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Report No.: 106949-SN

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT PAPER

ON A

PROPOSED ADDITIONAL TRUST FUND GRANT

IN THE AMOUNT OF US\$5,504,587

FROM THE GLOBAL ENVIRONMENT FACILITY

TO THE

REPUBLIC OF SENEGAL

FOR THE

STORMWATER MANAGEMENT AND CLIMATE CHANGE ADAPTATION PROJECT

March 28, 2017

Social, Urban, Rural and Resilience Global Practice Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective January 31, 2017)

Currency Unit = CFAF

US = 610 CFAF

FISCAL YEAR January 1 – December 31

ABBREVIATIONS AND ACRONYMS

| AF | Additional Financing |
|------|---|
| CIP | Community Investment Micro-Projects |
| CPS | Country Partnership Strategy |
| DEEC | Department of Environment and Classified Enterprises (Direction de l'Environnement et des Etablissements Classés) |
| DGPU | Department for the Promotion of the Diamniadio Urban Pole (Direction Générale du Pôle Urbain de Diamniadio) |
| DRM | Disaster Risk Management |
| DUA | Department of Urban Planning and Architecture (Direction de l'Urbanisme et de l'Architecture) |
| ERR | Economic Rate of Return |
| ESMF | Environmental and Social Management Framework |
| FM | Financial Management |
| GEF | Global Environment Facility |
| GHG | Greenhouse Gas |
| GIS | Geographic Information System |
| GoS | Government of Senegal |
| IAP | Integrated Approach Program |
| IDA | International Development Association |
| M&E | Monitoring and Evaluation |
| ADM | Municipal Development Agency (Agence de Développement |
| | Municipal) |
| MDA | Municipal Development Agency |
| MERR | Modified Economic Rate of Return |
| MTR | Mid-Term Review |
| NDF | Nordic Development Fund |
| NPV | Net Present Value |
| OMVS | Senegal Valley Management Organization (<i>Organisation pour la Mise en Valeur du Fleuve Sénégal</i>) |
| ONAS | Senegal's National Sanitation Office (Office National de l'Assainissement du Sénégal) |
| | |

| O&M | Operation and Maintenance |
|--------|--|
| PDD | Drainage Master Plan (Plan Directeur de Drainage) |
| PDU | Urban Master Plan (Plan Directeur d'Urbanisme) |
| PUD | Detailed Urban Plan (Plan d'Urbanisme Détaillé) |
| PROGEP | Senegal Stormwater Management and Climate Change Adaptation project (<i>Projet de Gestion des Eaux Pluviales et d'Adaptation au</i> <i>Changement Climatique du Sénégal</i>) |
| PSE | Emerging Senegal Plan (Plan Sénégal Emergent) |
| RPF | Resettlement Policy Framework |
| SF | Sanitation Fund (Fonds National d'Assainissement) |
| SC | Steering Committee |
| SCI | Sustainable Cities Initiative |
| STAR | System for Transparent Allocation of Resources |
| TA | Technical Assistance |
| TC | Technical Committee |
| UNIDO | United Nations Industrial Development Organization |

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SENEGAL

ADDITIONAL FINANCING - STORMWATER MANAGEMENT AND CLIMATE CHANGE ADAPTATION PROJECT

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ADDITIONAL FINANCING DATA SHEET SENEGAL

ADDITIONAL FINANCING TO STORMWATER MANAGEMENT AND CLIMATE CHANGE ADAPTATION RPOJECT (P158415)

Social, Urban, Rural and Resilience Global Practice

| | Basic Information – Parent | | | | | | | | | |
|-----------------------------------|------------------------------|------------|---------------|------------|-----------|--|-----------------------|---------------------|--------------------|-------------------------|
| Parent Pro | oject ID: | P12284 | 1 | | | Orig | inal EA Categor | y: A - l | Full A | ssessment |
| Current C | Closing Date: | 31-Dec- | 31-Dec-2019 | | | | | | | |
| | | Basic | Inform | natio | n – Add | itiona | al Financing (A | F) | | |
| Project ID |): | P15841 | 5 | | | Addi Type | tional Financing | g GEF | ⁷ grant | |
| Regional | Vice Presiden | t: Makhta | r Diop | | | Prop | osed EA Catego | ry: A – | Full A | ssessment |
| Country I | Director: | Louise | Cord | | | Expe Date | ected Effectivene | ess 03-J | ul-201 | 7 |
| Senior Gl Director: | obal Practice | Ede Jor | ge Ijjas | z-Va | squez | Expe | ected Closing Da | ite: 31-E | te: 31-Dec-2019 | |
| Practice Meskere Manager/Manager: | | em Brhane | | Report No: | | 1069 | 106949-SN | | | |
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| | inancing Dat Additional H | | | | er Mana | | ent and Climate | | | |
| Key Date: | S | | | | | | | | | |
| Project | Cr | Status | Appro Date | val | Signing | Date | Effectiveness Date | Original Closing | | Revised Closing Date |
| P122841 | IDA-50960 | Effective | 10-Ma 2012 | ıy- | 24-Aug | -2012 | 21-Nov-2012 | 31-Dec- | 2017 | 31-Dec-2019 |
| P152150 | IDA-56630 | Effective | 27-Ma 2015 | ıy- | 29-Jun- | 2015 | 28-Sep-2015 | 31-Dec- | 2019 | |

| Disbursen | nents | | | | | | | | |
|---|--|-------------------------|------------|------------|------------------------|--------------------------|---------|-------------------|---------------|
| 215001501 | | | | | | | Dis- | Undis- | % |
| Project | Cr | Status | Currency | Original | Revised | Cancelled | bursed | bursed | Disbursed |
| P122841 | IDA-50960 | Effective | SDR | 35.90 | | 0.00 | 34.39 | 1.51 | 95.79 |
| P152150 | IDA-56630 | Effective | SDR | 25.40 | | 0.00 | 0.09 | 25.31 | 0.35 |
| | inancing Dat Adaptation P | | | Financi | ng to Stori | nwater Ma | inageme | nt and C | limate |
| [] Loan | [X] Gr | ant | [] | IDA Gra | ant | | | | |
| [] Cred | it []Gı | arantee | [] | Other | | | | | |
| Total Proj | ject Cost: | 5,504,58 | 87 | | Total Ba | nk Financir | ng: 5,5 | 04,587 | |
| Financing | g Gap: | 0.00 | | | | | | | |
| Financ | ing Source – | Additiona | l Financin | g (AF) | · | | А | mount (l | US\$ million) |
| Borrower | /Recipient | | | | | | | | 0.00 |
| GEF - Co | financing | | | | | | | 5 | ,504,587 |
| Total | | | | | | | | 5 | ,504,587 |
| Policy W | aivers | | | | | | | | |
| Does the p | project depart | from the C | AS in con | tent or in | other sign | ificant resp | ects? | | No |
| Explanati | on | | | | | | | | |
| Does the j | project require | e any policy | waiver(s) |)? | | | | | No |
| Explanati | on | | | | | | | | |
| | | | Т | eam Co | mposition | | | | |
| Bank Sta | ff | | | | | | | | |
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| Barbry K | Barbry Keller Team Member Senior Operations Operations | | | | | tions | GSU13 | | |
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| Mamata Tiendreb | eogo | Senior Pr Specialist | | | nior Procu ecialist | irement | Procui | rement | GGO01 |

| Mamadou Mansour Consultant Mbaye | | | Procurem | ent Specialis | t Procur | ement | GGO07 | |
|-------------------------------------|-----------------------|-----------------------|---------------|-------------------------|------------------------|-------------------|-------------------|-------|
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| Marie Agnes Ndour Team A Huchard | | Team Assi | stant | Team Assistant | | Operat assista | | AFCF1 |
| Locations | | | | | | 1 | | |
| Country | First Adm Division | ninistrative | Location | | Planned | Actual | Comm | ents |
| Senegal | Dakar Re | gion | Pikine, Gue | diawaye | | Х | | |
| Senegal | Dakar Re | gion | Diamniadio |) | | Х | | |
| Senegal | Saint-Lou | is Region | Saint-Louis | | | Х | | |
| | | | Instit | tutional Da | ta | | | |
| Parent - St | ormwater I | Managemen | t and Climat | e Change A | Adaptation Pr | oject (P1 | 22841) | |
| Practice A | rea (Lead) | | | | | | | |
| Social, Urb | an, Rural an | d Resilience | Global Practi | ice | | | | |
| Contributi | ng Practice | Areas | | | | | | |
| | | | | | | | | |
| Cross Cutt | ing Topics | | | | | | | |
| [x] Climat | e Change | | | | | | | |
| [] Fragile | e, Conflict & | ² Violence | | | | | | |
| [] Gender | r | | | | | | | |
| [] Jobs | | | | | | | | |

| Sectors / Climate Change | | | | | | |
|---|-------------|---|---------|-----------------------------|-------------------------|-----|
| Sector (Maximum 5 and tota | al % must e | equal 100) | | | | |
| Major Sector | | Sector | % | Adaptation Co-benefits % | Mitigatio benefits 9 | |
| Water, sanitation and flood | protection | Flood protection | 94 | 94 | | |
| Public Administration, Law, and Justice | | Public Administration- Water, Sanitation and Flood Protection Public administration- Water, sanitation and flood protection Public administration- Water, sanitation and flood protection | 6 | 6 | | |
| Total | | | 100 | | • | |
| Themes | | | | | | |
| Theme (Maximum 5 and tot | al % must | equal 100) | | | | |
| Major theme | Theme | Theme | | | | % |
| Social Protection and Risk Management | Natural D | bisaster Management | | | | 50 |
| Environment and Natural Resources Management | e | | | | | 50 |
| Total | -1 | | | | | 100 |
| Additional Financing to St (P158415) | ormwater | Management and Clima | ite Cha | nge Adaptation | Project | |
| Practice Area (Lead) | | | | | | |
| Social, Urban, Rural and Re | silience G | lobal Practice | | | | |
| Contributing Practice Are | as | | | | | |
| | | | | | | |
| Cross Cutting Topics | | | | | | |
| [x] Climate Change | | | | | | |
| [] Fragile, Conflict & Vi | olence | | | | | |
| [] Gender | | | | | | |
| [] Jobs | | | | | | |
| [] Public Private Partner | ship | | | | | |

| Sectors / Climate Chan | ge | | | | | |
|---|----------------|--|----|-----------------------------|------------------------------|--|
| Sector (Maximum 5 and | total % must | equal 100) | | | | |
| Major Sector | | Sector | % | Adaptation Co-benefits % | Mitigation Co- benefits % | |
| Water, sanitation and flo | od protection | Flood protection | 60 | 60 | | |
| Public Administration, Law, and Justice | | Sub-national government administration | 40 | 40 | | |
| Themes | | | - | - | | |
| Theme (Maximum 5 and | l total % must | equal 100) | | | | |
| Major theme | Theme | | | | % | |
| Urban development | Other Url | oan Development | | | 40 | |
| Urban development | Climate C | Change | | | 20 | |
| Urban development Municipal Finance | | | | | 10 | |
| Urban development | | 30 | | | | |
| Total | | | | | 100 | |

I. Introduction

1. This Project Paper seeks the approval of the Executive Directors to provide an Additional Financing (AF) to the Stormwater Management and Climate Change Adaptation Project (P152150- IDA5663; P122841; IDA-50960) (PROGEP) in an amount of US\$ 5,504,587 to the Republic of Senegal. This is the project's Global Environment (GEF) AF¹ and takes the form of a trust fund grant from the GEF's Sustainable Cities Program.

2. The proposed AF would scale up the current project's sustainable cities sub-component (A3) through the following activities: (i) strengthening the national urban policy framework to promote cities' sustainability, including climate resilience through; (ii) mainstreaming of integrated sustainability and resilience planning tools in the two selected pilot cities of Diamniadio and Saint-Louis; (iii) improvement of planning and management capacities of the two pilot cities; as well as key central Government stakeholders; (iv) small-scale investments in the two pilot cities as a demonstration of the local and global environmental benefits anticipated from the application of sustainable cities' practices and tools; and (v) knowledge sharing and partnership development on sustainable cities and climate resilience at multiple levels. In addition, the AF would finance the corresponding share of project management and monitoring costs under Component D.

3. This AF does not change the original Project Development Objective (PDO), the project closing date, or the fiduciary and safeguards arrangements. The project Results Framework has been modified to integrate the AF activities and expected results.

4. The current project encompasses an IDA credit equivalent to US\$90.6 million and Government counterpart funds equivalent to US\$16.20 million. The Nordic Development Fund (NDF) is implementing a parallel cofinancing grant of US\$9 million supporting activities under components A and C and collaborating closely with the World Bank and client under this program. The AF activities will complement the PROGEP sustainable cities piloting initiative in Diamniadio and Saint-Louis. In the pilot city of Diamniadio, the AF will also be complemented by a project implemented by the United Nations Industrial Development Organization (UNIDO), which has also received a US\$3.5 million grant from the GEF.

5. This UNIDO project will support approaches in clean industrial production, emissions reduction and hazardous waste management, and low carbon energy technologies through the following activities: (i) development of an approach for efficient natural resources use and cleaner production for industries located in Diamniadio; (ii) pilot methods for the reduction of dioxin and furan emissions and industrial hazardous waste; and (iii) low carbon energy technologies.

II. Background and Rationale for Additional Financing in the amount of US\$5.5 million

6. The PROGEP (P122841) was initially financed through an IDA credit of US\$55.6 million equivalent. It was approved on May 10, 2012 and became effective on November 21,

¹ The first Additional Financing was approved on May, 2015 for US\$34 million (IDA).

2012. The original closing date was December 31, 2017. The project benefited from an AF (P152150) through an IDA credit of US\$35 million and a NDF contribution of US\$5.0 million, which approved on May 27, 2015 and became effective on September 28, 2015. The project closing date is December 31, 2019.

7. The existing PDO is to reduce flood risks in peri-urban areas of Dakar and improve capacity to plan and implement sustainable city management practices, including climate resilience, in selected urban areas. This PDO will remain unchanged under the proposed AF.

8. The project has four components: (a) Integration of climate risks in urban planning and management (IDA US\$3.7 million; GEF US\$5,229,587); (b) Drainage investments and management (IDA US\$78.2 million; Government US\$10.1 million); (c) Community engagement in urban flood-risk reduction and adaptation to climate change (IDA US\$4.6 million); and (d) Project coordination, management, monitoring and evaluation (IDA US\$4.1 million; Government US\$6 million; GEF US\$0.275 million). The AF will scale up Component A -- Integration of climate risks in urban planning and management -- and will focus on urban planning and management capacity building through the development of integrated climate resilience solutions for the two pilot cities of Diamniadio and Saint-Louis, and strengthening the urban national policy framework to promote cities' sustainability at the national level.

9. The proposed AF is embedded in the "Plan Sénégal Emergent" (PSE), the Government's vision and priority development program for 2035 which includes a pillar on the development of new urban areas (referred to as urban poles). At the sectoral level, the PSE focused on six main sectors: energy, infrastructure, business environment, telecommunication, human capital and finance. Flagship projects under the PSE include the development of Dakar as a regional logistics hub for production, as well as distribution of industrial products and services in West Africa. The plan anticipates that flagship projects will foster strong synergies within the region and improve the attractiveness and competitiveness of Dakar, and more broadly Senegal, more generally. The proposed project aligns well with a key focus of the PSE which aims at improving the overall living conditions, including better planning and space management in cities and other urban areas. This also covers the development of new urban poles including Saint-Louis and Diamniadio. This new town in construction in the outskirts of Dakar, is in particular envisioned as a special economic zone and multisectoral platform for the priority sectors, industry, infrastructure, equipment and services, under the PSE².

10. The proposed AF is also well aligned with the World Bank's current Country Partnership Strategy FY13-FY17 (Report number 73478), in particular its stated Foundation – "Strengthening the Governance Framework and Building Resilience" which includes disaster risk management. The project further underpins the World Bank's efforts to support the Government's implementation of a decentralization reform program, particularly with regards to helping municipalities integrate climate resilience into urban management.

11. *Implementation status*: Progress towards the achievement of the project PDO is satisfactory. As of November 25, 2016, 450 hectares of flood prone areas (against a final target of 400) and 125,000 residents (against a final target of 132,000) have been protected from

² Plan Senegal Emergent (PSE); paragraph 316, GoS, 2014.

recurrent floods and storm surges. Performance under component A was initially moderately satisfactory due to delays in the launch of activities, but is now progressing satisfactorily upon the reinforcement of the component activities monitoring. The activities implemented through Component C to facilitate communities' engagement in flood risk prevention are also progressing satisfactorily, building on effective methodologies and tools for population mobilization and the identification and design of community investment micro-projects (CIPs). Twenty CIPs submitted by the communities have been validated and implemented so far in accordance with the implementation manual and these are now being implemented with local community monitoring. Municipalities have committed to allocate the necessary budgetary support to ensure investment sustainability.

12. Project implementation progress (IP) rating has been moderately satisfactory due to delays in internal audit, invoice payment, and procurement processes. Although the monitoring and evaluation (M&E) system has improved, there is a continued need for additional training and logistical support to ensure the M&E unit is fully operational and can better coordinate the annual work plan preparation and follow-up. The project's disbursed fund for both the initial project and AF is 56.25 percent as of March 16, 2017. The disbursement rate from the initial funding after four years is 96 percent.

13. The overall implementation of safeguards under the original project is Moderately Satisfactory. The relevant Environmental and Social Impact Assessments (ESIA) and Environmental and Social Management Plans (ESMP) both for the first and second phases of civil works are being satisfactorily implemented. The populations affected by project's activities have been adequately consulted and compensated under the Resettlement Action Plan (RAP) prior to the commencement of works. The Environmental and Social Management Framework (ESMF) and the Resettlement Policy Framework (RPF) were updated, approved and disclosed at the World Bank's Infoshop and in country on January 28, 2015.

- 14. In summary, the project has:
 - substantially complied with all legal covenants;
 - no unresolved fiduciary or environmental and social safeguard problems;
 - no audit issues and all audits are current.

15. In early 2015, the Government of Senegal (GoS) expressed its interest to participate in the GEF's new Sustainable Cities Program (SCP) as a pilot country, given its interest in integrating climate resilience into its national urban policy. The GEF agreed to include Senegal in the program and proposed two grants to be administered separately by the World Bank and UNIDO, where the World Bank would focus on integrating climate risks in urban planning and management and UNIDO on promoting renewable energy, integrated waste management and sustainable industrial parks.

16. A GEF AF to PROGEP was selected as the most effective approach to implement the GEF project because it allows for complementing sustainable cities' activities initiated under the original project.

17. *Country context:* The development of sustainable cities is a national priority. Almost 45 percent of Senegal's population currently resides in urban areas (about 6.5 million people in 2013), half of those (i.e. 3.3 million) live in the Greater Dakar area, and almost 40 percent of the total population live in cities located along the coast, including Dakar. By 2050, in view of the country's high demographic growth, the urban population is expected to increase to 60 percent of the total by 2050. This rapid urbanization is increasing pressure on Government and local authorities' capacity to deliver basic urban services among others. Limited efforts to-date, have been focused on upgrading settlements, primarily in flood plains.

18. Planning remains a primary concern. Less than 20 percent of cities have urban plans; for those that do, many of their plans are obsolete. This leads in most cities to lack of coordination between service delivery, infrastructure provision, land and housing management, among others. The convergence of these ongoing challenges with emerging climate change impacts increases the vulnerability of cities and illustrates the increasing importance of examining the relationship between climate change processes, urban vulnerability and development in order to define responses at the urban scale.

19. The ongoing project is addressing the above with a geographic focus on Pikine, Guediawaye, Diamniadio and Saint-Louis. The AF will support strengthening the national urban policy framework to promote a sustainable cities model as well as scaling up and strengthening the existing sustainable cities sub component efforts in the two sites: the Emerging Urban Pole of Diamniadio and Saint-Louis through: (i) strengthening National framework for urban governance that integrates cities sustainability requirement; (ii) capacity building for civil-servants at municipalities and central level in planning and implementing sustainable cities strategy and tools; (iii) development of detailed urban plans (PUD) for pilot cities integrating climate risks and sustainability requirements; (iv) development of a sustainable cities master plan (PU) for Diamniadio and Saint-Louis integrating the strategic vision, action plan and pilot investments based on the results of the sustainable cities diagnostic under the ongoing project; (v) identification and implementation of pilot investments that can generate local, national and/or global benefits; (vi) promotion of intercommunal cooperation to integrate city sustainability management practices between the pilot cities and its neighbors; (vii) development of a platform for sharing knowledge and for partnership in planning resilient and sustainable cities; and (viii) financial study to assess economic added value of developed sustainable cities approach and tools as well as orient municipalities in financing sustainable cities strategy.

20. Sector policy or strategy: The PROGEP AF will have strong linkages with the new Municipal and Agglomerations Support Program IDA project, which is currently under preparation and intended to support the GoS in implementation of its Decentralization reforms, and improve access to basic and inter-municipal services and infrastructure in targeted cities across the country. Lessons learned from the drainage works as well as the sustainable cities sub-component will feed into this new operation in terms of building resilient infrastructure, better managing urban growth, and prioritizing infrastructure selection for the short and long runs.

21. *Overall Risk Rating and explanation of key risks*: The overall AF risk rating is Moderate since the new activities are primarily technical assistance in nature. The main risks are linked

to the pilot nature of the Sustainable Cities Initiative (SCI) approach which is a new concept and practice for the country, the limited knowledge about the pilot future applicability, and limited capacity among stakeholders in developing and implementing these types of activities. However, since the AF includes the preparation of PUDs which can pose safeguards risks, these will need to be assessed through a social and environmental assessment document to be prepared before the PUDs are adopted.

22. As mitigation measures the AF will include a capacity building program for central and local civil servants, training modules with academic institutions (Gaston Berger University of Saint-Louis as a primary partner) on SCI issues, including climate change challenges for urban practioners and students. Also the planned knowledge-sharing platform will promote the capitalization and dissemination of lessons learned and knowledge for replication by the other cities.

23. *Institutional or capacity issues*: The Municipal Development Agency (MDA) will remain the project coordinating entity with overall fiduciary responsibility for the project. UNIDO will participate in the work sessions of the project technical committee to facilitate coordination and exchange between the SCI components to be implemented respectively by PROGEP and UNIDO.

III. Proposed Changes

Summary of Proposed Changes

The AF will scale up the impacts and capital investments of the project, as well as enhance and sustain the institutional strengthening activities, and provide the enabling infrastructure to support local economic development and livelihoods. It will also enable the project to fully achieve the original PDO.

| Change in Implementing Agency | Yes [] No [X] |
|--|------------------|
| Change in Project's Development Objectives | Yes [] No [X] |
| Change in Results Framework | Yes [X] No [] |
| Change in Safeguard Policies Triggered | Yes [] No [X] |
| Change of EA category | Yes [] No [X] |
| Other Changes to Safeguards | Yes [] No [X] |
| Change in Legal Covenants | Yes [] No [X] |
| Change in Loan Closing Date(s) | Yes [] No [X] |
| Cancellations Proposed | Yes [] No [X] |
| Change in Disbursement Arrangements | Yes [] No [X] |
| Reallocation between Disbursement Categories | Yes [] No [X] |
| Change in Disbursement Estimates | Yes [X] No [] |
| Change to Components and Cost | Yes [X] No [] |
| Change in Institutional Arrangements | Yes [] No [X] |
| Change in Financial Management | Yes [] No [X] |
| Change in Procurement | Yes [] No [X] |
| Change in Implementation Schedule | Yes [] No [X] |
| Other Change(s) | Yes [] No [X] |
| | |

Development Objective/Results

Project's Development Objectives

Original PDO

To reduce flood risks in peri-urban areas of Dakar and improve capacity to plan and implement sustainable city management practices, including climate resilience, in selected urban areas.

Change in Project's Development Objectives

Explanation:

No change

Proposed New PDO – Additional Financing (AF)

The PDO will remain unchanged under the proposed AF.

Change in Results Framework

Explanation:

Adjustments to the results framework will be made to reflect the new activities and corresponding targets (see Annex 1 and Annex 2). The AF will add the following new main PDO indicator: "*Urban national policy framework strengthened with sustainable cities tools, good practices and strategic master plan*" and will adjust the linked intermediary results to monitor the key stakeholders (persons) trained in flood risk management, urban climate change resilience and sustainable cities planning and practices; as well as the conduct an assessment of the financial and environmental benefits of the project outcome.

The activities under the AF will focus on supporting activities under Component A of the existing project as it focuses on institutional strengthening and strategic development for urban management. Specifically, the activities will be added to sub-component A3 - integration of climate risks and other sustainability aspects in planning and management of cities – with the following main activities structured through the four pillars and related outcomes below:

- Pillar/outcome 1: Improved planning and management capacities of participating pilot cities and central government for sustainable cities.
- Pillar/outcome 2: Investments in pilot cities generate local and global environmental benefits.
- Pillar/outcome 3: Increased knowledge and partnerships on sustainable cities and climate resilience at multiple levels.
- Pillar/outcome 4: National urban policy framework strengthened to promote sustainable cities model.

Table 1 – The activities of the Sustainable Cities pilot initiative by Pillar/outcome, pilot cities and at national level (details about funding by agency is available in Annex 3):

| Pillars/Outcomes | Outputs/Activities Urban Pole of DIAMNIADIO (A.3.1) | Outputs/Activities SAINT-LOUIS CITY (A.3.2) | Funding sources (WB/IDA, NDF or GEF) (see detail costs by agency in Annex 3) |
|---|--|--|--|
| Pillar/Outcome 1 . Improved planning and management capacities of participating pilot cities and central government for sustainable cities | Output A.3.1.1: Diagnostic study and city action plan & stakeholder capacity building need assessment | Output A.3.2.1: Diagnostic study and city action plan & stakeholder capacity building need assessment | |
| | Output A.3.1.2: Urban development study | Output A.3.2.2: Modelling and environmental | |

| | Output A.3.1.3: Develop Detailed Urban Plans (PUD) for Diamniadio city and peri-urban areas integrating climate risks and sustainability requirements | monitoring of the coastal zone of Saint- Louis Output A.3.2.3: Update and extension of the Urban Master Plan for Saint-Louis Output A.3.2.3.1: Develop new detailed urban plans (PUD) for the city peri-urban areas integrating climate risks and sustainability requirements | |
|---|--|--|--|
| | Output A.3.1.4 Promotion of inter- communal cooperation on sustainable cities including climate resilience interests | Output A.3.2.4 Establishment of a territorial integrated GIS | |
| | Output A.3.1.6 Develop a model of connecting the urban pole of Diamniadio to Dakar and the rest of country, in order to fulfil its primary objective which is to decongest Dakar and to serve as a model of sustainable city | Output A3.2.5 Promotion of inter- communal cooperation on sustainable cities including climate resilience interests | |
| Pillar/Outcome 2. Investments in pilot cities generate local and global environmental benefits. | Output A3.1.5 Identification and implementation of priority projects for investments and preparation of sub- projects technical documents, including technical specifications, budgeting, timeframe, person resources, and institution platforms | Output A3.2.6 Identification of priority projects for investments and preparation of sub- projects technical documents, including technical specifications, budgeting, timeframe, person resources, and institution platforms | |
| Pillar/Outcome 3. Increased knowledge and partnerships on sustainable cities and | NATIONAL COVERAG | <u>E</u> | |

| Output A.3.3.2: Training program in sustainable cities including climate resilience tools developped Output A.3.3.3: Study tour and contribution to the SC-IAP global platform activities Output A.3.3.3: Study tour and contribution to the SC-IAP global platform activities Output A.3.3.4: Capacity building for municipal actors (Dakar, Dianniadio, Saint Louis, etc.) and central government in planning and implementing sustainable cities strategy and tools including climate resilience Output A.3.3.5: Support to research works Output A.3.3.7: Assessment report of the financial and environmental benefits of the project outcome and its linkage with the global environmental benefits Pilar/Outcome 4. National urban policy framework strengthened to promote sustainable cities model NATIONAL COVERAGE Output A.4.1: Urban policy gap analysis and action plan for relevant reforms to strength cities sustainability including climate resilience at national level Output A.4.2: Support for the preparation of priority needed urban policy reform documents to promote cities sustainability including climate resilience at national level Output A. 4.2: Support for the preparation of priority needed urban policy reform documents to promote cities sustainability including climate resilience at national level Compliance GEF Subsidiary Agreement, GEF Effectiveness Agreement, Article V, S.01 Effectiveness | climate resilience at multiple levelsOutput A3.3.1: Knowledge sharing platform is developped with sustainable cities and good practices tools and published | | | | | | | |
|--|--|--|------------------------|--|--|--|--|--|
| SC-IAP global platform activities Output A.3.34: Capacity building for municipal actors (Dakar, Diamniadio, Saint Louis, etc.) and central government in planning and implementing sustainable cities strategy and tools including climate resilience Output A.3.35: Support to research works Output A.3.36: Support for publication of research works Output A.3.37: Assessment report of the financial and environmental benefits of the project outcome and its linkage with the global environmental benefits Pilar/Outcome 4. National urban policy framework strengthened to promote sustainability including climate resilience at national level Output A.4.1: Urban policy gap analysis and action plan for relevant reforms to strength cities sustainability including climate resilience at national level Output A.4.2 Support for the preparation of priority needed urban policy reform documents to promote cities sustainability including climate resilience at national level Output A.4.2 Support for the preparation of priority needed urban policy reform documents to promote cities sustainability including climate resilience at national level Compliance GEF Subsidiary Agreement, GEF Effectiveness Agreement, Article V, 5.01 Effectiveness | | cities including climate resilience | | | | | | |
| actors (Dakar, Diamniadio, Saint Louis, etc.) and central government in planning and implementing sustainable cities strategy and tools including climate resilience Output A.3.3.5: Support to research works Output A.3.3.6: Support for publication of research works Output A.3.3.7: Assessment report of the financial and environmental benefits of the project outcome and its linkage with the global environmental benefits Pilar/Outcome 4. National urban policy framework strengthened to promote sustainable cities model NATIONAL COVERAGE Output A.4.1: Urban policy gap analysis and action plan for relevant reforms to strength cities sustainability including climate resilience at national level Output A.4.2 Support for the preparation of priority needed urban policy reform documents to promote cities sustainability including climate resilience at national level Conditions Source Of Fund Name Type GEF Subsidiary Agreement, GEF Agreement, Article V, S.01 Effectiveness | | | | | | | | |
| Pilar/Outcome 4. National urban policy framework Output A.3.3.6: Support for publication of research works Pilar/Outcome 4. National urban policy framework strengthened to promote sustainable cities model NATIONAL COVERAGE Output A.4.1: Urban policy gap analysis and action plan for relevant reforms to strength cities sustainability including climate resilience at national level Output A.4.1: Urban policy gap analysis and action plan for relevant reforms to strength cities sustainability including climate resilience at national level Output A.4.2 Support for the preparation of priority needed urban policy reform documents to promote cities sustainability including climate resilience at national level Compliance Example Source Of Fund Name GEF Subsidiary Agreement, GEF Effectiveness Agreement, Article V, 5.01 Effectiveness | | actors (Dakar, Diamniadio, Saint l central government in planning an implementing sustainable cities str | Louis, etc.) and nd | | | | | |
| research works Output A3.3.7: Assessment report of the financial and environmental benefits of the project outcome and its linkage with the global environmental benefits Pilar/Outcome 4. National urban policy framework strengthened to promote sustainable cities model NATIONAL COVERAGE Output A.4.1: Urban policy gap analysis and action plan for relevant reforms to strength cities sustainability including climate resilience at national level Output A.4.1: Urban policy reform documents to promote cities sustainability including climate resilience at national level Output A.4.2 Support for the preparation of priority needed urban policy reform documents to promote cities sustainability including climate resilience at national level Conditions Source Of Fund Name Type GEF Subsidiary Agreement, GEF Agreement, GEF Agreement, Article V, 5.01 Effectiveness | | Output A.3.3.5: Support to resear | arch works | | | | | |
| and environmental benefits of the project outcome and its linkage with the global environmental benefits Pilar/Outcome 4. National urban policy framework strengthened to promote sustainable cities model NATIONAL COVERAGE Output A.4.1: Urban policy gap analysis and action plan for relevant reforms to strength cities sustainability including climate resilience at national level Output A.4.2 Support for the preparation of priority needed urban policy reform documents to promote cities sustainability including climate resilience at national level Compliance Source Of Fund Name GEF Subsidiary Agreement, GEF Agreement, Article V, 5.01 Description of Condition | | | lication of | | | | | |
| Pilar/Outcome 4. National urban policy framework strengthened to promote sustainable cities model NATIONAL COVERAGE Output A.4.1: Urban policy gap analysis and action plan for relevant reforms to strength cities sustainability including climate resilience at national level Output A.4.1: Urban policy gap analysis and action plan for relevant reforms to strength cities sustainability including climate resilience at national level Output A. 4.2 Support for the preparation of priority needed urban policy reform documents to promote cities sustainability including climate resilience at national level Compliance Conditions Source Of Fund Name GEF Subsidiary Agreement, GEF Agreement, Article V, 5.01 Description of Condition Effectiveness | | and environmental benefits of the and its linkage with the global env | e project outcome | | | | | |
| needed urban policy reform documents to promote cities sustainability including climate resilience at national level Compliance Conditions Source Of Fund Name Type GEF Subsidiary Agreement, GEF Agreement, Article V, 5.01 Effectiveness | urban policy framework strengthened to promote | Output A.4.1 : Urban policy ga action plan for relevant reforms to sustainability including climate | to strength cities | | | | | |
| Conditions Source Of Fund Name Type GEF Subsidiary Agreement, GEF Effectiveness Agreement, Article V, 5.01 Description of Condition | | needed urban policy reform docur cities sustainability including clim | iments to promote | | | | | |
| Conditions Source Of Fund Name Type GEF Subsidiary Agreement, GEF Effectiveness Agreement, Article V, 5.01 Description of Condition | | | | | | | | |
| Source Of FundNameTypeGEFSubsidiary Agreement, GEF Agreement, Article V, 5.01EffectivenessDescription of ConditionEffectivenessEffectiveness | | • | ce | | | | | |
| GEF Subsidiary Agreement, GEF Effectiveness Agreement, Article V, 5.01 Description of Condition | | Conditions | | | | | | |
| Agreement, Article V, 5.01 Description of Condition | | | | | | | | |
| Description of Condition | GEF | | | | | | | |
| | | | | | | | | |
| This Agreement shall not become effective until evidence satisfactory to the World Bank ha | 6 | | | | | | | |
| been furnished to the World Bank that the following condition, namely the Subsidiary Agreement has been executed on behalf of the Recipient and the Project Implementing Entity. | | | | | | | | |

| | | | R | isks | | | | |
|-------------------------------|-----------------|--------------------------------------|----------------|----------------|-----------------------|------------|-----------------------------|--|
| Risk Categor | y | | | | Rating | (S) | | |
| 1. Political and Governance | | | | | | Moderate | | |
| 2. Macroecon | omic | | | | Modera | ate | | |
| 3. Sector Strat | egies and Poli | icies | | | Substar | ntial | | |
| 4. Technical E | Design of Proje | ect or Program | | | Modera | ate | | |
| 5. Institutional | l Capacity for | Implementation | and Sust | ainability | Substar | ntial | | |
| 6. Fiduciary | | | | | Modera | ate | | |
| 7. Environmer | nt and Social | | | | Modera | ate | | |
| 8. Stakeholder | °S | | | | Modera | ate | | |
| OVERALL | | | | | Modera | ate | | |
| | | | Fina | nce | | | | |
| | | F Additional Fin on Project – P15 | 58415) | | | | | |
| Source of Fu | nds | | Proj Date | | onal Finar | ncing | Loan Closing | |
| Global Enviro | nment Fund (| GEF) | 31-E | Dec-2019 | | | | |
| 0 | | rent Project: St 841) and First A | | 0 | | | e Ch: | |
| Explanation: | | | | | | | | |
| No change in | the closing da | te, i.e. December | r 31, 201 | 9. | | | | |
| Ln/Cr/TF | Status | Original Closi Date | ng Cur Date | rent Closing | Proposed Closing I | | Previous Closing Date(s) | |
| IDA-50960 | Effective | 31-Dec-2017 | 31-E | Dec-2019 | 31-Dec-2 | 019 | | |
| IDA-56630 | Effective | 31-Dec-2019 | 31-E | Dec-2019 | 31-Dec-2 | 019 | | |
| Change in Di | sbursement H | Estimates (inclue | ding all s | sources of Fin | nancing) | | | |
| Explanation: The disbursen | nent estimates | will be updated | to reflect | the additiona | ll financing | g. | | |
| Expected Dis | bursements (| in US\$ Million) | (includi | ng all Source | s of Finan | icing |) | |
| Fiscal Year | 2017 | 2018 | | 2019 | | 2020 |) | |
| Annual | 0.75 | 1.25 | | 1.50 | | 2.00 | 4587 | |
| Cumulative | 0.75 | 2.00 | | 3.50 | | 5.50 | 4587 | |
| Allocations – Climate Chai | | onal Financing (on– P158415) | Project | Stormwater I | Managem | ent a | nd | |

| Source of | Currency | Category of | Allocation | Disbursement % (Type Total) | |
|-----------|----------|--|---|--------------------------------|--|
| Fund | • | Expenditure | Allocation Total) Proposed Proposed \$\$, \$ 5,504,587 100 ie 100 100 | Proposed | |
| GEF | US\$ | Goods, works, non- consulting services, consultants' services, Operating Costs and Training under Part A.3 and Part D of the Project | 5,504,587 | 100 | |
| | | Total: | 5,504,587 | 100 | |

Components

Change to Components and Cost

Explanation:

Due to scaling up of activities, additional funding will be allocated as follows:

Component A (Integration of Climate Risks in Urban Planning and Management) – US\$5,229,587 million

Component D (Project Coordination, Management, Monitoring and Evaluation) - US\$275,000

| Current Component Name | Proposed Component Name | Current Cost (US\$M) (Original cost – IDA and Gov) NDF parallel financing not included | Proposed Cost (US\$M) (Changes with GEF AF) | Action |
|--|----------------------------|---|---|---------|
| A. Integration of Climate Risks in Urban Planning and Management | Unchanged | 3.7 | 8.9 | Revised |
| B. Drainage Investment and Management | Unchanged | 88.2 | | |
| C. Community Engagement in Urban Flood Risk Reduction and Adaptation to Climate Change | Unchanged | 4.6 | | |
| D. Project Coordination, Management, Monitoring and Evaluation | Unchanged | 10.3 | 10.6 | Revised |
| Total: | | 106.8 | 112.3 | |

| Other Change(s) | | | | | | | | |
|---------------------------------|-----------------------|-----------|--|--|--|--|--|--|
| Implementing Agency Name | Туре | Action | | | | | | |
| Municipal Development Agency | Implementation Agency | No change | | | | | | |
| | IV. Appraisal Summary | | | | | | | |
| Economic and Financial Analysis | | | | | | | | |

Economic and Financial Analysis

Explanation:

As the AF will finance primarily technical assistance activities, rather than investments, an economic analysis is not warranted. A financial and economic analysis was prepared under the parent project and updated during the preparation of the first IDA Additional Financing in May 2015. The AF development of tools to enhance sustainability and resilience in the management of urban areas will translate into a focus on economic, environmental and social dimensions. Thus, even though no economic and financial analysis will be carried out, emphasis on economic viability and sustainability will be promoted through the planning tools.

Technical Analysis

Explanation:

The project is considered technically sound and focuses on piloting approaches to connecting national policies to local urban planning, local investment and knowledge generation. Learning from the local level to inform national policies is an innovative way to promote bottom-up approaches in Senegal. Linking local experiences to national policies is a new way of working and is expected to help lay the groundwork for more sustainable approaches in the future.

What sets the Sustainable Cities Initiative (SCI) apart from other national initiatives is its novel approach to integrating climate risks in urban planning and management. With its emphasis on comprehensive, evidence based planning, the SCI presumes that a strategic, evidence-based planning process is fundamental to urban sustainability, driving more informed decision-making and investments that can result in greater economic and resource efficiency, improved quality of life, and enhanced environmental performance. The AF also seeks to pilot an integrated approach to urban planning and management, and climate risks in Senegal which allows for a stronger capacity development of the main stakeholders at all levels, using improved and updated methodologies and tools that are applicable in local circumstances and allow for monitoring impacts over the longer term.

Social Analysis

Explanation:

The AF will replicate the participatory engagement process already initiated under the parent project in Pikine, Guediawaye, Diamniadio and Saint-Louis. Pilot micro-projects will be open to community groups and other non-governmental stakeholders and validated through the project's defined process and procedures. The project's Resettlement Policy Framework has been appropriately updated, approved and re-disclosed in country and in the World Bank's Infoshop on January 28, 2015.

Environmental Analysis

Explanation:

The SCI focuses strongly on improved environmental performance, including global benefits such as reduced Greenhouse Gas (GHG) emissions, protection of ecosystems, decreased land degradation, and decreased incidence of chemicals and waste. Global Environmental Benefits will be estimated for the SCI project and will be tracked throughout project implementation. The SCI overall has the potential to assist Senegal (and other countries) in generating global environmental benefits such as decreasing CO2 emissions, protecting soils forests, and biodiversity.

The GoS have already recognized the link between CO2 and urban planning in its current Master Urban 2035. By changing land-use patterns, densities, and urban design, The Urban Pole of Diamniadio will impact on the total level of transport activity, and then on CO2 emission associated to transport, Better land-use planning and the compactness of the city will lead to fewer or shorter motorized trips and a larger share for public transport of motorized trips. As demonstrated in cities where statistics are available, better city planning curbs carbon emission. The planning, designing and management of the urban pole of Diamniadio promote connectivity between and within neighborhoods and encourage walkability. It promotes mixed-used development making locating schools, worship spaces, shopping centers and restaurants closer to each other and housing areas cuts down on vehicle travel. In addition to that, the Government of Senegal encourages energy efficient building in the Urban Pole of Diamniadio. It will also encourage urban planting to promote a greener city. Effort is put to include ecological continuity with its huge advantages in reduction GHGs.

The methodology of GHGs estimation will be based on GHG protocol and IPCC Guidelines for National Greenhouse Gas Inventories (2006). The GHG Protocol is an internationally accepted protocol for quantifying GHG emissions. The project team will make sure the boundaries are well classified according to potential of emissions associated to operation and treatment process. Direct GHG emissions will consider three gases, CO2, CH4 and N2O are calculated. Indirect GHG emissions will also be assessed. During the project period, this tracking will go along in order to be able at the end of the project to provide accurate estimates for the short term, medium term and long term.

Risk

Explanation:

The overall AF risk rating is Moderate since the new activities are primarily technical assistance in nature. The main risks are linked to the pilot nature of the Sustainable Cities Initiative (SCI) approach which is a new concept and practice for the country, the limited knowledge about the pilot future applicability, and limited capacity among stakeholders in developing and implementing these types of activities. However, since the AF includes the preparation of PUDs which can pose safeguards risks, these will need to be assessed through a social and environmental assessment document to be prepared before the PUDs are adopted.

As mitigation measures the AF will include a capacity building program for central and local civil servants, training modules with academic institutions (Gaston Berger University of Saint-Louis as a primary partner) on SCI issues, including climate change challenges for urban practioners and students. Also the planned knowledge-sharing platform will promote the capitalization and dissemination of lessons learned and knowledge for replication by the other cities.

The ESMF and the RPF were updated, approved and disclosed in the World Bank's Infoshop and in country on January 28, 2015.

V. World Bank Grievance Redress

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB'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 WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit <u>http://www.worldbank.org/GRS</u>. For information on how to submit complaints to the World Bank Inspection Panel, please visit <u>www.inspectionpanel.org</u>.

Annex 1: Results Framework

Stormwater Management and Climate Change Adaptation Project AF2 (P158415)

| Project Development Objective | | | | | | | |
|---|--|--|--|--|--|--|--|
| Original Project Development Objective – Parent: To reduce flood risks in peri-urban areas of Dakar and improve capacity to plan and implement sustainable city management practices, including climate resilience, in selected urban areas. | | | | | | | |
| Proposed Project Development Objective – Additional Financing: The original PDO remains unchanged, i.e. to reduce flood risks in peri-urban areas of Dakar and improve capacity to plan and implement sustainable city management practices, including climate resilience, in selected urban areas. | | | | | | | |
| Results | | | | | | | |
| Core sector indicators are considered: Yes | Results reporting level: Project level | | | | | | |

| Project Deve | Project Development Objective Indicators | | | | | | | | | |
|--------------|--|--------|--------------------|-------------|--------------|---------------------|-------------|--|--|--|
| Status | Indicator Name | Core | Unit of Measure | | Baseline | Actual (Current) | End Target | | | |
| No change | Direct beneficiaries (number, core) of which female | | | Value | 0 | 125,000 | 132,000 | | | |
| | Х | Number | Date | 01-Sep-2012 | 21-Jun -2016 | 31-Dec-2019 | | | | |
| | | | | Comment | | | | | | |
| No change | Area in peri-urban Dakar protected against | | | Value | 0 | 450 | 400 | | | |
| | recurrent flooding through drainage works | | Hectare (Ha) | Date | 01-Sep-2012 | 31-May-2016 | 31-Dec-2019 | | | |
| | | (114) | Comment | | | | | | | |
| Revised | Tools related to urban resilience, including climate | | Vac/Na | Value | No | No | Yes | | | |
| | change adopted | | Yes/No | Date | 01-Sep-2012 | 21-Jun -2016 | 31-Dec-2019 | | | |

| | Proposed indicator: Urban national policy framework strengthened with sustainable cities tools, good practices and strategic master plan (GEF SCI outcome 4) | | | Comm | ent | | The PDO does not refer to the linkage between the SC pilot initiative and the national urban policy. |
|--------------|---|--------|--------------------|-------------|--|--|--|
| Intermediate | Results Indicators | - | <u>.</u> | ÷ | | | |
| | Result 1: Climate change related risks are embedded in able -orientated urban practices. | nation | al and local | urban pl | anning, manageme | ent and enforce | nent tools to |
| Status | Indicator Name | Core | Unit of Measure | | Baseline | Actual (Current) | End Target |
| Revised | Key stakeholders (persons) trained in flood risk | | Number | Value | 0 | | 400 |
| | management, urban climate change resilience and territorial planning Proposed intermediate indicator: Key stakeholders (persons) trained in flood risk management, urban climate change resilience and sustainable cities planning and practices (GEF SCI outcomes1 and 3) | | | Date | 01-Sep-2012 | 21-Jun -2016 | 31-Dec-2019 |
| | | | | Com ment | 8 MoUs under implementation + 4 training modules organized | Firm recruited, training program prepared and 2 training sessions planned by end of July 2017 | The parent project capacity building program for stakeholders will be scaled-up to integrate capacity building needs in sustainable cities management for targeted stakeholders. The new indicator is just extended to include these additional needs. |
| No change | Experience in "inter-municipal sustainable city" | Ī | Yes/No | Value | No | No | Yes |
| | practices, through concerted territorial development (CTD), improved | | | Date | 01-Sep-2012 | 21-Jun -2016 | 31-Dec-2019 |
| | | | | Com ment | | | |

| New | Assessment report of the financial and | | Yes/No | Value | No | | Yes |
|--------------|---|----------|-----------------|-------------|-----------------------|---|--|
| | environmental benefits of the project outcome exist and is shared with cities (GEF SCI outcome 2 and | | | Date | 07/01/2016 | | 31-Dec-2019 |
| 3) | | | | Com ment | | in as an be su in th de | his indicator is added the current AF to sess the financial d environmental enefits of the stainable cities pilot itiative; as well as ose related to eveloped tools and actices. |
| Intermediate | Result 2: A flood prevention system in the most vulnera | able dis | tricts in peri- | -urban ai | reas of Dakar (Pik | ine and Guediawa | ye) is established. |
| No change | Primary drainage system in Pikine and Guediawaye put it place | | Meter (m) | Value | 0 | 18,000 | 15,828 |
| | | | | Date | 01-Sep-2012 | 21-Jun -2016 | 31-Dec-2019 |
| | | | | Comm ent | | | |
| No change | An O&M stormwater drainage management system in Pikine and Guediawaye is functional | | Text | Value | No system in place | The studies were validated, and the creation of a Fund was convened on MoF already allocated funding for O&M to be used by ONAS from 2017 subjec to the signature o the sanitation fun decree expected b the end of 2017. | d Guediawaye functional. |
| No change | Drainage channels cleaned at least once per year before rainy season in Pikine and Guediawaye | | Percentage | | 0 | 90 | 100 |
| | before famy season in Fixine and Guediawaye | | | Date | 01-Sep-2012 | 31-May-2016 | 31-Dec-2019 |

| | | | Comm ent | | | |
|-----------|--|---------------|--------------|-----------------------------------|---|---|
| | Result 3: Municipalities, residents and community groups a limate change. | are empowered | to engage ac | ctively in urban flo | ood risk reduction | measures and |
| No change | People reached by IEC strategy at local and national | Number | Value | 0 | 32,400 | 60,000 |
| | level | | Date | 01-Sep-2012 | 31-May-2016 | 31-Dec-2019 |
| | | | Comment | | | |
| No change | Local flood management committees in Pikine and Guediawaye are engaged in stormwater management activities | Text | Value | Local committees identified | 9 committees created (COLIGEP) in collaboration with the local collectivities to ensure efficiency, capacity building program on ongoing implementation including trainings and equipment. | COLIGEP action plans implemented and evaluated |
| | | | Date | 01-Sep-2012 | 31-May-2016 | 31-Dec-2019 |
| | | | Comment | | | |
| No change | Eligible flood risk reduction community | Number | Value | 0 | 2 | 30 |
| i | investments completed | | Date | 01-Sep-2012 | 31-May-2016 | 31-Dec-2019 |
| | | | Comment | | | The 2016 target is 20 community investments projects |

| | | | completed. As of June 21, 2016 the project has completed 2 and 20 are on ongoing implementation. These 20 community investments projects are well advanced and will be completed before |
|--|--|--|---|
| | | | before December 2016. |

Annex 2: Detailed Description of New Project Activities

Proposed Activities for the sustainable cities initiative including the GEF Additional Financing activities and details about the two SC pilot cities (Diamniadio and Saint-Louis)

A. Sustainable Cities Initiative (SCI) Objective

1. The rapid urbanization of cities mediates a range of complex processes that expose urban populations to social, economic and environmental hazards. The convergence of these hazards with emerging climate change impacts increases the vulnerability of populations, particularly the urban poor, to the changing conditions and illustrates the increasing importance of examining climate change processes and responses at urban scale. To reduce urban vulnerability and promote development efforts, decision-makers, technicians and researcher need to engage with issues of climate change and urban development. Several plans had been initiated by the central government, but as for the plan of 2000, they lack concrete implementation plans, and suffer from weak ownership by local authorities, deficiencies in territorial planning and weak capabilities in local communities and decentralized central institutions. Indeed, their complexity makes them difficult to implement and calls for a paradigm shift, going back to basics of core implementation for sustainable cities -- sufficient land allocated to public space, protection of wetlands and resilience to adverse climate and other natural events.

2. The Senegalese Sustainable Cities Initiative supports integrated and climate resilient urban planning and management at national and local level. To overcome these problems and establish sustainable urban development in both areas the Sustainable Cities GEF Initiative and additional funding will reinforce the "Stormwater Management Project and Adaptation to climate Change" (PROGEP) existing Sustainable sub-component, particularly through the development and strengthening of urban plans incorporating sustainability and climate risk, conducting strategic studies on sustainable cities, implementing community investment projects, strengthening intermunicipal and developing of knowledge and skills. The project "Sustainable Cities Initiative" that targets the Dakar-Diamniadio Axis and the city of St. Louis proposes to strengthen and complement the PROGEP with initiatives promoting sustainable city approach in both cities.

3. The main objective of the SCI is to "improve capacity to plan and implement sustainable city management practices, including climate resilience, in selected urban areas" with four outcomes as follow:

- ✓ Outcome 1. Improved planning and management capacities of participating pilot cities and central government for sustainable cities
- ✓ Outcome 2. Investments in pilot cities generate local and global environmental benefits.
- ✓ Outcome 3. Increased knowledge and partnerships on sustainable cities and climate resilience at multiple levels
- ✓ Outcome 4. National urban policy framework strengthened to promote sustainable cities model.

4. In order to achieve this outcome, it is indicated to refer to the existing urban plans including local urban policies. This will help to design outcome 1 to strengthen existing mechanisms instead

of creating competing activities. This outcome will be achieved in two different pilot cities with different characteristics: The Urban Pole of Diamniadio and the agglomeration of Saint Louis. The details of activities by outcome, pilot cities and at national level is provided in Table 1 of the AF project paper.

B. Rationale of the selection of the two pilot cities

5. The selection of the two pilot cities was decided during the PROGEP first AF which integrated a new sub-component A3 titled *piloting Sustainable cities through climate resilience measures*. The stakeholders were consulted to decide about relevant cities to select for this Sustainable Cities piloting project for Senegal. The two selected cities are representative cases of the main urban challenges the country is facing in line with the government agenda on developing resilient urban poles under the "Senegal Emergent Plan" (PSE): Diamniadio is an emerging high priority urban pole expected to serve as Senegal's urban model. Saint-Louis is an old coastal city that is exceptionally vulnerable to climate change with related impacts (see level rise, coastal erosion etc.). The Saint-Louis case is representative of Senegal cities along the coast which are home to 60% of the national population and account for 68% of the GDP; as well as existing cities which are facing lack of good urban planning and management and increasing urban risk.

C. Description of the SCI activities

Component A: Integration of Climate Risks in Urban Planning and Management (Total: US\$8.82 million IDA/GEF) (NDF parallel co-financing: US\$7.2 million)

Sub-component A.3. Piloting Sustainable Cities through Climate Resilience Measures (Total: US\$9.2 million, of which IDA US\$3.7 million and GEF US\$5.229587 million); (NDF parallel co-financing: US\$5.6 million).

6. The sub-component A.3 will be restructured to reinforce the "sustainable cities" pilot activities and sub-component cost at the pilot cities (Saint-Louis and Diamniadio) and national levels in order to help strengthen the National Urban Policy Framework. The overall objective of this revised sub-component, which remains in line with the original project objectives, is to improve capacity to plan and implement sustainable city management practices, including climate resilience to influence Government urban development program.

7. At the pilot cities level, the GEF additional funding will be used to scale-up and pilot climate resilience interventions under the Sustainable Cities concept in two selected sites with different characteristics (see Table 1), namely: (i) Diamniadio, an emerging high priority urban pole; and (ii) Saint-Louis, an old city that is exceptionally vulnerable to climate change variations and needs urgent measures to build resilience.

8. At the national level, the scaling up will include activities for systematic analysis and dissemination of lessons learned and best practice knowledge from the pilot cities to support future efforts by the Government and sharing experiences and lessons learned within the international arena; as well as activities for the strengthening of the national urban policy framework to promote

cities sustainability. It will also finance strategic studies and master plans for urban policy strengthening and reform to promote cities sustainability, including climate resilience.

Pilot cities coverage: Saint-Louis and Diamniadio

A.3.1. Case of the Emerging Urban Pole of Diamniadio (Total: US\$2.6 million, of which IDA US\$0.6 million, and GEF US\$2.0 million funding); (NDF parallel financing US\$1.3 million).

9. Diamniadio is located about 30 kilometers from Dakar city center. The city is at the heart of a governmental priority development project for accelerating economic growth and reducing poverty. The development project is carried out on a site of 2,500 hectares and will accommodate significant population growth, continued growth of industrial and commercial activity, ultimately relocate Government services, house a new university, and establish a framework for the activation of commercial facilities in partnership with the private sector and associated creation of new jobs. A new toll road connecting Diamniadio city to Dakar was inaugurated in August 2013. By providing an alternative site with modern transportation, a new international airport, power, communication systems, water, waste removal, and other infrastructural systems, the GoS aims to attract domestic and international investments and reduce the overwhelming urban management challenges of Dakar. The Detailed Urban Plan for Diamniadio (1999) anticipated a total population of 73,000 by 2025. Of the targeted 40,000 new residential homes, 15,000 are being planned and will reportedly be constructed in the next three to four years.

10. The new urban pole of Diamniadio is expected to serve as Senegal's urban model for a sustainable, carefully planned and managed city. The development of Diamniadio will in itself generate significant climate resilience benefits by increasing the opportunities for housing and work in pre-developed areas thus relieving the pressure on Dakar whose uncontrolled growth is one of the root causes of the city's storm-water flooding problems. Nevertheless, it is essential that planning and development of Diamniadio broader zone is taking account of climate risks, and impact of dense rainfall runoff facing the city. One of the identified issues is that the city is located in an important groundwater resource area (e.g. the Maastrichtian aquifer and shallow aquifers that provide water for the city of Dakar City). Moreover, there are 4-5 irrigation dams located within the city boundaries that will have consequences for land use, settlement restrictions and flood risk implications. Other climate-related issues include inundation and storm-water management.

11. The AF will reinforce the identification and assessment of the climate-related challenges facing the city and assist in the immediate integration of these aspects in urban development planning and management and associated modelling, risk mapping, monitoring, knowledge management, and targeted investments.

12. The outcome of the AF support will be a tangible contribution to establish Diamniadio as a sustainable city by a strengthened focus on climate change vulnerability and risk elements in urban development planning, management, and investments. To pave the way for enhanced sustainability, this sub-component will pro-actively explore and promote opportunities for engaging with the private sector in partnership building and financial mobilization. The sub-component will also add value by developing a model of connecting the new urban pole of

Diamniadio to the greater Dakar area utilizing sustainable cities principles. Inter-communal cooperation on sustainable cities including climate resilience interests will be also promoted.

13. *Project activities and responsible agencies*. The responsible agency is the Department for the Promotion of the Diamniadio Urban Pole (DGPU) established under the President's Office with technical support for implementation from MDA. The activities in Diamniadio will include consultant services, equipment, small works and operational support:

- A.3.1.1 Diagnostic study and city action plan: This activity will consist of carrying out a diagnostic study of the urban catchment and climate prone assets, including vulnerability and risk scenarios, resulting in a Sustainability City Strategy and Action Plan with pilot resilience measures and investment projects. The study will focus on environmental and natural resource sustainability, urban sustainability, and governance and fiscal management (US\$0.3 million).
- A.3.1.2 Urban development study: the activity will consist of carrying out a catchment study including the development of a wetlands management plan at the city level to prevent settlements on these areas (US\$0.5 million).
- A.3.1.3 Development and dissemination of detailed urban plans including climate change risk dimension for Diamniadio city and peri-urban areas: A detailed urban plan will be prepared for Diamniadio and peri-urban areas to promote the integrated management of the zone at spatial and socio-economic level. This detailed urban plan will give consideration to the protection of watersheds and public spaces, and the development of streets that are people friendly and that do not promote motorized means of transport. They will also promote mixed neighborhood. They will anchor the strengthening of land administration and governance. Hence, they will promote ecological continuity. In a long term, it will reduce emissions of CO2 and promote the creation of a low carbon city. With the promotion of the use of ICT, this will also strengthen the urban planning and management. It will align urban planning and transport planning. This will reduce land degradation and promote biodiversity. Finally, it will promote the creation of sustainable cities through integration of climate changes and risks in urban planning and management (US\$0.5 million).
- A.3.1.4 Enhancing inter-communality within the Greater Rufisque Agglomeration (CAR). The activity will consist of enhancing inter-communality within the Greater Rufisque agglomeration (CAR). The Urban Pole of Diamniadio is, indeed built using land from other communes in the Rufisque Department which are: Diamniadio, Bargny, and Bambilor. (US\$0.3 million).
- A3.1.5 Identification and implementing of the pilot micro-projects. Potentially eligible projects identified in the City's Action Plan (Activity A3.1.1) will be selected for pre-feasibility studies using experiences and procedures from the community-based investment projects under the original project component C. Social facilitators hired by the project will assist cities in carrying out the selection process focusing on those directly relevant for integration of climate changes in urban planning and management; as well as to put in place needed strategies for the ownership of the pilot investments, sustainable operation and maintenance system. Agreement between beneficiary cities and the project will include these aspects of sustainability (US\$2.0 million).
- A.3.1.6 Developing a model of connecting the urban pole of Diamniadio to greater Dakar. The activity will support the Government identify key challenges and model (orientations) for connecting the urban pole of Diamniadio to Dakar and the rest of the country, in order to fulfil

its primary objective, which is to decongest Dakar and to serve as a sustainable city model (US\$0.3 million).

14. The GEF AF resources will reinforce the ongoing IDA and NDF allocations to the following activities in Diamniadio: (i) the promotion of intercommunal cooperation in the integration of city sustainability management practices between the Diamniadio Urban pole and its neighbors; (ii) the implementation of priority actions and micro-projects related to improving quality of life in the city using experiences and procedures from the community investment projects. These new activities will be financed through the GEF AF; and (iii) development of a model of connecting the urban pole of Diamniadio to Dakar and to the rest of the country.

A.3.2. Case of Saint-Louis (Total US\$6.85 million, of which IDA US\$0.65 million and GEF US\$1.7 million, (NDF parallel financing US\$4.3 million).

15. Saint-Louis city is located in the coastal zone at the mouth of the Senegal River. The historical city (registered as a World Heritage Site by UNESCO in 2000) is exposed to multiple natural hazards exacerbated by climate change impacts such as sea level rise (SLR) and increased frequency and intensity of sea storm surges, floods and gale force winds. During 1998 and 2000, almost all of the districts of Saint-Louis were flooded. The city is built on alluvial land at a maximum of only 3.5 meters above sea level. SLR causes infiltration of saltwater in the water table and reduces the outflow of water from the delta into the ocean during floods, thus aggravating seasonal floods. Along the coast, the dune strip ("Langue de Barbarie") is exposed to the combined effects of currents and tides, erosion and other morphological dynamics as well as increases in the intensity and frequency of storms and strong winds. Reduced natural vegetation, with increased human presence and badly designed human protection measures, has exacerbated dune erosion. Dune erosion, in turn, increases the vulnerability of adjacent areas such as the low income fishing settlement of Nguet Ndar (about 22,000 fishermen). In some cases, the threats require the relocation of communities. The adjacent coastal areas are affected by increases in sea temperature with associated detrimental impacts on marine ecosystems and the livelihoods that depend upon them (longer distances to catch fish, extreme weather events, reduced fish productivity, etc.). After fishing, tourism is becoming the second biggest economic sector and agriculture remains essential for the urban economy as the region of Saint-Louis produces over 48 percent of the national output of the horticulture products.

16. The development state of Saint-Louis is impacted by a number of limitations and challenges: (i) high population growth (anticipated doubling of the population by 2030 e.g. more than 300,000 inhabitants by 2030, against 160,000 inhabitants today³) and associated land scarcity and increase in population density; (ii) environmental and ecosystem deterioration such as mangrove destruction; (iii) financial constraints and economic management shortcomings hampering effective development of the city and its hinterland; (iv) worsening living conditions and livelihood, affected by hampered navigation and harbor operations, caused by the un-checked instability of the coastal zone areas and insufficient urban storm-water management to deal with the devastating floods; (v) serious deficiencies in urban waste management and sanitation infrastructure and services; and (vi) poor planning and management resulting in increasing informal settlements and encroachment into fragile and flood-prone areas. These and other city

³ International workshop on urban management Saint-Louis 10-24 April, 2010

development constraints are posing significant political, technical, and economic challenges that need to be resolved by multidisciplinary and concerted efforts with the participation of local actors.

17. The city's vulnerability to climate change induced events is high, threatening economic infrastructures, assets and networks including residential homes and people lives' and health. However, the city administration and Gaston Berger University (UGB) have been actively seeking support from a range of partners on urban climate change governance issues including awareness raising, identification of vulnerabilities of sectors and social groups, research studies on resilience responses, public participation campaigns, etc. But these efforts have remained uncoordinated and without visible improvement of urban planning, management and climate resilient housing and infrastructure standards. Moreover, experience has shown that urban climate change governance cannot stop at the city boundaries and requires a robust cooperation and coordination framework across sectors and actors at communal - and in the case of Saint-Louis - international level.

18. The World Bank-funded coastal zone vulnerability study⁴ (2012) provides important knowledge, analysis, and recommendations related to the impacts of climate change and variability on the urban environment, including economic analysis of different resilience options. The results of the World Bank study aimed at integrating climate resilience in development plans relating to Saint-Louis and other focal cities, including preparation of the Integrated Coastal Zone Management Plan (ICZM) under Ministry of Environment with the support of the European Union (EU), and to strengthen the Government's capacity accordingly. Study findings will provide an important knowledge platform for the AF interventions.

19. The AF support will be a tangible contribution to the existing sustainable cities objectives in Saint-Louis. This will contribute to establishing Saint-Louis as a sustainable city by improved knowledge about the climate change vulnerability and risks facing the city and recommended resilience measures. The activities will focus on strengthening the enabling environment and executing authorities through integration of climate aspects in urban development planning, management, and financial mobilization for investments.

20. Project activities and responsible agencies. The responsible overseeing and coordinating agency is the Local Government of Saint-Louis with multiple executing agencies and technical support from MDA. The activities in Saint-Louis will include consultant services, equipment, small works and operational support:

- A.3.2.1 Diagnostic study and city action plan: This activity will consist of carrying out a diagnostic study of the urban catchment and climate prone assets, including vulnerability and risk scenarios, resulting in a Sustainability City Strategy and Action Plan with pilot resilience measures and investment projects. The study will focus on environmental and natural resource sustainability, urban sustainability, and governance and fiscal management. (US\$0.3 million).
- A.3.2.2 Modelling and environmental monitoring of the coastal zone of Saint-Louis: This activity consist of undertaking urban environment and natural resources studies, surveys and investigations to develop and operationalize a system for climate and environmental modeling

⁴ The economic and spatial study of the vulnerability and adaptation of coastal areas to climate change in Senegal, Egis international, *Direction de l'Environnement et des Etablissements Classés du Sénégal* /World Bank, June 2013

and monitoring the coastal zone of Saint-Louis. This key activity will include: (i) hydroclimatological data collection and rain-flow modelling, river-flow and bathymetric modelling and surveys, hydrodynamic and hydro-sedimentology modelling including software, training, and future monitoring arrangements, assessment of climate vulnerability and risks of urban run-off and inundation. This activity will also address the methodology, institutional coordination mechanism between agencies involved, equipment and operational support for monitoring agency: DEEC/DREEC with support from the Directorate for Water Resources Management and Planning (DGPRE/DA), National Maritime Agency (ANAM), UGB, OMVS/SOGEM, Regional Directorate of Urbanism and Housing (DRUH) and Regional Development Agency (ARD) (US\$3.75 million).

- A.3.2.3 Update and extension of the Urban Master Plan for Saint-Louis: The activity will support the update and extension of the Urban Master Plan for Saint-Louis which is out of date, ensuring integration of the climate risk dimension including capacity building of key authorities and community actors. *Implementing Agency:* DRUA/DUH/MDA (US\$0.4 million).
- A.3.2.3.1 Develop new detailed urban plans (PUD) for the city peri-urban areas integrating climate risks and sustainability requirements: Detailed urban plans will be prepared in the intervention areas (Saint-Louis and peri-urban areas) to ensure integration of the climate risk dimension including capacity building of key authorities and community actors. *Implementing Agency:* DRUA/DUA/MDA (US\$0.7 million).
- A.3.2.4 Establishment of a territorial integrated GIS: The activity will support establishing a client-server and multi-user GIS system oriented towards simulated impact of events, vulnerability analysis, and production of risk maps. This will also include a WebGIS application for sharing information with technical staff and public communication. *Implementing Agency:* Commune of Saint-Louis (US\$0.2 million).
- A3.2.5 Promotion of inter-communal cooperation on sustainable cities including climate resilience interests: The activity will consist of Enhancing inter-communality (Saint-Louis, Ndiebene Gandiol, etc.). The project would support cooperation and dialogue between neighbor communes for decision making in climate resilience preparedness, through workshops, sensitization, training, generation and dissemination of relevant management tools. *Implementing Agency:* Regional Development Agency (*Agence Régionale de Développement-*ARD) (US\$0.3 million).
- A3.2.6: Identification and implementing of the pilot micro-projects: Potentially eligible projects identified in the City's Action Plan (Activity A3.1.1) will be selected for prefeasibility studies using experiences and procedures from the community-based investment projects under the original project component C. Social facilitators hired by the project will assist cities in carrying out the selection process focusing on those directly relevant for integration of climate changes in urban planning and management; as well as to put in place needed strategies for the ownership of the pilot investments, sustainable operation and maintenance system. Agreement between beneficiary cities and the project will include these aspects of sustainability. *Implementing Agency:* Commune of Saint-Louis with involved actors

in the project implementation and support from MDA (fiduciary aspects and technical assistance) (US\$1.0 million).

21. The GEF AF resources will reinforce the ongoing IDA and NDF allocation to these following activities in Saint-Louis: (i) the promotion of intercommunal cooperation in the integration of city sustainability management practices between the municipality of Saint-Louis and its neighbors; (ii) the implementation of priority actions and micro-projects related to improving quality of life in the city using experiences and procedures from the community investment projects. These new activities will be financed through the GEF AF: (iii) development of detailed urban plans integrating climate resilience aspects.

National Coverage

22. The GEF AF will help Strengthening National framework aspects for urban governance that integrates cities sustainability requirements as well as preparing a financial study to assess the economic added value of developed sustainable cities approach and tools as well as orient municipalities in financing sustainable cities strategy. The GEF AF will also contribute to financing the capitalization of generated knowledge through a Platform for sharing knowledge and partnership in planning and managing resilient and sustainable cities.

A.3.3. Capitalization of generated knowledge and development of a Platform for sharing knowledge and for partnership in planning resilient and sustainable cities (Total: US\$1.95 million of which IDA US\$0.75 million and GEF US\$1.2 million)

23. The outcomes and lessons learned from the project (tools, studies, communication success stories, best practices, inter-municipality promotion challenges, climate change resilience experiences, urban sustainability challenges in tropical developing city, pilot projects benefits etc.) will be packaged and made easily accessible through websites, academia curricula, experience sharing visits, and workshops.

24. Knowledge and lessons learned from the two pilot cities will serve as a basis for further replication and up-scaling. Private sector developers and investors, particularly in Diamniadio, will have access to knowledge on climate-related risks (such as floods, sea level rise, erosion, and salinization) and resilience measures which they can use in planning their operations and investments. Knowledge management and lessons learned will be made accessible to local and national stakeholders, and at regional and international level. The project will seek to use and reinforce existing site-specific knowledge management mechanisms and technical expertise, e.g. universities and research institutes, for urban climate resilience and resilience building aimed at different target groups and media from the local to international levels. The activities will include consultant services and operational costs.

25. Preparing and implementing a sustainable city knowledge management plan: Knowledge transfer includes national sustainable city/climate change resilience workshops, study tours, technical assistance (TA), research and development of training modules, for example on knowledge management, sustainable and resilient cities, climate change resilience, coastal erosion, modeling governance and environmental monitoring as well as university exchange and

partnership programs. A knowledge document describing the sustainable city pilot approach, process and results will be developed and disseminated at national and international levels before the end of the project. Implementing Agency: MDA in collaboration with the Gaston Berger University (UGB) of Saint-Louis.

26. The section A.3.3 on knowledge capitalization and sharing, partnership in planning resilient and sustainable cities will include:

- A3.3.1 Development of knowledge sharing platform for sustainable cities and publication of good practices tools (capitalization of generated knowledge) (*US\$0.3 million*).
- A.3.3.2 Development of training module design in sustainable cities including climate resilience training program in sustainable cities including climate resilience tools developed (*US\$0.2 million*).
- A.3.3.3 South-South cooperation, Study tour and contribution to the SC-IAP global platform activities (*US\$0.4 million*).
- A.3.3.4 Capacity building for civil servants at municipalities (Dakar, Diamniadio, Saint Louis, etc.) and central levels in planning and implementing sustainable cities strategy and tools including climate resilience. Capacity building workshops are organized at central level as well as at local level using instruments and tools for integrating climate changes and risks in urban planning and management (*US\$0.5 million*).
- A.3.3.5 Support to research work: The activity will consist of supporting one to two students from Saint-Louis University preparing research work for Bachelor or PHD level on new themes of sustainable cities or/and climate resilience (*US\$0.025 million*).
- A.3.3.6 Support for publication of research work: The activity will consist of supporting academic teacher involved in the sustainable cities initiative in preparing and publishing scientific articles on the SCI experiences and lessons learned in Senegal (*US\$0.025 million*).
- A3.3.7 Assessment report of the financial and environmental benefits of the project outcome and its linkage with global environmental benefits: the output will consist of a report assessing at national scale and for global level the environmental (including GHG emission) and financial benefits of the sustainable cities piloting initiative, good practices and tools developed under the project (*US\$0.5 million*).

The methodology of GHGs estimation will be based on GHG protocol and IPCC Guidelines for National Greenhouse Gas Inventories (2006). The GHG Protocol is an internationally accepted protocol for quantifying GHG emissions. The project team will make sure the boundaries are well classified according to potential of emissions associated to operation and treatment process. Direct GHG emissions will consider three gases, CO2, CH4 and N2O are calculated. Indirect GHG emissions will also be assessed. During the project period, this tracking will go along in order to be able at the end of the project to provide accurate estimates for a short term, medium term and long term.

27. The GEF and IDA resources will support the preparation and dissemination of the outcomes and lessons learned, though, inter alia, the development of related websites, preparation of academia curricula, organization of study tours and workshops on knowledge management, sustainable and resilience urban areas, coastal erosion prevention. This will include: (i) capitalization of lessons learned and generated knowledge; (ii) development of training modules on climate resilience and city sustainability management; (iii) testing of the training modules and support to the first cohort of trainees; (iv) research and publications on climate resilience in the intervention area; and (v) study tours for experience sharing and learning.

A3.4 Strengthening of the national urban policy framework to promote sustainable cities model (Total: US\$0.3 million of which GEF US\$0.3 million)

28. The integration of climate changes and risks will be effective and sustainable only when they are embedded in the National Urban Policy. In order to strengthen the national urban policy framework, the Senegalese SCI will collaborate with the national implementing agencies including the Department of Urbanism and Architecture (DUA) and the Department of Environment and Classified Institutions (DEEC) to prepare the situation analysis of the national urban policy. National urban policy as well as urban plan documents will be comprehensively reviewed. This work will assess how components of sustainable cities, particularly climate changes and risks, have been considered in the national urban policy, identify the gaps and propose an action plan to address the gaps. This document should contribute address mechanisms put in place to implement national urban policies recognizing that numerous acute urban issues are associated with both lack of adequate urban policies and lack of implementing existing urban policies.

29. The GEF AF will also support the preparation of priority needed urban policy reform documents to promote cities sustainability including climate resilience at national level. This output will be realized with the combination of: a) the gap analysis document that informs the place of climate change and risks on the national urban policy, gaps and action plan to address the gaps; b) lessons learned from the two pilot cities on the integration of climate changes and risks in urban planning and management; c) tools and instruments developed in the capitalization and dissemination of lessons learned. This will require close collaboration with the national agencies in charge of preparing national policies and national urban policies towards the implementation of national and global agendas.

A3.4.1: Urban Policy gap analysis and action plan for relevant reforms to strengthen cities sustainability including climate resilience at national level: In order to strengthen the national urban policy framework, the Senegalese SCI will collaborate with the national implementing agencies including the Department of Urbanism and Architecture (DUA) and the Department of Environment and Classified Institutions (DEEC) to prepare the situation analysis of the national urban policy. This work will assess how components of sustainable cities, particularly climate changes and risks, had been considered in the national urban policy. However, it is important to recognize that urban national policy goes beyond the planning of the cities, but address several other economic, social components that make a city sustainable. Recently, the SDGs and the COP21 agendas have been approved by members' states among them Senegal. Both agendas aim to promote sustainable development and address climate change among their targets, it is also important to assess how Senegal is undertaking the implementation of these different agendas in the national urban policy. This document will address mechanisms put in place to implement national urban policies recognizing that numerous acute urban issues are associated to both lack of adequate urban policies and lack of implementing existing urban policies. (US\$0.1 million).

• A3.4.2: Support for the preparation of priority needed urban policy reform documents to promote cities sustainability including climate resilience at national level: This output will consist of preparing key needed reform documents such as draft legal documents and/or manual of procedures for the central and local government based on a) the output A3.4.1 that informs on the place of climate change and risks on the national urban policy; b) lessons learned from the two pilot cities on the integration of climate changes and risks in urban planning and management; c) tools and instruments developed in the capitalization and dissemination of lessons learned. This will require close collaboration with the national agencies in charge of preparing national policies and national urban policies towards the implementation of national and global agendas. (US\$0.2 million).

30. **Component B – Drainage Investments and Management** (Total: US\$88.2 million, of which: IDA: US\$78.1 million; GoS: US\$10.1 million); (NDF parallel co-financing: US\$0.6 million). No restructuring and additional financing are expected under this component. The Component will remain the same as in the parent project.

31. Component C. Community engagement in urban flood-risk reduction and adaptation to climate change (Total US\$4.6 million, of which: IDA: US\$4.6 million); (NDF parallel co-financing: US\$0.8 million). No restructuring and additional financing are expected under this component. The Component will remain the same as in the parent project. The responsible executing agency remains MDA.

32. **Component D. Project coordination, management, monitoring and evaluation**. (Total US\$10.575 million, of which: IDA: US\$4.1 million; GoS: US\$3.5 million/MDA: US\$2.6 million; GEF: US\$ 0.275 million); The component will remain unchanged in design but will receive US\$0.275 million additional financing from the GEF allocation to support the "sustainable cities activities" monitoring and technical assistance consultancy. The component will support project coordination, supervision, financial management, communication and outreach, including: (i) supervision of implementation of the Safeguard Documents; (ii) monitoring and evaluation of the Project; (iii) employment of a monitoring and evaluation specialist; and (iv) provision of Training, Operating Costs, goods, and services required for the purpose. MDA remains the implementing agency in collaboration with key stakeholders such as local authorities and the national sanitation office (ONAS). Additional resources will be allocated to cover the operational costs of the Sustainable cities scale-up activities.

33. Component D comprises two sub-components: (i) Project coordination and management, and (ii) Monitoring and evaluation. It aims to provide efficient and effective management support for project implementation and monitoring and evaluation. The project has been shortlisted as candidate for a World Bank-internal impact evaluation process and adequate resources will be made available. This will be achieved by supporting the MDA with adequate technical and fiduciary staffing, operational support and equipment and guided by a detailed project implementation manual and M&E plan.

Annex 3: Revised Project Costs Senegal: Stormwater Management and Climate Change Adaptation Project Additional Financing (P158415)

| Proposed Activities by Component | Original (US\$m) IDA and GoS | Updated Estimate/ Actual IDA, GoS and GEF (US\$m) | Source Financing (US\$m) | | | |
|--|---------------------------------------|--|-----------------------------|------|--------------------------------|------|
| | | | IDA | GoS | NDF (parallel financing) | GEF |
| A. Integration of Climate Risks in Urban Planning and Management | | | | | | |
| A.1. Urban Planning and Management | 0.8 | 0.8 | 0.8 | | 1.6 | |
| A.2. Institutional strengthening of central government departments and municipalities | 0.8 | 0.8 | 0.8 | | 0.5 | |
| A.3. Piloting Sustainable Cities through climate resilience measures in Diamniadio and Saint-Louis | 2.0 | 7.3 | 2.0 | | 5.0 | 5.3 |
| Total Component A: | 3.7 | 8.8 | 3.7 | | 7.2 | 5.3 |
| B. Drainage Investment and Management | | | | | | |
| B.1. Drainage investments | 79.8 | 79.8 | 74.5 | 5.3 | 0.6 | |
| B.2. Operating and maintenance of drainage system | 8.4 | 8.4 | 3.7 | 4.8 | | |
| Total Component B: | 88.2 | 88.2 | 78.2 | 10.1 | 0.6 | |
| C. Community Engagement in Urban Flood Risk Reduction and Adaptation to Climate Change | | | | | | |
| C.1. Flood resilience awareness, communication and community capacity building | 1.4 | 1.4 | 1.4 | | 0.8 | |
| C.2. Flood risk-reduction community- investments | 3.2 | 3.2 | 3.2 | | | |
| Total Component C: | 4.6 | 4.6 | 4.6 | | 0.8 | |
| D. Project Coordination, Management, Monitoring and Evaluation | | | | | | |
| D.1. Project Coordination and Management | 9.7 | 9.7 | 3.7 | 6 | 0.5 | 0.27 |
| D.2. Monitoring and Evaluation | 0.6 | 0.6 | 0.5 | | 0.4 | |
| Total Component D: | 10.3 | 10.6 | 4.1 | 6 | 0.4 | 0.3 |
| Total Project: | 106.8 | 112.3 | 90.6 | 16.1 | 9.0 | 5.5 |

Note: Figures in this table have been rounded up to the nearest single decimal point.

Sub-component A3 (Piloting Sustainable cities through climate resilience measures in Diamniadio and Saint-Louis): Detailed activities and costs

| | | IDA | NDF | GEF | TOTAL |
|---------------------------------------|--|-------------|------------|------------------|--------------|
| Urban Pole | of Diamniadio | | | | |
| Pilar/Outcome for sustainable | 1. Improved planning and management capacities of p cities | articipatin | g pilot ci | ties and central | l government |
| | A.3.1.1. Diagnostic study and city action plan & stakeholder capacity building need assessment | | 0.3 | | 0.3 |
| | A.3.1.2. Urban development study | | 0.5 | | 0.5 |
| | A.3.1.3. Develop Detailed Urban Plans (PUD) for Diamniadio city and peri-urban areas integrating climate risks and sustainability requirements | | 0.5 | | 0.5 |
| Reinforced | A.3.1.4. Promotion of inter-communal cooperation on sustainable cities including climate resilience interests | 0.1 | | 0.2 | 0.3 |
| New | A.3.1.6. Develop a model of connecting the urban pole of Diamniadio to Dakar and to the rest of the country | | | 0.3 | 0.3 |
| | vestments in pilot cities generate local and global | | | | |
| environmental | | 0.5 | | 1.5 | |
| Reinforced | A.3.1.5. Identification and implementation of priority projects for investments and preparation of sub-projects technical documents, including technical specifications, budgeting, timeframe, person resources, and institution platforms | 0.5 | | 1.5 | 2 |
| Total (Diamn | | 0.6 | 1.3 | 2.0 | 3.9 |
| · · · · · · · · · · · · · · · · · · · | · · · · · · · · · · · · · · · · · · · | | | | |
| Saint Louis | city | IDA | NDF | GEF | TOTAL |
| Pilar/Outcome for sustainable | 1. Improved planning and management capacities of p cities | articipatin | g pilot ci | ties and centra | l government |
| | A.3.2.1. Diagnostic study and city action plan and stakeholder capacity building need assessment | | 0.3 | | 0.3 |
| Reinforced | A.3.2.2. Modelling and environmental monitoring of the coastal zone of Saint-Louis | 0.05 | 3.4 | 0.3 | 3.75 |
| | A.3.2.3. Update and extension of the Urban Master Plan for Saint-Louis and develop new detailed urban plans (PUD) for the city peri-urban areas integrating climate risks and sustainability requirements | | 0.4 | | 0.4 |
| New | A.3.2.3.1. Develop new detailed urban plans (PUD) for the city peri-urban areas integrating climate risks and sustainability requirements | | | 0.7 | 0.7 |
| | A.3.2.4. Establishment of a territorial integrated GIS | | 0.2 | | 0.2 |
| Reinforced | A.3.2.5. Promotion of inter-communal cooperation on sustainable cities including climate resilience interests | 0.1 | | 0.2 | 0.3 |
| | 2. Investments in pilot cities generate local and mental benefits. | | | | |

| D 1 6 1 | | 0.5 | | 0.7 | |
|------------------------|--|-------------|-----------|-------------------|-----------------|
| Reinforced | A3.2.6. Identification and implementation of priority projects for investments and preparation of | 0.5 | | 0.5 | 1 |
| | sub-projects technical documents, including | | | | |
| | technical specifications, budgeting, timeframe, | | | | |
| Total Saint Louis | | 0.65 | 4.3 | 1.7 | 6.65 |
| National Coverage | | IDA | NDF | GEF | TOTAL |
| | 3. Increased knowledge and partnerships on sustainabl | e cities an | d climate | e resilience at n | nultiple levels |
| Reinforced | A3.3.1. Development of knowledge sharing | 0.1 | | 0.2 | 0.3 |
| | platform for sustainable cities and publication of good practices tools (capitalization of generated knowledge) | 011 | | 0.2 | |
| Reinforced | A.3.3.2. Development of training module design in sustainable cities including climate resilience | 0.1 | | 0.1 | 0.2 |
| Reinforced | A.3.3.3. Study tour and contribution to the SC-IAP global platform activities | 0.2 | | 0.2 | 0.4 |
| Reinforced | A.3.3.4. Capacity building for civil-servants at municipalities (Dakar, Daimniadio, Saint Louis, etc.) and central levels in planning and implementing sustainable cities strategy and tools including climate resilience (training) | 0.3 | | 0.2 | 0.5 |
| Reinforced | A.3.3.5. Support to research works | 0.025 | | 0 | 0.025 |
| Reinforced | A.3.3.6. Support for publication of research works | 0.025 | | 0 | 0.025 |
| New | A3.3.7. Assessment report of the financial and environmental benefits of the project outcome and its linkage with the global environmental benefits | | | 0.5 | 0.5 |
| Total Knowle | dge platform in Sustainable Cities | 0.75 | | 1.2 | 1.95 |
| Pilar/Outcome | 4. National urban policy framework strengthened to pr | comote sus | tainable | cities model | |
| New | A.4.1. Urban Policy gap analysis and action plan for relevant reforms to strength cities sustainability including climate resilience at national level | | | 0.1 | 0.1 |
| New | A.4.2. Support for the preparation of priority needed urban policy reform documents to promote cities sustainability including climate resilience at national level | | | 0.2 | 0.2 |
| Total Nationa | l Urban Policy | | | 0.3 | 0.3 |
| | | IDA | NDF | GEF | TOTAL |
| TOTAL Sub-component A3 | | 2 | 5.6 | 5.229587 | 12.829587 |