



Additional Financing Appraisal Environmental and
Social Review Summary
Appraisal Stage
(AF ESRS Appraisal Stage)

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BASIC INFORMATION

A. Basic Project Data

Country	Region	Borrower(s)	Implementing Agency(ies)
Senegal	WESTERN AND CENTRAL AFRICA	Republic of Senegal	Municipal Development Agency (Agence de Développement Municipal - ADM)
Project ID	Project Name		
P180203	Additional Financing for Stormwater Management and Climate Change Adaptation Project 2		
Parent Project ID (if any)	Parent Project Name		
P175830	Stormwater Management and Climate Change Adaptation Project 2		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Urban, Resilience and Land	Investment Project Financing	3/23/2023	5/30/2023

Proposed Development Objective

To reduce flood risks in peri-urban areas of Dakar and improve capacity for integrated urban flood risks planning and management for selected cities in Senegal.

Financing (in USD Million)	Amount
Current Financing	172.40
Proposed Additional Financing	145.70
Total Proposed Financing	318.10

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

Public Disclosure



C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]

The proposed project has 4 components: (1) Integrated urban planning and management accounting for climate risk and sustainability with the objective to integrate climate risk and sustainability in urban planning and management; (2) Drainage investment and management, community engagement, environmental and social management with the objective to reduce the risk of flooding in select peri-urban of Dakar; (3) Contingent Emergency Response Component to provide funding for immediate response in the event of an eligible crisis or emergency, defined as an event that has caused or is likely to imminently cause a major adverse economic and/or social impact associated with natural or man-made crises or disasters; and (4) Project management to finance incremental project management costs for the implementing and technical agency, financial and technical audits, monitoring and evaluation of project activities (including gender disaggregated data), implementation of the environmental and social framework, operating the grievance redress mechanism, citizen engagement, communication, technical assistance and consultant services, training and knowledge exchange.

D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

This Additional Financing (AF) will be implemented in Keur Massar Nord, which belongs to the Mbeubeuss watershed and in Kounoune-Sangalkam sub-watershed of the Lac Rose watershed (LRBV) including the commune of Sangalkam, Bambilor and partially that of Tivaouane Peulh Niaga. This AF will maintain the Parent Project (PP) PDO: “To reduce flood risks in peri-urban areas of Dakar and improve capacity for integrated urban flood risks planning and management for selected cities in Senegal”.

These two areas targeted under the AF, were the epicenters of flooding during the 2022 rainy season and thus become the priority areas identified by the State of Senegal, requiring urgent intervention to tackle Flood risk exposure and restore livelihoods. The Keur Massar North belongs to the Mbeubeuss catchment area and is the only flood-prone area in the Drainage Master Plan (DMP) that has not yet been treated. It is located in the extreme north-east of the Commune of Keur Massar Nord on the way to Tivaouane Peul (covering about 15,000 inhabitants). The said area is devoid of rainwater drainage networks and has experienced significant flood damage during the winter of 2022.

The LRBV which is the second area of intervention of the AF, covers 5 sub-watersheds (Bambilor, Diack Sao, Deny, Kounoune-Sangalkam et Tawfekh-Niaga). The activities of the AF will focus on the sub-watershed of Kounoune-Sangalkam which has the highest rate of urbanization. This sub-watershed is composed of 28 rapidly growing districts with growing land pressure and a decrease of the infiltration capacity of the soil. Lake Rose, also known as Lake Retba, named after the watershed, is an enclosed coastal lagoon located at 35 km north-east of Dakar. It is a tourist site and is one of the most visited in Senegal. It owes its popularity to the presence of halophilic algae, including *Dunaliella salina* which contains red pigments that give the lake its pink/red color. It is listed on Senegal’s Tentative List as a potential nomination for UNESCO World Heritage status. The economic activities related to the Pink Lake revolve around tourism, salt mining, sand, market gardening, shellfish extraction and small businesses. The waters of the lake are characterized by their high salt concentration (80 to 350 g/l) which makes them almost azoic.

The heavy rains of the 2022 rainy season caused flooding in several districts of the Lac Rose watershed. To address this situation, the government, within the ORSEC plan (National Emergency Response Organization Plan), opened a breach to channel and evacuate the flood waters into the Lake. This resulted in the rise of the water level of the lake with a loss of salinity and its pink color. This situation caused the loss of 7,000 tons of salt already extracted,



representing a financial loss of 143,303,000 FCFA (about 235,000 USD) for the 3,000 families in the region who earn their living from salt extraction. The depth of the lake, which was 3 meters, has almost doubled to 6 meters, making salt extraction impossible.

D. 2. Borrower’s Institutional Capacity

The Municipal Development Agency (ADM) is the implementing agency (IA) for the Parent Project. The institutional arrangement under the AF will remain the same as for the PP. ADM will assume overall project coordination, including responsibility for the relevant E&S due diligence, ensure continuous community outreach and consultation, maintain project accounts with financial reports, and produce quarterly E&S monitoring reports undertake M&E activities, ensure functionality and accessibility of Grievance Mechanism (GM), and provide the various stakeholders with the needed feedback.

The Senegalese National Sanitation Office (ONAS) will be in charge of Subcomponent 2.2: "Operation and maintenance of drainage infrastructures" as implementing partner. The safeguard instruments to be developed with ADM will address the risks associated with these activities

ADM has extensive experience with the World Bank’s policies and requirements on fiduciary, and environmental and social risks and impacts management. However, the PP environmental and social performance was rated Moderately Satisfactory after the last implementation support mission of December 2022. This rating is due to gaps noted on the management of Occupational Health and Safety (OHS) aspects (safety of intervention areas, lack of wearing of PPE, medical visit of hiring not effective...); non-operational GM for workers, delay in the capacity building program for environmental and social management by ADM according to the ESCP...). However, it is important to mention that no accident or incident has been recorded since the beginning of the works.

ADM is staffed with skilled and experienced E&S experts (one environmental specialist with expertise in OHS, one social specialist, one GBV specialist and a Social Facilitation firm) who have satisfactorily supported the implementation of previous projects, while there is room for improvement for projects implemented under the ESF. Additional consultants (name the position) were recruited under the PP to reinforce the E&S team: The project considered the lessons learned from the parent project such as the importance of respecting planning E&S activities, submission of regular reports in accordance with the ESCP.

Public Disclosure

II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC) Substantial

Environmental Risk Rating Substantial

The identification and management of environmental risks will be included in the main environmental and social documents to be developed, the Environmental and Social Impact Study (ESIA), and (Environmental and Social Management Plan (ESMP). The AF environmental risk rating is considered Substantial as the parent project. Key impacts and risks are linked to the activities of construction, consisting mainly of drainage, and operating structures and equipment, which may possibly have effects on certain biophysical environments. Planned activities may result also in deforestation with part of the drainage system located in a band of Filao. In addition to the area of Keur Massar North, the project will intervene in the Lac rose watershed which is a sensitive area both from an ecological and socio-economic standpoint. The complex Lac rose ecosystem, which rely on a specific salinity and give an outstanding color to the water of the lake is playing an important role for the industry of tourism, but also provides important revenues in terms of agriculture, and salt industry. (I) nuisances such as dust, noise and the poor



management of construction waste., (ii) Occupational health and safety (for workers) and Community health and safety issues (risk of accidents with company equipment, risk of drowning with retention basins) for communities living near the intervention area. The disruption of surrounding ecosystems (including watercourses, bodies of water and soil) is also a risk with the implementation of the work. The identification and management of environmental risks are included in the updated Environmental and Social Management Framework (ESMF) and will be considered in site specific environmental and social documents to be developed, such as the Environmental and Social Impact Study (ESIA), which will be based mainly on hydrological and hydraulic modelling studies via technical studies to calibrate the structures and the volumes of flow towards the sea and the lake.

Social Risk Rating Substantial

The social risks are considered Substantial for both the parent project and the AF. This work will be accompanied by a vast resettlement program with tree main risks to monitor: 1) forced evictions in particular in the sites, especially in areas already liberated from all occupations by the Administration; 2) excessive delay in the mobilization of compensation funds; 3) Lack or failure to take charge of a plan to restore the livelihoods of impacted economic actors and 4) delays in the management and processing of complaints by the Project and contractors. An audit will be carried out on this process to ensure that the release of sites has been done in accordance with ESS 5. The RAP will include measures to ensure that the livelihoods of those impacted are adequately restored, as relevant.

Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) Risk Rating Substantial

The SEA/SH Risk Rating is Substantial as the Parent project as activities are the same and the areas of intervention.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Overview of the relevance of the Standard for the Project:

As the parent project, this AF is expected to have positive environmental and social impacts as planned works will make it possible to protect from the impact of flooding approximately: 26,000 additional people in the Mbeubeuss area (Keur Massar North) for a surface area of 200 ha, and 51,000 people in the over 6,000 ha of the Lac Rose watershed, including current and future climate-related floods taking into account the exacerbated risks induced by Climate change. The realization of the works at the Lake Rose watershed could also allow the lake to recover its ecological functions if the hydrological modeling studies are appropriate. This situation could allow the Zone to regain its potential (tourist, economic with the exploitation of salt...).

Activities of the AF will have negative impacts on the environment and the population. Among these are the impact of deforestation on local flora and the risks of pollution due to waste from construction and from any discharge if construction damages any existing, infrastructure. Project activities may cause the displacement of populations and loss of land or socioeconomic activities at certain work sites; the risk of accidents for workers and neighboring populations; disruption to the environment through civil works (waste, noise and dust); the disruption of surrounding ecosystems (including watercourses, bodies of water and soil).

Under the parent project, ADM prepared, consulted upon, and disclosed all required E&S risks and impacts management instruments (ESCP, ESMF, ESIA, LMP, SEP, RPF, RAP), and established a grievance mechanism (GM). The Environmental and Social Standards (ESSs) instruments have been disclosed jointly on the country level and the World Bank website. The ESIA and other E&S safeguard instruments developed for the emergency works of the



Mbeubeuss basin and the comfort works of the parent project, which are underway, have begun to provide a sustainable solution to the recurrent flooding and will contribute to improving the quality of life, hygiene and health of the populations living in the target area. The last environmental and social performance rating (December 2022) of the parent project was Moderately Satisfactory due to certain gaps noted in the implementation of certain instruments (GRM, C-ESMP, OHS) by the contractor responsible for the civil works. It should be noted that the implementation of these measures has been well budgeted and financial resources are available. These non-compliances have been subject to an action plan that is being closely followed up with ADM.

The safeguard instruments were prepared by the Environmental and Social Management Unit via a consultant and the documents are reviewed by the Unit's Safeguards specialists before submission to the Bank. The implementation of the instruments after approval is ensured in general by the contractor who works in collaboration with other partners for certain activities (awareness raising/training...). Supervision of Safeguards activities in the field is carried out by an Owner Engineer, which has an environmental specialist and a social specialist in its organization. ADM's E&S unit has also recruited an environmental specialist with expertise in OHS and a social specialist who also monitor activities and submit a quarterly report to the Bank. In addition, ADM has signed protocols with the DEEC and the DEFCCS to support certain activities (water quality monitoring, reforestation, etc.). This robust monitoring system should ensure satisfactory performance in managing environmental and social aspects. On the Bank's side, field visits are carried out regularly and monthly meetings are held with the ADM to monitor action plans and constant support by specialists to ensure that the project is in line with the Bank's requirements. The AMs and ISRs are completed by the specialists in accordance with the data collected on the implementation of the activities.

No new environmental and social standards (ESS) will be relevant because of AF activities. The PP ESMF was updated to consider potential risks of this AF. It provides among mitigation measures, measures to manage OHS and risks of Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH), as well as guideline for the E&S screening process of site-specific activities.

Resettlement Policy Framework (RPF), Labor Management Procedures (LMP) and Stakeholder Engagement Plan (SEP) which were prepared for the parent project provide guidance for the AF project. The ESMF, ESCP, RPF and SEP will be updated and disclosed prior to project Appraisal. For the Lac Rose area, an ESIA and RAP will be developed once the technical studies are finalized. The RAP will be implemented prior to the start of civil works and the ESMP according to the schedule.

ESS10 Stakeholder Engagement and Information Disclosure

ADM has conducted 27 public consultation workshop and collected stakeholders' concerns and recommendations on environmental and social safeguard measures in view of the extension of the PROGEP II intervention area. These consultations at the local level have ensured the participation of local communities and that they are informed about the contents of the updated environmental and social risk management instruments (ESMF, CPR, ESCP, RPF). The SEP has been updated taking into account all stakeholders in the intervention's areas of the FA. Thus, COLIGEP (Comité local d'Initiative et de Gestion des Eaux Pluviales) were set up to support and strengthen citizen engagement in a collective effort to accompany the project. The SEP integrates an SEA/HS sensitive GRM, that takes care of potential survivors and provides information related to workers GRM. It specifically seeks to enhance stakeholder's sensitization, by improving their understanding and creating the conditions to ensure the effective involvement of all parties affected by the additional funding of PROGEP 2. It also includes recommendations to address the concerns expressed at the workshop regarding the additional funding. A social facilitation structure and an NGO GBV service



provider were recruited for the operationalization of the SEA/HS sensitive GRM and the care of potential survivors as part of the project activities. The updated SEP will be disclosed at nationally and on the Bank’s external website.

B.2. Specific Risks and Impacts

A brief description of the potential environmental and social risks and impacts relevant to the Project.

ESS2 Labor and Working Conditions

The Borrower has updated the Labor Management Procedures (LMP) of the parent project (PP) which sets out the way in which project workers will be managed in accordance with the requirements of national law and ESS2. The LMP includes measures to prohibit forced or child labor and will further ensure the health and safety of workers, including prevention of SEAH risks among workers or beneficiaries. It also provides details about the GRMs specifically for workers and indicates the respective roles and responsibilities of contractors and PIU and Execution agencies.

The LMP considers national regulations and international good practice guides to maintain the principle of equality and inclusion of all vulnerable groups, including women and persons with disabilities. Where appropriate, the project will provide incentives to promote the inclusion of such groups based on positive discrimination. The project requires contractors/operators (both local and international) to develop their own labor management plans acceptable to the project and the World Bank. The provisions would apply to all workers on the project, including direct workers, contracted workers and primary suppliers (full-time and part-time). It will also be the responsibility of the Contractor to ensure that all workers are fully aware of the terms of employment, remuneration, grievances and other relevant factors, as per the ESS2 and relevant national laws. The minimum age applicable to the project is 15 years, as per national laws: no child under the age of 15 will be engaged in high impact construction activities, and no children under the age of 15 shall be employed for high risk/impact activities. The signing of Codes of Conduct (COC) will be a condition for employment for all project workers, temporary or full-time. The project will need to ensure that Contractors conduct regular training, in local languages, for their workers on topics such as labor provisions, codes of conduct, and grievance redress mechanisms. Civil servants will rely on the national labor law and relevant provisions on ESS2, while they can also be subject to the workers’ GRM.

OHS: To ensure the health and safety of workers during the construction and operational phases, contractors will develop and implement a Health, Safety and Environmental (HSE) plan in line with World Bank Group’s Environment, Health and Safety (EHS) Guidelines for construction activities and international good practice. The HSE plan will include procedures on incident investigation and reporting, the recording and reporting of non-conformance, emergency preparedness and response procedures, and the continuous training and awareness of these for workers.

Workers’ Accommodation: The Construction-ESMP will confirm if there will be on-site accommodation. Contractors will put in place doses of anti-venom in health facility located near the project area to prevent potential snakebites.

Capacity Assessment: As part of the planned, institutional capacity assessment, the client’s capacity to manage labor, working conditions, and community health and safety are already assessed during ESIA’s studies and will be disclosed both in the Bank web site and the country level.

ESS3 Resource Efficiency and Pollution Prevention and Management

Activities of the parent project currently in implementation as well as activities planned under the AF are likely to have impacts on the environment and human health. Indeed, civil works will lead to air pollution by smoke generated



by heavy vehicles and machinery, and dust. There is also a risk of pollution of lac rose during drainage activities. site ESIA/ESMP, as well as the C-ESMP should provide concrete measures to avoid, minimize or mitigate pollution risk on the lac

Under the parent project, these negative impacts are relatively well managed via the site ESMPs. The project will apply similar measures regarding the AF's activities, among which measures: watering of runways and vehicle maintenance in order to minimize the impact of atmospheric emissions. Staff will be provided with protective equipment (masks, goggles) whenever necessary in order to minimize risks to human health.

Waste management: Spills Hazardous wastes, such as hydrocarbon oils from construction equipment and vehicles, are controlled under the parent project activities through the implementation of the site ESMP's measures and should also be reflected in the C-ESMP. Same approach will be used under the implementation of the AF's activities and improved as needed. . Green waste, which will be generated, will also be managed in accordance with the sites ESMP. Site-specific ESIA/ESMPs will determine the source, type and risks associated with waste likely to be generated by the project, and, if such waste cannot be avoided, appropriate measures will be proposed to minimize, reduce and, if necessary, mitigate the risks associated with the waste. Contractors will be requested to prepare a waste management plan as part of their C-ESMPs.

Drainage water quality monitoring is currently being done with the parent project and will be continued with the AF.

Use of raw materials: The required construction material for the drainage structure and retention basin for AF activities will potentially include stones, sand, concrete blocks, and wood. These materials are expected to be obtained from sources localized to project areas, such as quarries in the implementation zones, or in clear agreement with owners. ESIA's will recommend appropriate measures for improving the efficient use of raw materials.

ESS4 Community Health and Safety

The project area is densely populated with a large population of children and adolescents. Added to this is a pathogenic environment with many flooded areas, occupied by stagnant water, often bad odors containing various bacterial germs. The project will have to ensure the safety of the population by ensuring that no pipe will allow the flooding of houses, vegetable fields and consequently drowning. The ESMF includes measures to mitigate risk related to Open pools and trenches in order to avoid incident/accident from community living near intervention areas. The project will, in conjunction with contractors and health centers, ensure high public awareness and provide support for the distribution of insecticide-treated mosquito nets, free consultations and other facilities. The ADM will have to plan emergency measures (pumping, cleaning of existing structures) before the next rainy season. The ADM will also have to fight against the proliferation of typha and other wild plants and the existence of reptiles in ponds, and abandoned houses that are places of refuge for thugs. . The ADM with the contractors, will finally put in place a monitoring and alert system to follow these risks and ensure that the installations do not give way when the rains arrive. Finally, the ADM will have to consider the populations as key actors in management of security risks that affect them.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

The RPF will be updated and disclosed, not later than one month after project effectiveness. Also, a detailed RAP will be prepared as soon as the routes and specific sites are known and published by the ADM and the Bank. Site visits show that the AF area is densely occupied, and whichever option is chosen, the scale of resettlement will be significant. Thus, the RAPs will be implemented prior to the start of the work. Some sites in their current state are



flooded and abandoned by their owners. Sites have also already been vacated by the Administration (Commission Départementale d'Evaluation des Impenses). This process under national law poses the risk of forced evictions. Thus, an audit will be carried out on these sites already vacated by CDEI to ensure that the release of sites has been done in accordance with ESS 5. The RAP will include measures to ensure that the livelihoods of those impacted are adequately restored, as relevant. Major risks related to this Standard, and which need to be monitored and avoided are: 1) excessive delay in the mobilization of compensation funds; 2) Lack or failure to take charge of a plan to restore the livelihoods of impacted economic actors particularly market gardeners in Mbao forest; and 3) delays in the management and processing of complaints by the Project and contractors.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

This ESS is relevant both for the parent project and the additional financing as the project will be carried out in part in the classified forest of Mbao but also Lake Rose Watershed which is a very sensitive area.

Regarding the classified forest of Mbao, the mitigation measures of the ESMP have been implemented under the parent project and a protocol was signed with the Directorate of Water and Forests to support certain project activities such as reforestation, supervision during interventions inside the forest. This protocol will remain in effect with the AF.

For interventions in the Lac Rose watershed, a protocol with the DGPRE (Direction Générale de la Planification des Ressources en Eau) is also planned. The ESIA/ESMPs and C-ESMP to be developed will include measure to avoid, minimize or mitigate risk on the lac.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

This standard is not considered relevant as there are no Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities currently identified in the project area. Should the presence of indigenous communities be confirmed through further screening during implementation, the necessary assessments, consultations and instruments will be undertaken per the requirements of this standard.

ESS8 Cultural Heritage

Since the start of civil works of the parent project to date, no incidents have been noted in relation to cultural heritage. The environmental and social assessment of the construction activities under the AF will determine the presence of any cultural heritage; this will also be determined during the consultation process. The first mitigation measure will be to avoid known cultural heritage. Chance finds procedure will also be developed to address any cultural heritage encountered during the works. The status of Lac Rose as a potential candidate for UNESCO World Heritage Site will also be considered and specific ESIA will provide appropriate measures to make sure there will not be any complaint by any NGO on project interventions.

ESS9 Financial Intermediaries

This ESS does not apply.



B.3 Other Relevant Project Risks

The vulnerability of the population in the project area could be a risk if the compensation of the people affected is not well designed and implemented. There could be a risk if the PAP in some sites are not well consulted and information about there resettlement notprovided on time.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways

OP 7.60 Projects in Disputed Areas

B.3. Reliance on Borrower’s policy, legal and institutional framework, relevant to the Project risks and impacts

Is this project being prepared for use of Borrower Framework? No

Areas where “Use of Borrower Framework” is being considered:

No

IV. CONTACT POINTS

World Bank

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Borrower/Client/Recipient

Borrower: Republic of Senegal

Implementing Agency(ies)

Implementing Agency: Municipal Development Agency (Agence de Développement Municipal - ADM)

V. FOR MORE INFORMATION CONTACT

Public Disclosure



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VI. APPROVAL

Task Team Leader(s):	Isabelle Celine Kane, Mouhamed Fadel Ndaw
Practice Manager (ENR/Social)	Abdelaziz Lagnaoui Cleared on 06-Mar-2023 at 12:43:7 EST