



SAINT-LOUIS: ENSURING THE SUSTAINABLE DEVELOPMENT OF A HISTORIC CITY IN DANGER AND ITS SURROUNDING AREA

The city of Saint-Louis, Senegal, and its surrounding area, are exposed to multiple natural hazards that have been aggravated in recent years by climate change. To address this situation, the Stormwater Management and Climate Change Adaptation Project (PROGEP) has helped to establish a sustainable vision of the agglomeration, by capitalizing on better knowledge of the vulnerability and climate risks to which it is exposed, strengthening a favorable environment and integrating climate aspects into the planning and management of urban development.

■ BACKGROUND

Saint-Louis is a coastal city, located in northern Senegal, a few kilometers from the border with the Islamic Republic of Mauritania, at the mouth of the Senegal River. This city, whose island has been a UNESCO World Heritage Site since 2000, is exposed to multiple natural hazards (floods, coastal erosion, sea level rise, etc.). It is among the most vulnerable cities in the world to climate change.

The development of Saint-Louis is affected by difficulties that are limiting factors for its emergence, particularly in socio-economic and environmental terms. These are mainly: high population growth, progressive environmental and ecosystem degradation, lack of stormwater drainage infrastructure and obsolescence of existing ones, inadequately adapted urban planning and management framework documents whose timeframes have long since been exceeded, a waste management system that shows limits, scarce

land reserves, land use marked by the overwhelming use of irregular housing, etc.

The urban profile of Saint-Louis is very representative of that of most coastal cities in Senegal. According to a World Bank study conducted in 2015, these cities are home to 60% of the national population and contribute 68% to GDP. They are all facing increasing climate risks, planning and urban management problems.

The challenges to be addressed are therefore multiple and complex and go beyond the boundaries of the city of Saint-Louis. They should be sought through a multidisciplinary, concerted and inclusive approach with all regional actors. Taking into account the principles governing sustainable development, responses should take into account the needs of current generations without compromising those of future generations.



Coastal erosion, one of the most significant threats to neighborhoods located on the “Langue de Barbarie” (Saint-Louis).

DESCRIPTION OF THE INTERVENTION

To promote the sustainable development of the Greater Saint-Louis area, the Government of Senegal has received, within the framework of PROGEP, a second additional grant from the Global Environment Facility (GEF), through the Sustainable Cities Initiative (SCI)¹. This funding was complementary to that of the State of Senegal, the World Bank and the Nordic Development Fund (NDF) to reinforce PROGEP's sub-component A.3, concerning the "Formulation of an integrated stormwater management and climate change adaptation program". Among other things, it aimed to identify and implement adaptation measures to make Saint-Louis and the Urban Pole of Diamniadio² models of a sustainable city.

The GEF's "Sustainable Cities" approach is being implemented in Saint-Louis, in particular through (i) the preparation and reinforcement of urban planning and management documents integrating climate risks, (ii) the conduct of strategic studies on sustainable cities, (iii) the implementation of community investment projects, (iv) the strengthening of intercommunal cooperation and (v) the development of knowledge and skills for the benefit of stakeholders. These interventions were carried out in the Greater Saint-Louis area, which follows the outlines of the eponymous department and includes the municipalities of Saint-Louis, Fass Ngom, Gandon, Mpal and Ndiembène Gandiol.

In Saint-Louis, the implementation of PROGEP was strategically supervised by a Regional Steering Committee chaired by the Regional Governor and composed mainly of the Municipalities of the Saint-Louis Department, the University Gaston Berger (UGB), the Regional Division of Urban Planning and Housing (DRUH), the Regional Division of the Environment and Classified Facilities (DREEC), the Regional Development Agency (ARD), etc.

1 For more information on the initiative, please visit: <http://www.thegef.org/topics/sustainable-cities>

2 See Capitalization Brief "Diamniadio: Planning a new sustainable city"

ACHIEVEMENTS



INTERTERRITORIAL COOPERATION



Formalization of the intercommunal agreement of the Greater Saint-Louis area, through the creation of the "Association of Territorial Authorities of Saint-Louis (ACT-SL)"



Revitalization of the 204 community consultation committees



STRATEGIC STUDIES AND KNOWLEDGE CREATION



Diagnostic and strategic study on the "Sustainable City" of the Greater Saint-Louis area



Study for the design and implementation of an environmental monitoring and modelling system for the Saint-Louis coastal zone



Updated and extended Urban Master Plan (PDU) for the Greater Saint-Louis area



Integrated Territorial Information System (ITIS) for the Greater Saint-Louis area



CAPACITY BUILDING



42 training workshops on intercommunality



Allocation of equipment for environmental monitoring of the Saint-Louis coastal area



1 training course certified by the UGB, for 33 participants, on the themes "Environment, Uncertainties and Disasters in the City"



COMMUNITY PARTICIPATION IN HOUSEHOLD WASTE MANAGEMENT



16 training and awareness-raising meetings, for 574 community stakeholders, on household waste management



Launch of a Sét Sétal campaign ("Clean and make clean" in Wolof)

- **35 districts and 6 villages** affected
- **250 plants produced** for reforestation
- **5,500 units** of small cleaning equipment
- **More than 10,000 goodies made** (t-shirts, caps, polo shirts)
- **2 memorandums** of understanding signed with the Regional Hygiene Brigade (BRH) and the Regional Water and Forest Inspection (IREF) of Saint-Louis

■ RESULTING CHANGES

Design of a sustainable vision for the Greater Saint-Louis area

PROGEP has made it possible to carry out several innovative studies and decision-making tools: (i) the "Sustainable City" diagnostic report, the resulting strategy and its action plan; (ii) the study for the design and implementation of an environmental monitoring and modelling system for the Saint-Louis coastal zone; (iii) the design and installation of an integrated Territorial Information System (ITIS); and (iv) the study for the revision and extension of the Urban Master Plan (PDU). These complementary tools have made it possible, on one hand, to acquire better knowledge of the vulnerability and risks associated with climate change facing Saint-Louis and, on the other hand, to have urban planning and strategic framework documents that integrate the principles of sustainability and climate resilience at the urban level.

Better control of land use, integration of sustainability and resilience into land use planning at the territorial level

The revision of the Saint-Louis Urban Master Plan (PDU) approved in 2009 represents an important step forward, given the national difficulties in preparing this type of planning document. The participatory development and integration of climate risks into its design capitalizes on the approach successfully used by PROGEP in Pikine and Guédiawaye³. The extension of the PDU to the departemental scale, with the integration of the neighboring municipalities of Saint-Louis (Mpal, Gandon, Fass Ngom and Ndièbene Gandiole) is an opportunity, not only to take into account the risks linked to climate change in order to develop urban resilience, but also to revitalize the regional economy and to involve the private sector in financing the identified facilities. The Detailed Urban Plans (PUD) of the "Langue de Barbarie" and the municipality of Gandon, which will be carried out as part of the "Saint-Louis Emergency Recovery and Resilience Project (SERRP)", will make it possible to implement the sustainable vision formulated in the "Sustainable City" study and the departemental planning envisaged by the PDU.

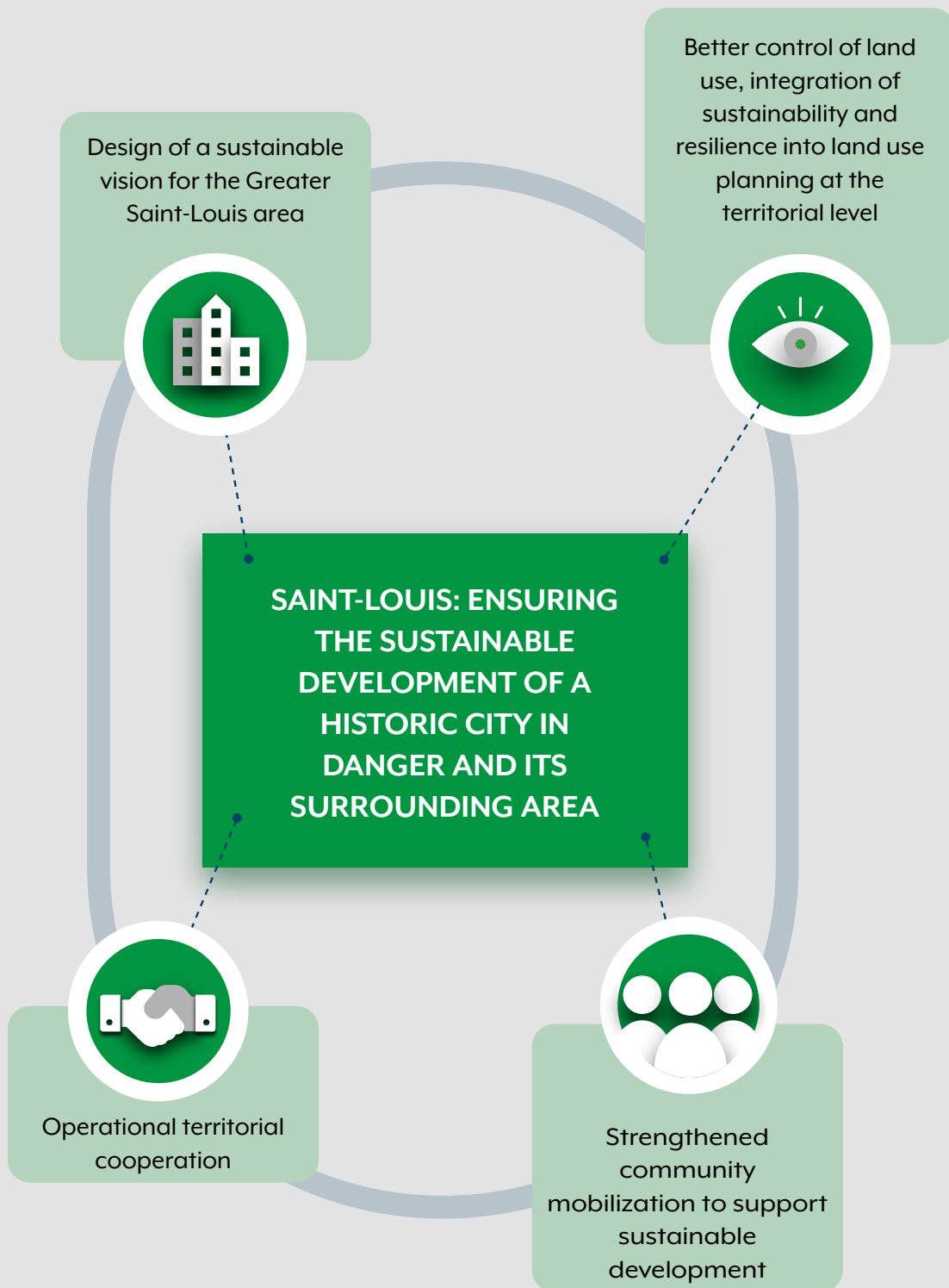
Operational territorial cooperation

The unbalanced development of the Greater Saint-Louis area required a new intercommunal and interdepartmental relationship. The formalization of territorial cooperation through the creation of the Association of Territorial Authorities of Saint-Louis (ACT-SL), to which all the municipalities of the agglomeration have unanimously agreed, has been achieved through an inclusive process involving local elected officials, administrative authorities, community actors, technical services and other technical and financial partners. It helps to reinforce local communities and citizen participation in order to create a more resilient region. The construction of this integrated territorial dynamic makes it possible to provide innovative and sustainable responses to the challenges related to climate change, governance and the concerted management of shared issues.

Strengthened community mobilization to support sustainable development

PROGEP supported the renewal and/or installation of 204 community bodies, including 172 village development committees (Gandon, Ndiébène Gandiol and Fass Ngom) and 32 neighborhood councils (Saint-Louis and Mpal). The revitalization of these consultation frameworks has had a direct positive impact on citizen participation in decision-making bodies and, consequently, on the construction of shared territorial governance. The positive impacts, beyond the democratization of access to new regional knowledge and the strengthening of the capacities of community organizations, are materialized through the increased involvement of the populations of the Greater Saint-Louis area in the implementation of projects contributing to the sustainable development of the region. The strong support and citizen mobilization for the implementation of the Community Investment Project (PIC) Cleanliness, proposed by PROGEP, is, for example, a sign of the sustainability of the dynamics instilled.

³ See Capitalization Brief "Providing territorial authorities with urban planning and management tools that integrate climate risk "





PROMOTE INTERCOMMUNAL COOPERATION TO SUPPORT THE RESILIENCE OF TERRITORIES

Chapter III of the General Code of Territorial Authorities sets out the principle of solidarity and cooperation between territorial authorities for the concerted management of matters of common interest. This form of cooperation makes it possible to share common resources, optimize the pooling of resources, combine efforts to develop and implement socio-economic, environmental and sustainable development projects, or even ensure certain services (transport, sanitation, waste management, etc.). But the practical applications of intercommunal cooperation in Senegal are rare. The implementing decrees to formalize cooperation are not yet available, and for this reason the experiment carried out in Saint-Louis by PROGEP is innovative and pilot in nature.

The support component for the implementation of intercommunal cooperation in the Saint-Louis department aimed to: (i) the construction of integrated territorial dynamics providing innovative and sustainable responses to the challenges related to climate change; (ii) the promotion of solidarity and cooperation between territorial authorities around the definition and implementation of structuring responses on shared issues; (iii) the coordination and harmonization of territorial development as well as the pooling of the resources of the regional authorities concerned, with a view to building infrastructures of common interest and whose cost could not be covered by a single authority.

The methodology applied to promote intercommunality in Saint-Louis was based on the principles of strong political leadership (local administrative and political authorities)

and community ownership through an inclusive (progressive/upward) approach. These principles made it possible to conduct an iterative process with the broad participation of the populations, particularly during the diagnosis and pre-validation phase of the results. The approach adopted facilitated the sharing of information and the development of a concerted vision of intercommunality. It was made a reality by the deliberation of the departmental council and the 5 municipal councils of the agglomeration to join the Association of Territorial Authorities of Saint-Louis (ACT-SL).

The implementation of the process can be summarized in 5 main steps:

1. Implementation of the institutional and technical mechanism
2. Restructuring and capacity building of community actors
 - a. Revitalizing consultation frameworks
 - b. Capacity building of territorial actors
3. Preparation of the framework document for intercommunal cooperation
 - a. Participatory communal diagnoses
 - b. Preparation of the framework document and pre-validation of the statutes of the future intercommunal structure
4. Formalization of intercommunal cooperation (preceded by preparatory technical meetings in the municipalities)
5. Implementation of the cooperation structure



Khalilou BA
First Deputy Mayor of Gandon



As the focal point for the implementation of intercommunality, I have actively participated in all the activities proposed by PROGEP on this initiative.

Saint-Louis is a multidimensional territory, it is at the same time a city, a department and a region. Gandon is a rural community with different concerns from the municipality of Saint-Louis. We must treat everyone's problem with equal dignity.

Within an intercommunality, we collaborate, share, exchange and bring concerted solutions to ensure sustainable development at the regional level. We avoid taking initiatives that are detrimental to the interests of one or the other.

The intercommunal PDU is a first step towards a global planning of the region. The implementation of intercommunality will make it possible to achieve the vision of this important strategic document."



FACILITATING CITIZEN INVOLVEMENT IN HOUSEHOLD WASTE MANAGEMENT

The Community Investment Projects (PICs) Cleanliness

The PIC Cleanliness, with a total cost of 500 million FCFA, was carried out in the five communes of the department of Saint-Louis: Mpal, Fass-Ngom, Gandon, Ndiébène-Gandiole and Saint-Louis. The PIC Cleanliness is an initiative to be implemented under the "Intercommunality" component implemented by PROGEP.

The populations, elected officials and technical services have identified waste management as the priority area to be addressed by the new intercommunal system in the Greater Saint-Louis area. The extent of waste pollution and the very limited resources of the municipalities to deal with it justified this unanimous choice.

PROGEP has helped to set up a new dynamic, creating a significant mobilization of commu-

nal services, communities organized around neighborhood councils and village development committees. To face the scale of the challenge, it has been proposed to intelligently share human, material and financial resources around actions that are effectively combined with territorial authorities, the administration and citizens. Public ownership of the initiative has been an important factor in promoting behavior change and the sustainability of results.

The activities were carried out around 4 main axes: (i) awareness-raising, communication and institutional capacity building; (ii) zero waste operations (eradication of litter / Sét-Sétal Campaigns); (iii) development of community green spaces; (iv) acquisition of small equipment for cleaning household waste.



The means and residents of the municipality of Mpal mobilized for an action "Sét Sétal" ('Clean and make clean' in Wolof) within the framework of PROGEP.

■ LESSONS LEARNT

Strong leadership ensures the success of the dialogue process

To facilitate innovative processes, such as those of intercommunality and the "sustainable city" vision, it is necessary to designate a "leading" institution that has the necessary credibility with all stakeholders and the human, technical and financial capacities to successfully lead the initiative. This institution must have the mandate to lead this type of activity and the ability to implement it. In the case of PROGEP, the will of the territorial authorities, the presence of the ARD, the supervision and the funds of ADM ensured that the conditions were in place to achieve the success of the process.

Intercommunality must make it possible to solve concrete problems

The adoption and implementation of a regional approach based on the formalization of intercommunality had already been carried out in Saint-Louis. Previous attempts had ended without achieving the desired result for political, procedural or technical reasons. The key factor that enabled PROGEP to build consensus among stakeholders in the five communes of the department is linked to the thematic approach that led the process. The territorial diagnosis and the subsequent exchanges made it possible to identify the concrete problems, in terms of healthiness, access, combating coastal erosion and flooding, and salinization of the land, that intercommunality could solve. Once consensus had been reached on these aspects, the desire to improve living conditions made it possible to overcome the obstacles that had previously hindered the establishment of a regional agreement.

Information sharing and dialogue facilitate the understanding and application of innovative solutions

Territorial governance involves a large number of stakeholders with different visions, objectives and working methods. In order to find a consensus among

all stakeholders, it is essential to find ways to ensure the sharing of information and the possibility of expression of each stakeholder. In the context of the PROGEP in Saint-Louis, this framework was found in the organization of an Operational Technical Committee (OTC) and a Regional Steering Committee (RSC). The first, chaired by the Prefect and the second by the Governor. This organization has made it possible to build a common vision of intercommunality and to find innovative solutions in the case of blockages. For example, for the formalization of intercommunal cooperation, the General Code of Territorial Authorities provides for forms of regional cooperation, but implementing decrees do not yet exist. Based on their shared vision, the stakeholders decided to create the "Association of Territorial Authorities of Saint-Louis (ACT-SL)" pending the adoption of the said decrees.

The mobilization of existing consultation frameworks facilitates citizen involvement

The empowerment of community actors has played an important role in the success of PROGEP's activities in Saint-Louis. It has been possible through the revitalization of existing consultation frameworks in the region. The presence of community councils in the Saint-Louis neighborhoods and the ability of the PROGEP team to revitalize it have enabled rapid progress to be made towards achieving the objectives set.

A realistic timeline supports the execution of activities

The progress of some activities has been slowed down mainly due to delays in the allocation of operating funds and the unavailability of key administrative staff during planning and validation meetings. To ensure proper implementation, it is therefore crucial to anticipate these constraints and find the necessary mechanisms to minimize their effects.



IMAGINING THE NEW SAINT-LOUIS

The PDU and the diagnostic study and the "Sustainable City" strategy

The Urban Master Plan (PDU) approved in 2009 does not take sufficient account of the new problems facing the Greater Saint-Louis area, particularly those related to climate change, water planning and land issues related to urban growth.

To solve this problem, PROGEP supported the production of a new planning document, the scope of which extends beyond the administrative boundaries of the city of Saint-Louis and includes the four neighboring municipalities.

In order to provide this strategic document with a vision shared by stakeholders and to integrate the principles of sustainability, ADM has mobilized a group of specialized international consulting firms to develop a diagnostic study and a "Sustainable City" strategy.

This study made it possible to identify the priorities to be taken into account in order to achieve prosperity, security and environmental protection and improve the quality of life of the population of Saint-Louis. It provides in-depth analysis and promotes the initiatives necessary for the sustainable management of resources (human and natural), water and waste management (solid/liquid), resilience to natural disasters, effective land use management, accessibility to the entire surrounding area and the adaptation of public transport to future needs.



Oumar SOW

President of the Darou Medina Marmiyal District Council in Saint-Louis



Through the "PIC Cleanliness", PROGEP has initiated an irreversible process based on the sustainable development requirements of our regions and on a synergy of multi-stakeholder actions stimulated by a citizen approach. One of the key factors for the success of the project was to rely on the community councils, which had existed for a long time in Saint-Louis, but which were dormant. PROGEP has been able to revitalize them through the proposal of concrete actions and the provision of contained but well-targeted financing.

In the neighborhoods of Saint-Louis and the municipalities of the agglomeration, a new wind is blowing, bringing health and hope. The technical and financial resources brought by PROGEP have given new life to the consultation frameworks, and the skills of community organizations have been strengthened. But beyond the means, it is above all the citizen dynamic that has been revived. The neighborhood councils have renewed their members, access information, organize awareness campaigns, mobilize residents in "Set walks ('cleanliness' in Wolof)". The relations with the administration have been renewed and make it possible to ensure cleanliness in the neighborhoods, through the resumption of the activities of the GIE-CETOM (Collecting and processing household waste) and the neighborhood groups in charge of supporting the municipalities to ensure the management of household waste.

The intercommunal approach to solving the waste issue within the PROGEP is essential. The communities are mobilized, they will ensure that it can become operational and participate in its success."

■ FUTURE PROSPECTS

Capitalize on the studies and knowledge generated in other ongoing interventions

The knowledge generated by the studies conducted on the region of Saint-Louis, the information collected and recorded in the Integrated Territorial Information System (ITIS) will constitute a solid knowledge base for interventions in the start-up phase. For example, the Saint-Louis Emergency Recovery and Resilience Project (SERRP), launched in 2018 by ADM and financed by the World Bank, should extend and strengthen PROGEP's results in its implementation. The SERRP aims to reduce the vulnerability of populations living along the "Langue de Barbarie" to the risks and dangers associated with coastal erosion, and will reinforce the planning of urban and coastal resilience in the city of Saint-Louis. Other programs and initiatives may follow this example.

Implement the integrated urban vision planned by the PDU and the "Sustainable City" diagnostic study

The diagnostic studies carried out as part of the revision and extension of the PDU made it possible to carry out an inventory and to have a better knowledge of the urban situation by the territorial authorities. The validation sessions of the first draft of the PDU will allow to discuss the development scenarios proposed by the group in charge of the study. As a first stage, it will be necessary to finalize the process, approve the PDU and validate the proposed Priority Investment Plan for a successful implementation of the defined measures.

Then, the consultations will be organized with the regional actors to improve their familiarity with the documents and ensure proper monitoring of their application in the region.

Managing waste through an intercommunal approach

Waste management is a crucial question. Its dysfunction aggravates the health of the Saint-Louis region and has repercussions on the environment, health and tourism, among others. This issue cannot be resolved by the individual action of a municipality. It can only find a solution if it is addressed at the regional level. Stakeholders in the emerging intercommunal sector have identified this issue as a priority. The regional approach will also facilitate the synergy of ongoing initiatives on waste management (PROMOGED, Saint-Louis/Clean City, etc.).

Finding sustainable solutions to the region's problems based on intercommunality

intercommunality will not only apply to solving waste management. This approach lays the foundations for a concerted approach to managing other issues such as: coastal erosion, mobility, improving access to rural communities, access to drinking water and electricity, etc. It is necessary to develop concrete projects on its axes of intervention to support this emerging intercommunal cooperation.



Agents of the State's technical services and the residents of Saint-Louis are carefully following a training course on intercommunality and environmental governance.



PROTECTING THE SAINT-LOUIS COASTAL ZONE

The study for the design and implementation of an environmental monitoring and modelling system

The city of Saint-Louis is located on an archipelago between the mouth of the Senegal River and the Atlantic Ocean in a unique landscape. In order to take into account this fragile and particular context and define a sustainable land use strategy for the new Urban Master Plan (PDU), PROGEP has undertaken a preliminary technical study. ADM has entrusted the mission to a group of international consulting firms to develop numerical simulation models, in particular hydro-sedimentary processes. The models will assist in the preparation of an intervention plan that, in addition to technical considerations, must also be based on social, economic, financial and environmental considerations.

The study was conducted using an institutional coordination mechanism for the agencies involved: the Regional Division of the Environment and Clas-

sified Facilities (DREEC) with the support of the Division of Water Resources Management and Planning (DGPRE/DH), the National Agency for Maritime Affairs (ANAM), the Gaston Berger University (UGB), the "Senegal River Basin Development Authority (OMVS)", the MANANTALI Energy Management Company (SOGEM), the Regional Division of Urban Planning and Housing (DRUH) and the Regional Development Agency (ARD). The study was conducted in several stages and also included a knowledge transfer program for the theoretical and practical training of Senegalese experts.

Equipment worth approximately 184,000,000 FCFA was acquired and transferred to provide the Senegalese authorities with flexible, easy-to-use systems for future measurements of bathymetry, waves, currents, flows, salinity.



Ousmane SOW

Director of the Regional Development Agency (ARD) of Saint-Louis



The Sustainable Cities Initiative supported under PROGEP has allowed territorial authorities in the Greater Saint-Louis area to become aware of the issues related to climate change that affect the region. But above all, it has the great merit of having proposed knowledge and practical solutions so that communities can commit to working in synergy and collaboration with communities to provide the sustainable solutions that Saint-Louis needs.

The success factor has been the ability to capitalize on past mistakes and base consultation on concrete discussion themes such as health, access, the fight against coastal erosion and flooding,

and land salinization. The communities of the urban area are paying a high price for the lack of responses to these challenges. They are well aware of these issues that weigh on the territory and prevent sustainable development.

ARD has supported all the stakeholders so that everyone can play their part and contribute to the solution of these common problems. The intercommunal approach provides a common framework for tackling problems together.

Communities, in particular, have shown great enthusiasm to contribute to waste management by mobilizing around the PIC Cleanliness."



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Stormwater Management and Climate Change Adaptation Project (PROGEP)

The Stormwater Management and Climate Change Adaptation Project, PROGEP, implemented by the Municipal Development Agency (ADM), is a component of the Ten-year Flood Control Plan (PDLI). It is funded by the Government of Senegal, with technical and financial support from the World Bank, the Global Environment Fund (GEF) and the Nordic Development Fund for a total of USD 121.3 million (FCFA 60.65 billion).

This urban development project implemented over seven years (2012-2019) was aimed at reducing flood risks in Dakar's peri-urban area (Pikine and Guediawaye) and at promoting sustainable city management practices in selected urban areas (Saint-Louis and Diamniadio). It sought to find sustainable solutions using an integrated approach based on a combination of infrastructural and non-infrastructural interventions.

The Municipal Development Agency (ADM)

ADM, the agency responsible for coordinating the implementation of the Stormwater Management and Climate Change Adaptation Project (PROGEP), was established in 1997 thanks to combined efforts of the Government and the Mayors Association of Senegal, AMS. The agency was established in the context of 1996 reforms, referred to as the "regionalization" reforms, aimed at reinforcing decentralization and local development in Senegal. As a key partner to local

authorities, and in accordance with its Strategic Plan, ADM works to make local regions more attractive and competitive and to strengthen their governance. To this end, the agency contributes to building strategic, financial, administrative and technical capacities of local authorities. ADM helps authorities manage territorial information, facilitates cooperation between local authorities, and promotes inter-communality.

This publication is part of a series of briefs that capitalize the achievements of and lessons learned from the implementation of the PROGEP project. This capitalization brief, as well as the publications cited, can be accessed at: www.adm.sn/progep