access to local services in selected localities; and (ii) strengthen the capacities of Local Governments (LGs) to plan and manage local public services. The parent project's performance has been satisfactory over the last 12 months with all ratings assessed Moderately Satisfactory (MS) or higher. Disbursement stands at 25 percent.
- The project is designed with four components as follows.** Component 1. Improving Access to Infrastructure and Services for Economic Development (US\$55.0 million equivalent): (i) Subcomponent 1.1. Resilient urban infrastructure and services supporting economic development in selected Southern intermediate cities (US\$36.0 million) finances investments in infrastructure and services to support the economic development of seven urban localities;¹ and (ii) Subcomponent 1.2. Urban and rural electrification (US\$19.0 million) finances: (a) service-based rural electrification through a public-private partnership on solar hybrid mini-grids in collaboration with French Development Agency (*Agence Française de Développement*, AFD); (b) the electrification of Bassikounou and M'béra; and (c) project management support to National Electricity Utility (*Société Mauritanienne d'Electricité*, SOMELEC). Component 2. Strengthening Decentralization and Local Government Capacity (US\$8.0 million equivalent): (i) Subcomponent 2.1 (US\$2.0 million) strengthens systems for implementing decentralization reforms; and (ii) Subcomponent 2.2 (US\$6.0 million) finances capacity building of the targeted LGs, especially in public finance management (PFM) and human resource management (HRM). Component 3. Project management (US\$8.0 million equivalent): supports implementation. Component 4. Contingency Emergency Response Component (CERC) (US\$0.0 million).
- The Moudoun project will be restructured (level two) to introduce the following changes:** (i) add an urban resilience recovery subcomponent following the 2022 floods; (ii) extend the closing date by 31 months to December 31, 2027; and (iii) revise the results framework.

B. Background

- Mauritania is facing higher frequency and severity of climate-related disasters, which affect economic stability and growth.**² The country is exposed to various types of hazards, including river, coastal and urban

¹ Adel Bagrou, Aioun, Bassikounou, Kiffa, M'béra Camp, Néma, Rosso and Sélibaby

² World Bank. 2022. Sahel Region Country Climate and Development Report (CCDR). CCDR Series. © Washington, DC: World Bank.



floods, water scarcity, wildfires and extreme heat.³ The 2022 World Disaster Risk Index ranks Mauritania 61st (out of 192) among the world's highest risk countries, with a lack of adaptive capacities rated as high. Climate change is expected to increase risks and severity of disasters in Mauritania, through more intense temperatures, prolonged heat waves and increased rainfall variability. Mauritania is also projected to face the highest relative sea level rise in West Africa over the course of this century.⁴ The frequency of disaster is taking a toll on the economic performance. From 2000-2020, on average, almost 10 percent of the population has been impacted by climate hazards.⁵ Over the last decade, deadly floods have been reported once every two years on average. Annual average losses associated with floods are estimated at US\$17.39 million (0.25 percent of Gross Domestic Product [GDP]).⁶

6. **With 56 percent of its population living in urban areas in 2021,⁷ Mauritania is one of the most urbanized countries in Sub-Saharan Africa.** More than 60 percent of the urban population lives in the capital Nouakchott⁸ while the remainder is mostly settled within the Senegal River Valley. It is estimated that almost 80 percent of the urban population resides in informal settlements, highlighting the high levels of vulnerability of urban dwellers.⁹ The fast-paced urbanization of Mauritania has not been informed by climate and disaster risk planning or analysis, and cities have been steadily expanding in risk-prone areas.
7. **Most urban areas in Mauritania are currently exposed to high flood risk.** A large share of the urban population lives in flood-prone areas and flooding is a recurring issue. The floods following the 2022 rainy season caused 19 casualties, affected 38,000 people, and destroyed 4,000 housing units.¹⁰ In previous years, four people have reportedly died in Assaba region on September 13, 2020, and five people have reportedly died following the flooding that affected southern parts of the country in August in 2019.¹¹ The regions of Brakna and Assaba were affected by floods in 2017, leaving at least 18 people dead.¹² Flooding also affects the economic activities in the cities, either by the destruction or damage to infrastructure as well as by limiting urban mobility of people and goods. Stagnant water in urban areas contaminated by solid and liquid waste results in an unsanitary environment for the local population, putting them at risk of epidemics.
8. **Lack of investment in flood management infrastructure and insufficient urban planning are the main drivers of urban flooding, in addition to changing rainfall patterns.** Financing for flood management has been quite limited in the recent past despite quick urban growth. No recurring budget for maintenance is allocated to the National Office for Sanitation (*Office National d'Assainissement*, ONAS). Despite urban planning instruments, cities such as Nouakchott, Kaédi, and Rosso have expanded without due consideration of climate risks, and without adequate investment in drainage systems. This is particularly complex in the project intervention area in the Senegal River Valley, where the main cities are all located in depression areas compared to the sea level or river level and with high water table levels. In Kaédi, for instance, settlements are built in areas at risk of flooding, within the city as well as on the riverbank. In addition, flood management

³ ThinkHazard!

⁴ Ibid.

⁵ International Monetary Fund Country Report No. 23/74.

⁶ Mauritania First Fiscal Management and Resilience Development Policy Financing (P179263) Program Document: World Bank.

⁷ World Bank Data: <https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=MR>

⁸ Africapolis: Mauritania Country Report.

⁹ Mauritania First Fiscal Management and Resilience Development Policy Financing (P179263) Program Document: World Bank.

¹⁰ <https://reliefweb.int/report/mauritania/mauritania-floods-update-noaa-cpc-un-ocha-echo-daily-flash-14-september-2022#:~:text=Since%20late%20July%2C%20heavy%20rainfall,and%20almost%204%2C000%20houses%20destroyed.>

¹¹ <https://floodlist.com/africa/mauritania-floods-september-2020>

¹² <https://floodlist.com/africa/mauritania-floods-brakna-assaba-september-2017>



systems are weak, their absorption capacity is insufficient, and they are not well maintained. Lack of solid waste management (SWM) in Kaédi also affects the drainage system. In Rosso, flash flooding is considered highly likely. High risk for river flooding is also high due to heavy rainfall interspersed with increased aridity. In Rosso, at the time of the 2022 flooding, all four water pumps in place were not operational, and drains were completely saturated with sediments and debris. A sanitary landfill in Rosso financed by the parent project is being prepared.

9. **While some steps have been taken by the Government of Mauritania (GoM) in building disaster risk management policy and frameworks, significant gaps persist at both the institutional and operational levels.** A national disaster risk reduction strategy and plan were developed in 2007 and validated in 2009. Mauritania has a National Relief Organizational Plan (*Plan d'organisation de secours d'urgence*, ORSEC) to manage emergency relief through an inter-ministerial committee under the authority of the Prime Minister. The ORSEC plan covers procedures for providing emergency response and deploying personnel during disasters. Following the COVID-19 pandemic, a national early warning system and response mechanisms to crises and natural disasters were established, including with management structures set up in the country's 15 provinces. Cross-sectoral coordination, however, remains weak, resulting in fragmented implementation.

C. Project Performance

10. **The parent project performance toward the achievement of the PDO and overall implementation progress are rated MS.** Despite delays under Component 1 (especially under Subcomponent 1.2), the project has made implementation progress and is on track to achieve its development objectives. The number of beneficiaries provided with improved access to services through the project is currently at 47,000¹³ versus an initial target of 140,000 beneficiaries. Project management, financial management, counterpart funding, procurement, and monitoring and evaluation remain on track. Specific progress is summarized below.
11. **Component 1. Improving Access to Infrastructure and Services for Economic Development (rated MS in the last Implementation Status and Results Report [ISR]):**
 - a. Subcomponent 1.1. Resilient urban infrastructure and services supporting economic development in selected Southern intermediate cities: is organized around: (i) a rapid investment program; and (ii) a larger-scale investment program in the seven selected urban localities. The rapid investment program focused on city enhancements (e.g., rehabilitation of public squares, building of city gates, greening of public spaces)—was largely delivered and benefited thus far an estimated 47,000 people. Most remaining investments are expected to be completed by December 31, 2023. The larger-scale investment program¹⁴ (e.g., roads, SWM, wetland restoration, sustainable tourism) is advancing with most subprojects on track for delivery. However, a few complex subprojects (e.g., SWM) experienced substantial delays in part due to suboptimal quality environmental and social (E&S) instruments. These are now on track. The AF will further build on the climate-resilience investments undertaken under the larger-scale investment program (wetland restoration). Investment identification and implementation for the M'béra camp and surrounding host communities started only recently and followed a different process to carefully manage social risks between host community and refugees.

¹³ Extrapolated figure to be confirmed in upcoming field surveys.

¹⁴ The first tranche of unconditional grant to the targeted localities amounted to about 70 percent (US\$25.2 million) of the total envelop for this Subcomponent and is under implementation with expected completion by January 31, 2025. The second tranche i.e., the remaining 30 percent (US\$10.8 million) will be allocated based on localities' performance following the mid-term review and is expected to be completed by January 31, 2026.



- b. Subcomponent 1.2. Urban and rural electrification: the transaction advisor for the PPP solar mini grids was only hired in April 2023, two years behind schedule, in part due to delays in the AFD recruitment. The activity will need further acceleration in implementation to be completed before the proposed new closing date. The feasibility study for the electrification Bassikounou and M'béra was launched in May 2023 and is experiencing important delays. A technical assistance (TA) has been mobilized in March 2023 to carry out a study on the cost of service and rate methodology. Studies on the electrification of Nouakchott are also underway.

12. Component 2. Strengthening Decentralization and LG Capacity (rated MS in the last ISR):

- a. At the central level (Subcomponent 2.1): a TA for the implementation of the national decentralization strategy was launched in 2022 and is being rolled out. The TA has already produced key documents including a draft of a new LG Law and a proposal for the functional reorganization of the LG Directorate. Moreover, five agreements were signed with national institutions associated with urban development and management. In particular, the agreement between the Project Coordination Unit (PCU) and the Ministry of Habitat, Urbanism and Territorial Management has contributed to the preparation of the new Urban Law adopted by the Councils of Ministers on October 12, 2023 —will serve as a prior action for a World Bank-financed development policy operation under preparation.
- b. At the local level (Subcomponent 2.2): the project has made progress on city management assessment and tools.¹⁵ However, progress has been less advanced on the use of the assessments and tools to help improve municipal performances. LG organizational audits revealed technical capacity shortfalls, which need to be catered for, in order for LGs to manage investments that will be delivered under Component 1. Despite delays, the municipal tax collection system supported by the project (*Al Mouhassil*) have yielded positive results (a substantial increase in LG own-source revenue collection ranging from +60 to +1200 percent depending on the LG).

- 13. Component 3. Project management (rated MS in the last ISR):** All technical staff required were recruited within the PCU and the SOMELEC's Project Management Unit. To support implementation inside the country, the PCU opened two antennas office consisting of four staff in Kiffa and five in Néma. A project focal point was also designated in Rosso. The steering committee meets regularly. Project staff capacity has been reinforced through targeted activities and TA. Capacity constraints persist in producing E&S instruments; however, a proactive approach has been undertaken including hiring an international TA and intensive handholding by the World Bank. The quality of the documents is expected to further improve in the next few months. The Grievance Redress Mechanism (GRM) was prepared and approved by the World Bank and is under implementation in all selected urban localities. Fiduciary aspects are satisfactorily managed and there are no outstanding interim financial reports (IFRs) or audit reports.

- 14. Component 4. Contingency Emergency Response Component (rated Satisfactory in the last ISR):** has not yet been activated. Following the 2022 flood event, it was decided that: (i) emergency activities would be financed by GoM, in part using the CERC of another project; and (ii) medium-term recovery and climate resilience activities would be financed under the Moudoun Project.

D. Rationale for Additional Financing

¹⁵ The project delivered eight Municipal/Local Development Plans in the selected urban localities, with M'béra Camp benefiting for the first time of such plans, organizational audits of the municipalities, dissemination of a new tax collection system (*Al Mouhassil*), and piloting local platforms to create a dialogue between the local authorities and public and private operators.



15. **Heavy rainfall in Mauritania during the months of July, August, and September 2022, caused severe flooding and damages amounting to almost 3 percent of the country's GDP.** These floods had a significant impact on urban areas, resulting in casualties, displacement of population, loss of livestock, and destruction of vital infrastructure such as roads, health centers and schools. Rainwater puddled in many urban areas preventing movement of people, increasing the incidence of water-borne diseases, and delaying the start of the school year.
16. **According to the rapid damage and needs assessment conducted by the GoM with World Bank support,¹⁶ the overall damages and losses are estimated at US\$279.0 million while the needs for recovery exceed US\$306.0 million.** The infrastructure sector is the most impacted with damages and losses estimated at US\$224.0 million. More specifically, damages and losses in water supply and sanitation alone amount to US\$165.0 million, including damages to distribution networks, drainage and wastewater management systems, gutters, and latrines. The assessment underpinned the CRW resource mobilization approved in May 2023, providing the country with US\$40.0 million, out of which: (i) US\$ 15.0 million were allocated for immediate needs to replenish the CERC activated under a World Bank-financed project; and (ii) US\$25.0 million in AF to the Moudoun project for medium-term resilient recovery.
17. **The GoM in a letter dated February 24, 2023, requested an AF to incorporate urban resilience activities in the two most impacted intermediate cities of Kaédi and Rosso.** Responding to the GoM's AF request is timely and appropriate to deepen the impact of the Moudoun project. It supports a more climate resilient urban development, in the aftermath of a flood event, as follows:
- The areas most impacted by the 2022 floods fall under the parent project intervention zone along the Senegal River. Kaédi and Rosso were the intermediate cities most impacted by the 2022 floods. Rosso is already one of the selected cities benefiting from Subcomponent 1.1. Kaédi was not but it is one of the main intermediate cities of Southern Mauritania with approximately 50,000 urban inhabitants, the third biggest southern urban agglomeration after Kiffa and M'béra, and one of the economic centers along the Senegal River.
 - The long-term goal of the project to support integrated and effective regional development through the creation of jobs and economic opportunities in intermediate cities is jeopardized by the risks associated with flooding. In Rosso and Kaédi, the flood risk is particularly high due to the topography and morphology of the terrain.¹⁷ Flooding in those cities affects the businesses and constrain their operation during flooding and the recovery period.
 - The proposed activities of the AF are consistent with the PDO of improving access to local services in selected urban localities and will help consolidate investments to meet the climate challenges faced by these localities that put people, assets and economic activities at risk.
The AF would support a package of response to the 2022 flood in Mauritania while ensuring resilient recovery. It will not only support the selected urban localities in the medium-term following the event but will also help them design disaster recovery plans, adapt to urban and climate challenges they are facing, and develop resilient land-use planning and infrastructure.
18. **Since the 2022 flood event, the GoM undertook measures to initiate flood response.** In Rosso, the GoM financed ONAS to carry out emergency works from February to June 2023, including the: (i) rehabilitation of two pumping stations; (ii) dredging 17,137 linear meters of the existing network; and (iii) covering the drainage system with six meters long concrete slabs to prevent waste dumping. The Ministry of Hydraulics

¹⁶ *Évaluation rapide post-inondations de la saison de l'hivernage 2022 en Mauritanie*. February 2023.

¹⁷ Parts of the cities are below the Senegal River level in rainy seasons and very close to the water table.



and Sanitation launched in 2023 with support from the African Development Bank a study in Rosso focused on SWM, stormwater and wastewater management. Evacuation of waste was initiated in Kaédi.

19. **The AF is strategically aligned with the current World Bank Group Country Partnership Framework for Mauritania FY2018-FY2023 (Report No. 125012-MR).** The AF builds on the forthcoming development policy operation (P179263)— that aims to strengthen institutions for improved climate and disaster resilience. The AF also complies with the Sahel Countries Climate and Development Report’s¹⁸ targeted actions that aim to move Mauritania towards a greener, more resilient, prosperous, and inclusive future, aligned with the Paris Agreement— since flood management is part of the universally aligned activities.
20. **The AF is consistent with and supports the achievement of Mauritania’s Nationally Determined Contribution (NDC).** Mauritania submitted an updated NDC in 2021, with a new target to cut greenhouse emissions by 11 percent in 2030.¹⁹ Under the mitigation policy measures, among other things, the GoM committed to: (i) developing and implementing a National SWM Plan and a waste recovery; and (ii) building landfill consistent with the international standards.²⁰ GoM’s commitments under adaptation policy measures include *inter alia*: (i) improving sanitation systems in top five cities at high risk of flooding (Nouakchott, Nouadhibou, Atar, Kaédi, and Rosso); (ii) developing a national land use plan resilient to climate change; (iii) conducting vulnerability risk assessments and improving information system on climate change; and (iv) developing early warning systems and risk management capacity.²¹ The proposed AF activities are aligned with these commitments.

II. DESCRIPTION OF ADDITIONAL FINANCING

21. **The AF will maintain the original PDOs to “(i) improve access to local services in selected localities; and (ii) strengthen the capacities of Local Governments to plan and manage local public services.”** Similarly, Component 2: Strengthening Decentralization and Local Government Capacity; Component 3: Project Management; and Component 4: CERC will remain the same.
22. **A new Subcomponent 1.3 (US\$25.0 million equivalent)²²: Reducing urban flood risk and resilient recovery will be added under Component 1: Improving Access to Infrastructure and Services for Economic Development, financed by the AF.** The investment activities of Subcomponent 1.3 will be primarily focused on the intermediate cities that were mostly affected by the 2022 floods— Kaédi and Rosso. Studies and TA will be carried out in other cities that show great vulnerability as well. More specifically, Subcomponent 1.3 includes three main types of activities:
 - a. Development of urban planning instruments and technical flood risk management studies and tools (US\$5.0 million). A series of urban planning instruments and technical studies for long-term interventions in the sector focused on strengthening the coping abilities of cities to existing urban and climate challenges and future ones that will arise with new urban extensions. Urban planning

¹⁸ World Bank. 2022. Sahel Region Country Climate and Development Report (CCDR). CCDR Series. Washington, DC: World Bank. <http://hdl.handle.net/10986/37620> License: CC BY 3.0 IGO.

¹⁹ <https://climatepromise.undp.org/what-we-do/where-we-work/mauritania>

²⁰ International Monetary Fund Country Report No. 23/74

²¹ International Monetary Fund Country Report No. 23/74

²² Current cost in Section VII: Detailed Changes did not reflect initial counterpart funding of US\$5.0 million under Component 1 and Component 3. The AF proposed cost is revised to include the parent project counterpart funding.



tools will be simplified and will consider climate change (i.e., climate risk-sensitive planning, including flood and heat-risk informed zoning etc.), following principles enshrined in the new Urban Law adopted by the Councils of Ministers on October 12, 2023– as supported by an upcoming development policy operation. Activities include: (i) urban masterplans (*schéma directeur d'aménagement urbain*) to operationalize the new Urban Law; (ii) flood-related data collection for urban agglomeration – e.g., Digital Terrain Models using Light Detection and Ranging (LiDAR) – to support national observation and climate change projection efforts looking at the next 50 years; and (iii) flood prevention and urban resilience plans for the next 50 years focused on urban resilience.²³

- b. Completion of priority investments for sustainable flood risk reduction (US\$18.0 million). Deriving from the above-mentioned studies and tools and considering the likely risks that could impact the investments under this sub-component and climate change projections for Mauritania, priority investments are a combination of grey, blue and green infrastructure for building back better, including technical studies, primarily in the two cities of Kaédi and Rosso. Activities include: (i) cleaning/dredging of the existing stormwater and drainage system; (ii) city cleaning in general (including retention ponds); (iii) construction of flood-resilient landfill and support to a functioning SWM system in Kaédi; (iv) rehabilitation of non-operational pumping stations to mitigate climate risk; (v) feasibility studies/works for the reinforcement of dikes to make protected areas resilient to climate change; (vi) rehabilitation of the existing drainage and stormwater system to increase the capacity of the network and reduce the entry of waste and sand; and (vii) nature-based solutions (NBS), including rehabilitation or creation of infiltration ponds, green and blue corridors, rehabilitation of wetlands, greenfield flood protection measures. Depending on preliminary technical studies findings and resulting final estimates, rapid civil works to strengthen the urban resilience in other cities could also be financed based on needs. Investments will be prioritized based on efficiency and efficacy criteria as well as E&S requirements including citizen engagement and will be further detailed in the Project Operations Manual. It is estimated that about US\$15.0 million of the US\$18.0 million (83 percent) envelop will finance NBS and rehabilitation of the existing stormwater drainage system. The SWM activities are estimated at about US\$2.0 million.
- c. Provision of technical assistance and critical materials to strengthen the institutional capacity to manage the sector and prepare for and respond to disasters (US\$2.0 million). Activities include: (i) TA and critical materials to ensure efficient SWM by municipalities (e.g., anti-littering campaign/community health and safety), operations and maintenance (O&M) of the drainage systems by the ONAS and municipalities and risk-sensitive/climate resilient urban development to prevent the further encroachment of settlements in hazard areas and to facilitate adaptive measures to mitigate future flood damages; and (ii) support for basic emergency management equipment (e.g., Search and Rescue) based on the identified needs and gaps.

23. **Component 3. Project Management.** Counterpart funding amounting up to US\$2.5 million will be injected into Project Management for the coordination of these new activities.

24. **The institutional arrangements remain the same.** The Moudoun PCU will carry out the Subcomponent 1.3 activities. To enable effective oversight of the AF activities, a third PCU antenna will be established in Rosso. Given that the flood management competence falls under ONAS, a contract management agreement (*Convention de Maitrise d'Ouvrage Délégué*) between the PCU and ONAS will be signed to clarify the respective roles and responsibilities with regards to the civil works that will be undertaken in Kaédi and Rosso.

²³ Several data center initiatives on climate and urban are being initiated and the project would assess and support a consolidated approach for greater financial sustainability.



O&M systems will be carried out by the competent authorities. Given limited local capabilities in the area of flood risk management, the PCU will be supported by a technical advisor (multi-skilled firm) who was recruited to help conduct the newly added activities and ensure quality control.

25. **Results Framework (RF).** The RF will be strengthened by: (i) adding new indicators to capture the results that will be achieved under Subcomponent 1.3; and (ii) reformulating/deleting some of the parent operation’s indicators to reflect implementation realities that evolved since project design. Further details are presented in Section VIII and Table 1. The updated results chain/theory of change is presented in Figure 1.

Table 1. Summary of RF changes

Indicator	Proposed Changes
PDO	
Improve access to local services in selected Localities	
People provided with improved access to services through the project	The final target was revised upward from 140,000 to 170,000 to take into consideration the AF beneficiaries (flood management).
Beneficiary local businesses in targeted localities positively impacted by the infrastructures financed by the project	This indicator was reformulated to take into consideration informal and formal business activities as follows: “Beneficiary local economic actors in targeted localities positively impacted by the infrastructures financed by the project”. The indicator is expanded to include Kaédi the AF newly added city.
Electricity connections created as a result of the project	Annual targets were pushed back to reflect implementation delays.
Urban area in Kaédi and Rosso protected against recurrent flooding through drainage works	Newly added indicator to capture the AF results.
Strengthen the capacities of Local Governments to plan and manage local public services	
Increase in Annual Investment Budget execution of targeted municipalities	This indicator was dropped as it became less relevant since municipalities are not implementing most of the works under Subcomponent 1.1. Municipalities are still in charge of operating and maintaining their assets.
Operations and maintenance plans developed, approved and implemented in targeted municipalities	A new more relevant indicator was introduced to replace the dropped PDO indicator related to this Component, as described above.
Intermediate Results Indicators	
Component 1: Improve access to local services in selected Localities	
Length of all-seasoned roads built by the project	Annual targets were pushed back to reflect implementation delays.
Quantity of waste collected and properly treated	Annual targets were pushed back and revised downward from 30,000 to 12,000 metric tons, to reflect implementation realities.
Investment Selection Committees with at least 30 percent women and, where relevant, one refugee representative	Annual targets were added for the outer years of the AF.
Electricity output from renewable energy constructed or rehabilitated	Annual targets were pushed back to reflect implementation delays.
Urban and climate resilience planning documents developed	Newly added indicator to capture the AF results.
Length of drainage canals cleaned, dredged or rehabilitated in Kaédi and Rosso	Newly added indicator to capture the AF results.
Public officials from LGs and line ministries trained in urban and climate resilience	Newly added indicator to capture the AF results.



Indicator	Proposed Changes
Component 2: Strengthen the capacities of Local Governments to plan and manage local public services	
Region and Municipal Development Plans approved	Indicator was reformulated as follows: “Local/municipal Development Plans approved”. Regional development plans were not financed under the parent project, given the limited traction of this reform.
Investment Plans between the National Government and Regions signed	This indicator was dropped. Regional development plans were not financed under the parent project, given the limited traction of this reform. It was replaced by: “Activities in work plans completed for national level agencies/institutions targeted under the project”.
Increase of own-revenue mobilization in the targeted municipalities	This indicator was reformulated as follows: “Municipalities with increased own-source revenue generated from project interventions”. The percentage increase of own-revenue mobilization cannot be realistically measured in the outer years of implementation, given that municipalities improved significantly their own-revenue mobilization in the early years of implementation.
Local public officials from LG and line ministries trained in LG PFM or HRM	The final target was revised downward from 2,400 to 300 to reflect implementation realities. Annual targets were added for the outer years of the AF.
Grievances received, recorded and addressed by the project within two weeks	Annual targets were added for the outer years of the AF.

Figure 1. Updated Results Chain/Theory of Change



26. **Environmental and Social Review Summary (ESRS).** The Environment and Social Management Framework (ESMF), Resettlement Policy Framework (RPF), Stakeholder Engagement Plan (SEP) and Environmental and Social Commitment Plan (ESCP) have been updated and disclosed.²⁴ Those were incorporated into the AF

²⁴ The SEP was disclosed in-country on October 18, 2023, and on the World Bank's website on October 19, 2023. The RPF was disclosed in-country on October 12, 2023, and on the World Bank's website on October 17, 2023. The ESMF was disclosed in-



ESRS, which summarizes the E&S risks and impacts of the new Subcomponent.

27. **Extension of the Closing Date.** The closing date would be extended by 31 months to allow enough time for the implementation of Subcomponent 1.3. The proposed closing date is December 31, 2027.

III. KEY RISKS

28. **The overall risk rating of the project will remain Moderate with the Political and Governance and E&S risks rated as Substantial.**²⁵
29. **The Political and Governance risk remains Substantial.** Regional and municipal elections were held in May 2023, ahead of presidential elections before June 2024. Like in any other democracy, this period is typically characterized by a fluid institutional environment and is associated with political and administrative changes. Social diversity in the interior of the country could have implications on the implementation of development projects. To mitigate this risk and improve project ownership, the AF like the parent project, adopts a participatory and inclusive approach through substantial and frequent consultations with local stakeholders.
30. **The overall E&S risk remains Substantial.** The key potential risks and impacts associated with the project's activities identified in the ESMF and E&S impact assessments (ESIAs) are related to: (i) the construction phase: (a) resource efficiency and pollution prevention and management (mismanagement of construction waste that could lead to water and soil contamination, sourcing of raw materials, water and energy use, dust, noise etc.); (b) occupational and community health and safety due to civil works in urban areas (risks of accidents at work and traffic, social conflicts between local populations and construction site staff, risks of sexual abuse etc.); and (c) land and acquisition, which can lead to physical and economic resettlement of people located in the rights-of-way of some infrastructure such as urban roads and dikes, or of people living in the vicinity of certain areas to be developed (e.g., Lemsila in Kiffa); and (ii) during operation: (a) leachate and runoff from SWM facilities that can contaminate soil and water resources; and (b) clandestine sewage connections to the stormwater drainage network, leading to a deterioration in the quality of the drained water discharged in the Senegal River. This risk to the Senegal River is the main new risk introduced by the AF. In addition to these risks and impacts, E&S management remains weak. Handholding from the World Bank and support to the PCU by international experts will continue to be provided.

IV. APPRAISAL SUMMARY

A. Economic and Financial Analysis

31. **Over a 20-year period, the AF's return on investment is significant— with Net Present Value standing from US\$108.17 million in the best-case scenario, to US\$16.84 million in the less favorable one. Internal Rate of Returns ranging from 62.42 percent to 13.05 percent.** Two methodologies are used to estimate the return

country on October 24, 2023, and on the World Bank's website on November 3, 2023. The negotiated ESCP was disclosed in-country on November 3, 2023, and on the World Bank's website on October 27, 2023.

²⁵ The other risk category (rated Moderate) is refugee-related risk and does not apply to the AF, as the AF intervention zones do not host significant number of refugees.



of the investment of the AF: (i) a cost-benefit analysis based on the frequency of flooding in the area; and (ii) an estimation of the intangible costs related to flooding. Based on a literature review, it has been estimated that floods in the area covered by the AF are occurring every three to five years. Half of the total costs of the damages due to the floodings in the country (US\$139.5 million) are also assumed to be in the two most affected areas covered by the AF (Kaédi and Rosso). These costs are therefore assumed to occur every three or five years. The estimated cost of mitigating the effects of flooding by the AF is US\$17.0 million at 12 percent of the ratio of AF investment and cost of flooding. By conservative analysis, the cost would be at 5 percent of the rate of AF investment and flooding costs. The second methodology is based on the economic benefits related to health impacts of improved flood management and sanitation services. Stormwater often floods the sanitary facilities and becomes a vector of pollution and diseases. The consequences on the environment, the quality of living, and health conditions of the population are well-documented. Based on Hutton, the total benefit that will arise from the AF is US\$23.8 million with the mitigating impact of floods, over the medium term, using a benefit-cost ratio of 1.4.²⁶ Health is the main area of impact, with access to health centers time saving representing 62 percent of the total benefit, and health care representing another 12 percent, i.e., a total of 74 percent. The economic analysis of the parent project remains relevant and valid. The AF does not change the underlying economic analysis of the existing activities under the parent project as it does not alter any of the original activities.

B. Technical

32. **The AF activities draws on a field-based assessment carried out in Kaédi and Rosso by the World Bank in October 2022, which involved the main national and local stakeholders.** The final plan was discussed in a workshop in Nouakchott on March 16, 2023. Ministry of Interior and Decentralization, Ministry of Hydraulics and Sanitation, ONAS, Ministry of Habitat, Urbanism and Territorial Management – participated in the event and approved the plan.
33. **The AF proposes to combine investments and TA activities providing a comprehensive medium-term response to urban flooding challenges in Kaédi and Rosso.** The field-based assessment covered all aspects related to efficient flood management in Rosso and Kaédi, including SWM, sanitary risks, stormwater and wastewater management, river flooding, as well as urban planning. The roadmap proposed under the AF takes into consideration a no-regret approach, focusing on investments for high-impact investments while conducting TA for planning instruments to cope with more structural constraints, future urban growth and climate change. In Kaédi, the risks are higher and issues more complex with entire neighborhoods built in flood prone areas, which requires to develop and assess different options based on investment costs and economic and social impacts. For those neighborhoods, only critical investments will be financed under the AF while a proper assessment will be conducted under the planning instruments for possible future interventions. Kaédi also suffers heavily from lack of SWM— as a result, water retention basins are used to dump waste. This accumulation of waste hinders the functioning of the network (for the parts that could be functional), but above all constitutes a high sanitary risk during rainy periods, and especially in the event of stagnation of water in the city. In Rosso, a drainage system in the city (approximately 11 kilometers of drains) exists but it is insufficient, and its current capacity is blocked by solid waste and lack of regular maintenance. In general, there are very few (if any) green areas in the city that would accelerate water infiltration and provide retention areas to reduce the load on the drainage system. A large storm water basin exists but it is not permeable, and the water stagnates in it until it evaporates or is pumped out by a mobile pump.

²⁶ Hutton, Guy (2013): “Global costs and benefits of reaching universal coverage of sanitation and drinking-water supply”, World Health Organization, Journal of Water and Health.



34. **Lessons learned from other World Bank-financed flood response operations.** The technical solutions that will be funded under the AF will combine grey, blue with green infrastructure and adopts an integrated approach combining structural and nonstructural measures to mitigate flood risk. In Rosso, the existing retention pond that is currently not functioning properly will be rehabilitated – pending the results of geological tests. Other NBS will be also proposed. Infrastructure alone is not insufficient to effectively reduce flood risk, a multi-dimensional approach to flood risk management is needed. Nonstructural measures will be financed including TA to reinforce the institutional capacities on O&M, SWM, and ability of the city to integrate flood risk considerations into future urban and investment planning.
35. **Sustainability.** Mauritania suffers from a lack of maintenance budget across sectors. To mitigate this risk and ensure project sustainability, the AF will work with the LGs to make sure that the works are maintained at the local level in coordination with the central level. The support provided by the project to LGs includes TA to improve own-source revenue, sustainable O&M and SWM. Support will also be provided to ONAS to ensure they are well equipped to play their role. The more long-term reform to better delineate the role and responsibilities between the various GoM’s entities is being supported by other development partners, including support on reforming the water and sanitation laws.
36. **Paris Alignment.** The AF is aligned with the goals of the Paris Agreement on both mitigation and adaptation.
- a. Assessment and reduction of mitigation risks: The AF activities will not have a negative impact on the country’s transition to a low Greenhouse Gas (GHG) emission development pathway. Most activities are universally aligned or considered low-risk on mitigation, except for the landfill and SWM activities that could constitute a potential source of significant GHG emissions. Urban planning activities and capacity building/TA activities have been assessed as low mitigation risk as they do not prevent municipalities from transitioning to lower carbon alternatives and limit the risk of carbon lock-in to a minimum. Flood management and urban drainage are activities featured on the Joint Multilateral Development Bank list of activities considered universally aligned. NBS solutions will replace where possible ‘conventional’ approaches (e.g., buried networks, concrete channels, single-purpose hydraulic retention basins). According to the GHG emissions analysis (Annex 1), the potential emissions of the SWM activities in Kaédi are estimated to be lower than the emissions of the business as usual (BAU) gross emissions (open dumping). SWM activities are an essential part of an improved waste and stormwater management system for the city of Kaédi and thus the achievement of the PDO. The GHG emissions analysis showed that the SWM activities’ overall impact would be positive through the environmental lens. It will result in a higher rate of localized collection, improved sorting, increased recycling, reduction in vector-borne diseases, and lower GHG emissions. Mitigation risks are therefore reduced to low.
 - b. Assessment and reduction of adaptation risks: As stated earlier, Mauritania is highly vulnerable to climate change which is set to further intensify and stress its current conditions. Mauritania’s temperatures are likely to rise even further over the coming decades, which will worsen the irregular rainfall patterns, exacerbating both droughts and floods. Climate change is likely to increase the frequency of extreme floods, which calls for long-term investments to better prepare, improve response and flood risk reduction and increase resilience of cities against these events. The AF will address vulnerabilities to climate change through risk assessments, mapping, mitigation measures, and infrastructure specifically designed to withstand future extreme climate conditions using the most updated models with multi-decade horizon to reduce risks related to current and future climate extremes. Investments in drainage works and urban resilience will operationalize urban planning integrating climate change adaptation considerations financed by the AF. Beyond their hydraulic



purpose of flood hazard management, NBS solutions will also help to reduce heat islands, serve to recharge water table, restore a more natural water cycle and improve the living environment (landscape and mobility). To ensure that the inherent risk from climate change that could impact the AF's investments is minimized, climate change considerations will be integrated into planning and physical works implementation (siting, design, implementation, maintenance of resilient infrastructure investments). The adaptation risk for all activities is expected to be reduced to an acceptable level, since the flood management and disaster risk management activities-related activities will help to further reduce the risk from flooding, and urban planning activities will promote climate adaptation, both for the risks of flooding and high temperatures (prevalent in the selected locations).

37. **Gender.** The proposed AF will continue with the same gender approach as that of the parent project, which was gender tagged. The design has the following strengths: cross-cutting emphasis on gender will be adopted to bridge the gaps that limit the economic and political empowerment of women, female refugees and girls in the country. The investment selection process includes selection criteria with regard to the economic impact, impact on refugees, and gender gap reduction. It has indicator on "Investment Selection Committees with at least 30 percent women and, where relevant, one refugee representative": that went up from baseline of 0 to 5, final target is 7. The ESCP ensures a standalone GBV/SEA/SH action plan. The project pushed to hire more women among the PCU staff despite a difficult labor market with difficulty to find specific expertise. The newly added activities will also have a strong gender emphasis. Frequent disasters have left devastating impacts on the livelihoods of affected communities, especially women and vulnerable groups. The AF, through interventions aiming at improving stormwater management and increasing climate resilience of urban investments, is an opportunity and a well-positioned operation to bring changes and positive impacts contributing to reducing gender disparity and increasing inclusiveness overall. Community inclusion, especially through the attention given to the most vulnerable and precarious neighborhoods in urban areas, is an integral part of the AF with the development and implementation of social facilitation action plans including primarily Information, Education, Communication activities, with the objective to engage residents in the selected urban localities including women and most vulnerable groups, in the identification, implementation, and maintenance process.
38. **Citizen Engagement.** The parent project has shown good performance on citizen engagement mechanisms. The project financed investments that were identified as development priorities through a participatory process. Citizen engagement mechanisms were put in place to foster social cohesion between refugees and host communities, including the development of a social cohesion plan in the M'béra camp surroundings and a specific indicator to incentivize the inclusion of refugees in the investment selection "Investment Selection Committees with at least 30 percent women and, where relevant, one refugee representative". The parent project has also developed a project specific GRM operated by the PCU in the various localities allowing beneficiaries and any potentially affected individuals to submit complaints, questions, and comments and receive timely feedback and resolution. The parent project includes a relevant indicator to measure citizen engagement and satisfaction: "Grievances received, recorded and addressed by the project within two weeks." However, no complaints have been received yet. The AF will seek to: (i) revitalize the GRM committees by relooking at their composition and number; (ii) task the social expert who will be hired under the AF with the operationalization of the GRM as a priority; (iii) widen the communication about the GRM within the community; and (iv) strengthen the GRM digital component. In addition to the social facilitation action plans mentioned in the previous paragraph, the AF urban and climate resilience planning documents will be prepared in consultation with LGs, deconcentrated services, private sector actors and civil society



representatives including vulnerable groups, in line with the provisions of the new Urban Law.

C. Financial Management

39. **The PCU will continue to manage the overall fiduciary responsibilities for the AF.** The Financial Management (FM) of the AF will be based on the existing FM arrangements of the parent project. The parent project continues to maintain adequate FM and disbursement arrangements, which are well functioning. There are no overdue unaudited IFRs or audit reports. The overall FM performance of the parent project, following the last FM supervision mission was rated “Satisfactory” and the financial risk was deemed Moderate. However, the external audit reports of 2022 received in June 2023, were issued with qualified opinion mainly due to: (i) the delay in the payment of certain project withholding taxes; and (ii) some expenditures from counterpart funds that do not comply with applicable provisions. The PCU is currently developing an action plan to address these qualifications. The PCU is adequately staffed with experienced and qualified personnel for FM to continue to handle the workload of the project. For the AF, there is no need to recruit other FM staff. The existing FM procedures manual will be used under the AF.
40. **The AF’s funds flow will follow the arrangements used in the parent operation.** There is no need to open a new Designated Account (DA). The DA used to receive the initial financing proceeds will be used to receive the AF proceeds. As in the parent project, the disbursements will be based on unaudited IFR. Other disbursement methods such as reimbursement, special commitment and direct payment will also apply. Additional instructions for disbursement would remain the same and would be provided in the AF Disbursement and Financial Information Letter. Withdrawals up to SDR 1.53 million (US\$2.01 million equivalent) may be made for payments made prior to the signature date but on or after March 1, 2023, for eligible expenditures. The AF accounts will be kept in the existing TomPro accounting software. However, the accounting system needs to be calibrated to fit the AF needs. As in the parent project, the PCU will prepare and submit acceptable unaudited IFRs to the World Bank within 45 days after the end of each quarter including information related to the AF. No separate audit report would be required with respect to the AF, which will be added to the financial statements of the parent project with separate disclosures in the notes to the financial statements. The audits will be conducted based on International Standards on Auditing, by a firm acceptable to the World Bank. Such an audit report will be submitted to the World Bank on a yearly basis, along with the respective management letters within six months of the end of the fiscal year.
41. **The residual FM risk for the project, after the mitigating measures, is assessed to be Moderate.** To satisfy the World Bank's minimum requirements under the World Bank's Investment Project Finance Policy and Directive, the PCU will need to implement the following measures. The PCU, within one month after effectiveness, will: (i) update the FM manual to include the implementation of the added subcomponent; (ii) migrate the existing TomPro accounting software to include the AF activities; and (iii) extend the terms of reference of the external auditor to cover the AF activities.

D. Procurement

42. **The procurement of the AF will be based on the existing procurement arrangements of the parent project.** The parent project’s procurement performance is rated “Satisfactory” in the last ISR. The PCU team in charge of procurement currently comprises a person in charge of procurement, a procurement specialist and a procurement assistant. They have the necessary skills and experience and can continue to execute the contracts planned under the AF. The procurement specialist based in Kiffa has left and should be replaced.



As part of the AF preparation, the main issues that arose during the execution of the parent project procurement plan as well as the update of the parent project procurement strategy for development (PPSD) were discussed with the PCU. The procedures manual will be updated to reflect AF changes.

- 43. **The residual procurement risk is Moderate.** The mitigating measures proposed to improve the quality of project procurement are to: (i) update of the administrative and financial procedures and procurement manual; (ii) recruit a procurement specialist to reinforce the PCU; and (iii) provide training on the New Procurement Policy for Investment Projects to the Coordinator, the procurement responsible and specialists and the procurement commission members— as this AF is subject to the World Bank's new Procurement Framework (NPF).
- 44. **New Procurement Framework.** The AF will be subject to the NPF. Procurement of the AF will be carried out in accordance with the procedures specified in the World Bank’s “Procurement Regulations for IPF Borrowers”, dated September 2023, and the World Bank’s “Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants” dated October 15, 2006 and revised in January 2011 and as of July 1, 2016, will continue to be applied. The PCU has updated the PPSD to include the newly added Subcomponent – no major changes were introduced following the AF. Support by the World Bank was provided to develop this Strategy prior to negotiations along with the AF's procurement plan for the first 18 months.

E. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

- 45. **OP 7.50 is applicable to this AF²⁷ because the AF will finance activities that may use or risk polluting waters of the Senegal River and/or their tributaries, which is considered international waterway.** The exceptions to the riparian notification requirement according to paragraphs 7(a) and (b) of the Policy apply. Activities are limited to upgrading and modernization of existing, small-scale schemes in Kaédi and Rosso, which will not adversely change the quantity and quality of water flows to other riparians. The cleaning and rehabilitation of canals will ensure efficient drainage by the existing system and is expected to reduce the risk of polluting the Senegal River as solid waste will be removed from the canals and disposed in a sanitary landfill. The flood protection infrastructure will be constructed with nonpolluted material. The risk of pollution in the Senegal River by pollutants due to accidental spillage during dredging works and from the construction and operation of the landfill is assessed as negligible. The exception to the notification requirement was approved by the World Bank Regional Vice President on October 24, 2023.

F. Environmental and Social

- 46. **In terms of the Environmental and Social Framework, the parent project prepared, consulted upon, and disclosed all required plans.** The E&S instruments of the parent project have been disclosed in-country and

²⁷ Due to a system glitch, the table above shows OP7.50 is not triggered, but it is triggered.



on the World Bank website.²⁸ The last E&S rating (April 2023) was MS due to: (i) delays in preparing E&S instruments; and (ii) gaps noted in the implementation of occupational health and safety (OHS) by civil works contractors. Drawing lessons from a serious accident that took place under the parent project, the World Bank organized a three-day training session on OHS, bringing together the PCU, the SOMELEC Project Management Unit and LGs to improve incident risk management. The gaps were addressed through an action plan that is closely followed up with the PCU.

47. **In addition to the E&S framework documents, site-specific ESIA's are being prepared by the client and two of them were approved by the World Bank and disclosed.** Advanced draft of ESIA's for other investments should be approved soon. The draft ESIA's for urban roads indicate that specific resettlement action plans will be required. If confirmed, these will be prepared and implemented before the start of civil works. E&S clauses are embedded in bidding documents for civil works to enable contractors to follow up on E&S due diligence and to mitigate the anticipated negative risks and impacts. Day-to-day supervision of the implementation of E&S measures by the constructor is carried out by the supervising engineer (*Bureau de contrôle*), staffed with E&S specialists. The PCU, as well as the SOMELEC Project Management Unit, include E&S specialists.
48. **The AF intends to rehabilitate existing drainage networks with outlet into the Senegal River.** Clandestine sewage connections into the stormwater drainage network could be a source of pollution in the Senegal River. This risk triggered ESS 6 which did not apply to the parent project. Therefore, the E&S risk management instruments (ESMF, RPF, and SEP) which were prepared for the parent project have been updated to cover the AF activities and were disclosed.²⁹ Additional ESIA's for the AF investments will be prepared as per ESRS requirements (e.g., ESIA's for the Kaédi landfill and the rehabilitation of drainage systems in Kaédi and Rosso).
49. **Grievance Mechanism (GRM).** GRM operationalization is underway. The PCU has reviewed committees' composition and designated focal points at the level of the parent project's intervention areas. The GRM will be extended to Kaédi. An SEA/HS action plan was also developed and validated by the World Bank.

V. WORLD BANK GRIEVANCE REDRESS

50. **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 GRS, please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank's AM, please visit <https://accountability.worldbank.org>.

²⁸ SEP January 20, 2020 / ESMF: January 27, 2020 / RPF: January 31, 2020 / LMP: January 31, 2020 / ESCP March 9, 2020.

²⁹ See footnote 23 for disclosure dates.

**VI SUMMARY TABLE OF CHANGES**

	Changed	Not Changed
Results Framework	✓	
Components and Cost	✓	
Loan Closing Date(s)	✓	
Implementing Agency		✓
Project's Development Objectives		✓
Cancellations Proposed		✓
Reallocation between Disbursement Categories		✓
Disbursements Arrangements		✓
Legal Covenants		✓
Institutional Arrangements		✓
Financial Management		✓
Procurement		✓

VII DETAILED CHANGE(S)**COMPONENTS**

Current Component Name	Current Cost (US\$, millions)	Action	Proposed Component Name	Proposed Cost (US\$, millions)
Improving Access to Infrastructure and Services for Economic Development	51.00	Revised	Improving Access to Infrastructure and Services for Economic Development	80.00
Strengthening Decentralization and Local Government Capacity	8.00	No Change	Strengthening Decentralization and Local Government Capacity	8.00
Project Management	7.00	Revised	Project Management	10.50
Contingency Emergency Response Component	0.00	No Change	Contingency Emergency Response Component	0.00



TOTAL	66.00		98.50
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LOAN CLOSING DATE(S)

Ln/Cr/Tf	Status	Original Closing	Current Closing(s)	Proposed Closing	Proposed Deadline for Withdrawal Applications
IDA-D5750	Effective	31-May-2025	31-May-2025	31-Dec-2027	30-Apr-2028

Expected Disbursements (in US\$)

Fiscal Year	Annual	Cumulative
2020	0.00	0.00
2021	7,153,782.04	7,153,782.04
2022	6,571,398.16	13,725,180.20
2023	2,616,405.00	16,341,585.20
2024	7,886,661.72	24,228,246.92
2025	12,754,350.62	36,982,597.54
2026	16,192,938.27	53,175,535.81
2027	17,192,938.27	70,368,474.08
2028	20,631,525.92	91,000,000.00

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Latest ISR Rating	Current Rating
Political and Governance	● Substantial	● Substantial
Macroeconomic	● Moderate	● Moderate
Sector Strategies and Policies	● Low	● Low
Technical Design of Project or Program	● Low	● Low
Institutional Capacity for Implementation and Sustainability	● Moderate	● Moderate
Fiduciary	● Substantial	● Moderate
Environment and Social	● Substantial	● Substantial
Stakeholders	● Low	● Low



Other	● Moderate	● Moderate
Overall	● Moderate	● Moderate

LEGAL COVENANTS – Decentralization and Productive Intermediate Cities Support Project AF (P181311)

Sections and Description

Financing Agreement Schedule 2, Section I.A.3: The Recipient shall, no later than two (2) months after the Effective Date, enter into a delegated management contract with ONAS, to clarify their respective roles and responsibilities for the implementation of the civil works under Part 1.3(b) of the Project.

Financing Agreement Schedule 2, Section I.B.1.a : The Recipient shall, no later than one (1) month after the Effective Date, update the Project Operations Manual in form and substance acceptable to the Association, for the purpose of integrating the detailed information on all aspects of implementation of Part 1.3 of the Project, including: (i) fiduciary functions and requirements, organization and human resource management; (ii) environmental and social safeguards; (iii) procurement, financial management, accounting and disbursements; and (iv) monitoring, evaluation and internal audits.

Conditions



VIII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Mauritania

Decentralization and Productive Intermediate Cities Support Project AF

Project Development Objective(s)

The development objectives of this operation are to (i) improve access to local services in selected localities; and (ii) strengthen the capacities of Local Governments to plan and manage local public services.

Project Development Objective Indicators by Objectives/ Outcomes

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Improve access to local services in selected Localities (Action: This Objective has been Revised)									
People provided with improved access to services through the project (Number)		0.00	0.00	0.00	50,000.00	60,000.00	80,000.00	120,000.00	170,000.00
Action: This indicator has been Revised	Rationale: This target was revised upward to take into consideration the AF beneficiaries. Targets were added for the outer years of the AF.								
Disaggregated by women (Number)		0.00	0.00	0.00	25,000.00	30,000.00	40,000.00	60,000.00	85,000.00



Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Action: This indicator has been Revised	Rationale: <i>This target was revised upward to take into consideration the AF beneficiaries (flood management). Targets were added for the outer years of the AF.</i>								
Disaggregated by refugees (Number)	0.00	0.00	0.00	0.00	0.00	0.00	12,000.00	18,000.00	25,000.00
Action: This indicator has been Revised	Rationale: <i>The target of this indicator is not changed because there are no refugees in the newly added city of Kaédi. Targets were revised to reflect implementation realities. Targets were added for the outer years of the AF.</i>								
Beneficiary local economic actors in targeted localities positively impacted by the infrastructures financed by the project (Percentage)	0.00	0.00	0.00	0.00	20.00	35.00	50.00	70.00	
Action: This indicator has been Revised	Rationale: <i>This indicator was reformulated to take into consideration informal and formal business activities. The indicator is expanded to include Kaédi the AF newly added city.</i>								
Disaggregated by women-owned businesses (Percentage)	0.00	0.00	0.00	0.00	20.00	35.00	50.00	70.00	
Action: This indicator has been Revised	Rationale: <i>Targets were changed to reflect implementation realities. Targets were added for the outer years of the AF.</i>								
Disaggregated by refugee-owned businesses	0.00	0.00	0.00	0.00	20.00	35.00	50.00	70.00	



Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
(Percentage)									
Action: This indicator has been Revised	Rationale: 70 percent of the refugee-owned enterprises possibly impacted by the infrastructure.								
Electricity connections created as a result of the project (Number)	0.00	0.00	0.00	0.00	0.00	0.00	1,500.00	2,000.00	4,500.00
Action: This indicator has been Revised	Rationale: Targets were pushed back to reflect implementation delays.								
Including for refugee and host communities (Number)	0.00	0.00	0.00	0.00	0.00	300.00	500.00	700.00	1,000.00
Action: This indicator has been Revised									
Urban area in Kaédi and Rosso protected against recurrent flooding through drainage works (Hectare(Ha))	0.00	0.00	0.00	0.00	0.00	0.00	15.00	30.00	50.00
Action: This indicator is New	Rationale: Newly added indicator to capture the AF results.								
Strengthen the capacities of Local Governments to plan and manage local public services									
Increase in Annual Investment Budget execution of targeted municipalities	0.00	0.00	5.00	15.00	25.00				30.00



Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
(Percentage)									
Action: This indicator has been Marked for Deletion	Rationale: This indicator became less relevant since the municipalities are not implementing most of the works under Subcomponent 1.1. It was replaced.								
Operations and maintenance plans developed, approved and implemented in targeted municipalities (Number)	0.00	0.00	0.00	0.00	2.00	3.00	4.00	5.00	
Action: This indicator is New	Rationale: Municipalities are no longer executing the works but are in charge of operating and maintaining their assets and will receive technical assistant to this effect. To improve the link between components 1 and 2, this new indicator is proposed.								

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Improving Access to Infrastructure and Services for Economic Development									
Length of all-seasoned roads built by the project (Kilometers)	0.00	0.00	0.00	0.00	0.00	5.00	15.00	25.00	
Action: This indicator has been Revised	Rationale: Targets were pushed back to reflect implementation delays.								



Indicator Name	PBC	Baseline	Intermediate Targets						End Target	
			1	2	3	4	5	6		
Quantity of waste collected and properly treated (Metric ton)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,000.00	12,000.00
Action: This indicator has been Revised	Rationale: <i>Targets were pushed back and revised downwards to reflect implementation realities (based on technical studies).</i>									
Investment Selection Committees with at least 30 percent women and, where relevant, one refugee representative (Number)		0.00	1.00	2.00	2.00	3.00	5.00	5.00	5.00	7.00
Action: This indicator has been Revised	Rationale: <i>Extended throughout project duration.</i>									
Electricity output from renewable energy constructed or rehabilitated (Megawatt hour(MWh))		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
Action: This indicator has been Revised	Rationale: <i>Targeted are pushed back to reflect implementation delays.</i>									
Urban and climate resilience planning documents developed (Number)		0.00	0.00	0.00	0.00	2.00	5.00	7.00	7.00	10.00
Action: This indicator is New	Rationale: <i>Newly added indicator to capture the AF results.</i>									



Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Length of drainage canals cleaned, dredged or rehabilitated in Kaédi and Rosso (Kilometers)		0.00	0.00	0.00	0.00	3.00	10.00	15.00	20.00
Action: This indicator is New	Rationale: Newly added indicator to capture the AF results.								
Public officials from LGs and line ministries trained in urban and climate resilience (Number)		0.00	0.00	0.00	0.00	20.00	30.00	50.00	100.00
Action: This indicator is New	Rationale: Newly added indicator to capture the AF results.								
Disaggregated by women (Number)		0.00	0.00	0.00	0.00	1.00	2.00	3.00	5.00
Action: This indicator is New									
Strengthening Decentralization and Local Government Capacity									
Local/Municipal Development Plans approved (Number)		0.00	5.00	6.00	6.00	6.00	6.00	6.00	8.00
Action: This indicator has been Revised	Rationale: This indicator was reformulated. Regional development plans were not financed under the parent operation, given limited traction of this reform. The target of this indicator has already been met for the local/municipal plans.								
Investment Plans between the National		0.00	0.00	1.00	2.00	3.00			3.00



Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Government and Regions signed (Number)									
Action: This indicator has been Marked for Deletion	Rationale: <i>Regional development plans were not financed under the parent operation, given limited traction of this reform.</i>								
Activities in work plans completed for national level agencies/institutions targeted under the project (Percentage)	0.00	0.00	0.00	0.00	20.00	30.00	50.00	70.00	
Action: This indicator is New	Rationale: <i>This new indicator replace Component 2's intermediate indicator marked for deletion.</i>								
Municipalities with increased own-source revenue generated from project interventions (Number)	0.00	1.00	2.00	4.00	5.00	6.00	7.00	7.00	
Action: This indicator has been Revised	Rationale: <i>This indicator was reformulated because the percentage increase of own-revenue mobilization cannot be realistically measured in the outer years of implementation, given that municipalities improved significantly their own-revenue mobilization in the early years of implementation. The new formulation is on number of municipalities with improved revenue collection, and it will focus on the impact of the activities of the project on revenue mobilization.</i>								
Local public officials from LG and line ministries trained in LG PFM or HRM (Number)	0.00	50.00	100.00	200.00	220.00	250.00	275.00	300.00	
Action: This indicator has been Revised	Rationale: <i>Targets were revised to reflect implementation realities. Targets were added for the outer years of the AF.</i>								



Indicator Name	PBC	Baseline	Intermediate Targets						End Target	
			1	2	3	4	5	6		
Project Management										
Grievances received, recorded and addressed by the project within 2 weeks (Percentage)		0.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00
<i>Action: This indicator has been Revised</i>	<i>Rationale: Targets were added for the outer years of the AF.</i>									
Refugee and host community grievances received, recorded and addressed by the project within 2 weeks (Percentage)		0.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00
<i>Action: This indicator has been Revised</i>	<i>Rationale: Targets were added for the outer years of the AF.</i>									

Monitoring & Evaluation Plan: PDO Indicators						
Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection	
People provided with improved access to services through the project	This indicator captures the number of people benefiting from various types of services such as	Annual survey and semi-annual estimation	Progress reports by PCU and annual	In each targeted locality, the PCU will conduct: (i) surveys on an annual basis; and (ii) an	PCU.	



	electricity, market, waste management, road, as a result of the project. For the AF, it will also include an extra service, i.e., flood management response infrastructure.	based works progress.	surveys.	estimate based works' contract progress-- to evaluate the number of beneficiaries who are accessing services provided under the project. The methodology will be refined in the POM.	
Disaggregated by women	Disaggregation by female beneficiaries.	Annual survey and semi-annual estimation based works progress.	Progress reports by PCU and annual surveys.	In each targeted locality, the PCU will conduct: (i) surveys on an annual basis; and (ii) an estimate based works' contract progress-- to evaluate the number of women who are accessing services provided under the project. The methodology will be specified in the POM.	PCU.
Disaggregated by refugees	Refugees are located in Adel Bagrou, Aioun, Bassikounou, M'béra Camp and Néma	Annual survey starting 2023 / and semi-annual estimation based works progress	Progress reports by PCU and annual surveys.	In each targeted locality, the PCU will conduct: (i) surveys on an annual basis; and (ii) an estimate based works' contract progress-- to evaluate the number of beneficiaries who are	PCU



				accessing services provided under the project. The methodology will be specified in the POM.	
Beneficiary local economic actors in targeted localities positively impacted by the infrastructures financed by the project	This indicator captures the number of local economic actors positively impacted by the various types of services financed by the project such as electricity, market, waste management, road, etc. As of April 2023, the PCU counted 16 local business and 11 national businesses- however, the percentage will be calculated based on a survey that will be carried out by a consultant in the forthcoming months.	At mid-term and prior to closing of the project.	Survey conducted at mid-term and prior to closing of project.	A baseline evaluation was conducted in 2021. A new baseline survey will be conducted in Kaédi in 2024. A mid-term evaluation will be conducted and a closing evaluation will be conducted in 2026-- focusing on local economic actors benefiting from the infrastructure financed by the project and the AF. The survey methodology will be refined in the POM.	PCU.
Disaggregated by women-owned businesses	70 percent of the women-owned enterprises possibly impacted by the infrastructure.	Mid-term survey and closing survey.	Mid-term survey and closing survey.	The survey conducted at mid-term and prior to closing will include specific questions to enable the disaggregation of by women-owned businesses.	PCU.



Disaggregated by refugee-owned businesses		Mid-term survey (2024) and closing survey (2026)	Mid-term survey (2024) and closing survey (2026)	The survey conducted at mid-term and prior to closing will include specific questions to enable the disaggregation of by refugee-owned businesses.	PCU
Electricity connections created as a result of the project	The targets were revised to reflect implementation realities.	Semi-annual.	Customer database maintained by SOMELEC and private investors in rural areas.	SOMELEC and the private investors in rural areas will keep record the number of connections as a result of the project.	PCU and SOMELEC.
Including for refugee and host communities		Semi-annual	Customer database maintained by SOMELEC and the private investors in rural areas	SOMELEC and the private investors in rural areas will keep record the number of connections created for refugees and hos communities as a result of the project.	PCU and SOMELEC
Urban area in Kaédi and Rosso protected against recurrent flooding through drainage works	Total areas in hectare protected against a 10-year flood return period. Calculated by drained	Annual starting 2025.	Civil works progress and closing evaluation.	Monitoring through reports by civil works and hydraulic engineers under the PCU	PCU and TA firm.



	surface and underground in all the catchments impacted by the civil works.			and by the TA firm.	
Increase in Annual Investment Budget execution of targeted municipalities	This indicator became less relevant since the municipalities are not implementing most of the works under sub-component 1.1. It needs to be reviewed in the forthcoming project restructuring.	Annual		The methodology to measure the indicator will be defined in the MOP.	Ministry in charge of Decentralization
Operations and maintenance plans developed, approved and implemented in targeted municipalities	This indicator measures the development, adoption, and implementation of O&M plans in the targeted municipalities. The details of the level of implementation required will be defined in the POM.	Annual.	The implementation rate will be assessed based on the progress reports provided by the PCU and municipalities.	Execution rate is calculated based on report provided by each municipality.	PCU and municipalities.



Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Length of all-seasoned roads built by the project	Number of kilometers of all-seasoned roads constructed as part of the project.	Semi-annual.	Progress reports from PCU.	The PCU will aggregate the number of km of road built as measured in the field and reported by the field engineer in their monthly reports.	PCU and Municipalities.
Quantity of waste collected and properly treated	Yearly volumes of SW either recycled or disposed at sanitary landfills or rehabilitated dumpsites, as a result of Project interventions.	Annual.	Waste volume datasheets prepared by targeted municipalities.	The PCU in coordination with targeted municipalities will aggregate the volume of waste recorded at each of the waste collection facility constructed under the project.	PCU and Municipalities.
Investment Selection Committees with at least 30 percent women and, where relevant, one refugee representative	This indicator assesses the level of inclusion of women and refugees in the selection committees.	Annual.	Municipal decree creating the investment committee.	The PCU will review the composition of the investment committee in each municipal decree to determine whether the threshold of 30 percent women and one refugee representative is met or not.	PCU.
Electricity output from renewable energy constructed or rehabilitated	Number of MW of electricity produced using	Semi-annual	Energy production	SOMELEC and the private investors in rural	PCU and SOMELEC



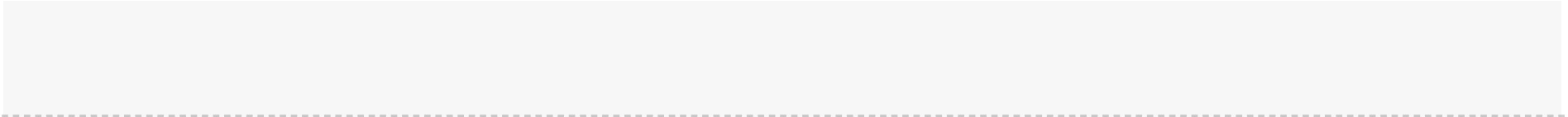
	renewable energy such as solar, wind, etc, as a result of Project interventions. As of April 2023, the studies are ongoing for the electricity subcomponent- this indicator cannot yet be measured.		database maintained by SOMELEC and the private investors in rural areas	areas will keep record of the number of MW produced using renewable energy such as solar, wind, etc, communities as a result of the project	
Urban and climate resilience planning documents developed	Urban and climate resilience planning documents should be prepared in accordance with the newly adopted Urban Law	Once	Ministry in charge of urbanism / PCU / Municipalities	Technical documents are produced.	PCU
Length of drainage canals cleaned, dredged or rehabilitated in Kaédi and Rosso	This indicator measures the total length, in kilometers, of drainage networks established.	Annual	Progress reports / missions / on-site visits.	Monitoring of progress reports, on-site visits, quality control by civil work engineers and the TA.	PCU.
Public officials from LGs and line ministries trained in urban and climate resilience	This indicator measures the number of municipal and national staff participating in training on urban and climate resilience such as, disaster risk management, anti-littering, flood management (including O&M) and climate change resilience.	Annual	Progress reports	Training reports	PCU



Disaggregated by women		Annual	Progress reports	Training reports	PCU
Local/Municipal Development Plans approved	Local/municipal development plans prepared through the project are officially adopted by the relevant municipal council.	Annual.	Deliberation of the Municipal Council approving the plan.	The PCU will review each deliberation of the Municipal Council approving the plan.	PCU.
Investment Plans between the National Government and Regions signed		Annual	Signed investment plans between National Government and Regions	The PCU will review each plan to ensure that proper signatures have been obtained.	PCU
Activities in work plans completed for national level agencies/institutions targeted under the project	This indicator measure the level of execution of the agreements signed between the PCU and the national level agencies/Institutions targeted by the project.	Annual.	Agreements between the PCU and national level agencies/Institutions targeted by the project.	Actions plans are included under the agreements.	PCU / national level agencies/institutions targeted by the project.
Municipalities with increased own-source revenue generated from project interventions	The own-source revenues are the one generated with support from project interventions, including the Mouhassil software system.	Annual.	Municipal revenue records maintained by the Department of Local	The PCU in collaboration with the Department of Local Finance at the Ministry of Finance will aggregate the annual own-revenue	PCU and the Department of Local Finance at the Ministry of Finance.



			Finance.	mobilization by all targeted municipalities under the Project. The specific increase for each municipality will be reported on separately and documented in annual project reports.	
Local public officials from LG and line ministries trained in LG PFM or HRM	The indicator measures the number of public officials from municipalities, deconcentrated services and ministries who receive training in Public Finance Management and Human Resource Management.	Annual.	Progress reports from PCU.	The PCU will determine the number of people who have benefited from capacity building training through attendance sheets--ensuring no double counting.	PCU.
Grievances received, recorded and addressed by the project within 2 weeks	Percentage of project-related grievances received, recorded and acted upon within two weeks.	Semi-annual.	GRM and progress reports by PCU.	The GRM was designed to keep track of this indicator.	PCU.
Refugee and host community grievances received, recorded and addressed by the project within 2 weeks	Percentage of project-related grievances received from refugees and host communities, recorded and acted upon within two weeks.	Semi-annual.	GRM and Progress reports by PCU.	The GRM was designed to keep track of this indicator.	PCU.





Annex 1: Greenhouse Gases Emission (GHG) Analysis

- 1. SWM is a global issue affecting the environment, public health, wildlife, GDP, and sustainable development.** Ineffective SWM practices lead to air pollution, climate change, soil and water contamination, vector borne diseases, adverse effects on tourism, endangering wildlife, and fire hazards. SWM plays a crucial role in mitigating GHG emissions and addressing climate change. GHG are released during the decomposition of organic waste. However, implementing effective and sustainable SWM strategies can significantly reduce these emissions, contribute to global climate goals, and create a more sustainable future. An analysis of GHG emissions generated by SWM investments is underway in line with the World Bank's environmental strategy.
- 2. Methodology.** The analysis was based on two scenarios (BAU [open dumping] and the AF scenario [construction of shallow/unmanaged landfill less than five meters deep and SWM support]) to estimate the net emission that could result from the SWM activity in Kaédi. An additional scenario was added in the GHG emissions analysis, which reduced organic food waste from 44.8 percent to 30 percent.³⁰ The formulas were derived from The Climate Action for Urban Sustainability Tool used to assess existing and potential emissions of waste treatment. It is based on the methodology of the Intergovernmental Panel on Climate Change. The CURB tool requires exact data inputs and cannot be used for low municipal solid waste generated in Kaédi (6,474 t/year). Doing manual calculations aids in extrapolation in the absence of proxy city data and to know the role of each waste composition in the waste stream. The SWM activities in Kaédi are key to ensure an integrated flood risk reduction solution in the city and for future efficient operations and maintenance. Kaédi surrounds the Senegal River and has an estimated urban population of 50,000 as of 2022. The analysis covers a life cycle from 2023 to 2043 for the SWM activities.
- 3. Background and BAU Scenario.** SWM is a critical issue in all cities of Mauritania. SWM in Mauritania is a municipal responsibility, but municipalities do not have sufficient financial and human resources to effectively manage solid waste. Mauritania submitted updated NDCs in 2021, with a new target to cut GHG emissions by 11 percent in 2030. The commitments cover energy, agriculture, land use and forestry, and waste sectors. The current solid waste emissions are at 3.91 percent of GHG emissions.³¹ Despite its low contribution to the country's GHG emissions, the waste sector constitutes a real development challenge.
- 4. AF Scenario.** Sanitary landfills offer controlled waste disposal, preventing the release of hazardous substances into the air, soil, and water. This would help protect the local ecosystem, prevent soil and water contamination, and preserve the natural environment. Mauritania has significant mitigation potential, particularly in terms of renewable energies and, to a lesser extent, in the waste sectors. With the AF, a landfill will be constructed, and dry sorted material (cardboard, paper, glass, metal and plastic) will be transported to recycling facilities - average distance of 10 kilometers round trip, considering many customers will transport the recyclable materials themselves. Based on the waste reduction scenario supported by the AF, the goal would be to increase recyclables from 8 percent to 20 percent of total municipal solid waste. Another factor of consideration in GHG emissions is the transportation and maintenance sectors, however in the case of Kaédi, transportation does not play a role. Waste collection would primarily be done on a small locality basis by the use of tricycle carts.

³⁰ The AF will encourage separation at the source so that certain types of waste are redirected away from the landfill and therefore reduce waste transportation, in particular: (i) green waste (improved collection will deter households from disposing of it in the trash); and (ii) sand (from sweeping) and rubble, which are very common in similar towns along the Senegal River Valley.

³¹ <https://unfccc.int/sites/default/files/resource/BUR2-MAURITANIE-VF.pdf>



5. **Mitigation measures introduced by the AF in Kaédi.** Compared with similar cities in different climate and cultural settings, SWM in Kaédi will likely not emit significant methane, for the following reasons: (i) the organic fraction of waste is lower relative to other lower-middle income countries; (ii) waste layers compaction will be very partial as no heavy machinery is planned; and (iii) Mauritania's arid climate means that waste can be dehydrated fairly efficiently throughout the collection chain, which greatly reduces the risk of active fermentation. For these reasons and because of the lack of skilled labor to manage such facility, the technical assessment concluded that biogas management solutions are not adequate for the Kaédi landfill. For a financial assessment, finding estimates for cities with similar conditions as Kaédi is difficult, — as this type of biogas investment is normally only found in cities of a much larger size and more humid climate. Based on numbers from Lagos, it is estimated that minimal biogas management would add more than 15-20 percent of the cost of investment only for equipment and workers. Given the lack of demand (biogas is hardly used), a gas capture investment is therefore not financially viable. However, other measures would be undertaken by the AF to reduce emissions through: (i) providing a dewatering area on the landfill platform for loads with a significantly higher-than-average organic fraction, which could then be left for 8 to 24 hours before burial; (ii) treating loads from specific sources such as markets or slaughterhouses; and (iii) sorting at the source (e.g., for green waste, sand and paper/cardboard).
6. **Calculations.** Solid waste data for Mauritania was obtained from World Bank What a Waste portal. The following assumptions were made:
- Waste projections increase was based on population growth trajectory at an average growth rate of 2.5 percent for the years between 2016-2043.
 - Kaédi's urban population was assumed to be 50,000 for the current year (2022) and projected at the rate of increase of 2.5 percent until the year 2043 at approximately 97,000 inhabitants.
 - Organic food waste listed under What a Waste Portal was at 4.8 percent and the "other" waste category was uncharacteristically too high at nearly 60 percent. Based on consulting with SWM experts, Sub-Saharan data, and data from other low-income countries, and from the municipality of Kaédi the 40 percent of solid waste from the "other" category was replaced with the organic food waste category to ensure more alignment with similar data.
 - GHG emissions were calculated for the country of Mauritania and extrapolated based on average per capita waste generation for Kaédi.
 - The waste collection was considered done at 100 percent to simplify the comparison of the scenarios.
7. **GHG emissions are based on the formulas presented below.**
- DOCMSW = % of food waste × 0.15 + % of garden waste × 0.43 + % of paper waste × 0.4 + % of textile waste × 0.24.** Where:
 - DOC is Degradable Organic Carbon of Municipal Solid Waste.
 - Four waste compositions are used in this formula: (i) organic food; (ii) garden; (iii) paper cardboard; and (iv) textile waste.
 - In the case of Mauritania, data for organic food waste is estimated at 44.8 percent of total MSW and paper/cardboard at 7.3 percent.
 - There was no data available for green/garden or textile waste. Country wide data was used to extrapolate data for Kaédi.
 - CH₄ Emissions = [Σi(mi × DOCi)] × MCF × DOCF × F × 1.33 × (1-frec) × (1-OX).** Where:
 - i = Type of waste undergoing landfill disposal such as paper/cardboard, textiles, organic waste food, rubber/leather plastics, metal, glass, and miscellaneous waste.



- DOCi = Degradable Organic Carbon content in waste type I
- MCF = Methane Correction Factor = 1 for managed landfills, 0.8 for unmanaged landfills more than 5 meters deep, 0.4 for unmanaged landfills less than 5 meters deep, or 0.6 for uncategorized landfills
- DOCF = DOC Fraction that is ultimately degraded = 0.6
- F = Fraction of methane in landfill gas = 0.5
- 1.33 = Stoichiometric ratio between methane and carbon
- frec = Fraction of methane recovered
- OX = oxidation factor = 0 for unmanaged landfills and 0.1 for managed landfills
- To calculate the CO₂ eq factor of the emissions, a global warming potential factor of 28 was used.

Table 1.1: Estimated waste database in Kaédi

Waste Composition	Value	Kaédi Tons/Year (2016)
Food organic (percent)	44.8	2,900
Glass (percent)	4	259
Metal (percent)	4.2	272
Other (percent)	19.7	1,275
Paper cardboard (percent)	7.3	437
Plastic (percent)	20	1,295
Estimated urban population of Kaédi (2022)	50,000	
Total MSW generated (tons year minus e waste)	6,474	

Source: Extrapolation for Kaédi from the What a Waste Portal Mauritania country data

Table 1.2: GHG Emissions Analysis Results (Economic lifetime: 2023-2043)

Kaédi	Without landfill (open dumping)	With landfill (shallow unmanaged, accumulative emissions for 2023-2043)	With landfill (shallow unmanaged, average annual emissions)	With landfill (shallow, unmanaged, accumulative emissions, by reducing organic food waste from 44.8% to 30%, for 2023-2043)
Landfill CH ₄ emissions (t/y)	4,828	3,219	169	2,477
Landfill emissions (tCO ₂ e)	135,178	90,119	4,743	69,365

Source: World Bank calculations based on above formulas

8. **Conclusion.** The overall impact of the landfill investment would be positive through the environmental lens. Through the climate lens, the AF landfill project would reduce the overall GHG emission footprint in Kaédi by approximately 33 percent. With the waste reduction scenarios and increased recycling, the GHG emission footprint in Kaédi would improve by approximately 50 percent. The SWM AF activities would improve the life, health, environment, and social needs of the people of Kaédi.