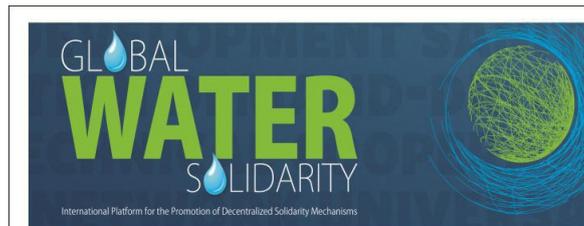


REPUBLIC OF SENEGAL



City of Dakar  
Direction of Urban Development

---



# **1% Dakar Solidarity Project Presentation**

## WASTEWATER TREATMENT OF GRAND YOFF DISTRICT



November 2012



## PROJECT SHEET



Project title	1% Dakar project : Wastewater treatment in some districts of Grand Yoff
Global objective of the project	Improve the quality of life of the poorest populations
Principal objective	Define the feasibility of a solidarity mechanism allowing access to sanitation to poor populations of the city of Dakar.
Specific objectives of the project:	<p>The specific objectives of the project are :</p> <ul style="list-style-type: none"> <li>a. Identify the actors of the distribution of water and sanitation for the city of Dakar (public and private) as well as the relationships linking those actors to the existing synergies or to be developed.</li> <li>b. Assess existing potentialities and similar initiatives (municipal tax of Sénégalaise des eaux SDE) in terms of solidarity between users at the level of the city of Dakar and according to a national dimension able to facilitate the provision of water and sanitation services to disadvantaged populations;</li> <li>c. Identify the beneficiaries of solidarity mechanisms.</li> <li>d. Prospect in mobilization mechanisms and management of identified sources and implementation of the initiative centered around the municipal leadership.</li> <li>e. Mapping possible users who need to benefit from present opportunities and determine the types of services to be provided according to each category.</li> <li>f. Create a common referential to decentralized solidarity processes in order to transpose this experience to other cities in Africa.</li> <li>g. Identify the types of existing opportunities at the level of the Northern countries regarding funding of such initiatives and ways to seize them.</li> </ul>
targeted population	788 homes of Grand Yoff (Dakar)
Estimated amount of the project (Works and Engineering):	594 107 692 FCFA or 9050651 Euros
Financing	Wanted: 50% local, 50% international
Consistency of the global project:	<ul style="list-style-type: none"> <li>- feasibility study</li> <li>- project costing</li> <li>- definitions of funding strategies</li> <li>- determination of technical solutions</li> <li>- works <ul style="list-style-type: none"> <li>o 1st type of action: case by case homes study</li> <li>o 2nd type of action: request for proposal</li> <li>o 3rd type of action: Works</li> </ul> </li> <li>- control and supervision of works</li> <li>- reception of works</li> </ul>
Estimated time	6 to 12 months
Principal Beneficiary	City of Dakar
Executing agency	National Office for Sanitation of Senegal (ONAS)

## Summary

### Introduction

I. CONTEXT AND JUSTIFICATION OF THE PROJECT

II. ADOPTED STRATEGIES

III. METHODOLOGY FOR EFFECTIVE IMPLEMENTATION OF THE PROJECT AFTER

AFRICITES

IV. ESTIMATION OF THE PROJECT COSTS

V. EXECUTION PARTNERS

VI. CONSISTENCY OF THE PROJECT

VII. CONDITIONS OF IMPLEMENTATION

CONCLUSIONS

APPENDICE

## INTRODUCTION:

This present document is established to return feasibility studies of the solidarity project named 1% Dakar and identify future actions. This project aims, based on the principle of solidarity, to allow populations of certain districts of the municipality of Grand Yoff, access to a basic sanitation. This will contribute significantly to improve their living conditions and health. This project falls within the more general framework of decentralized solidarity mechanisms relying on a South-South type cooperation eventually supplemented by north-south partnerships.

After a few months of work, the feasibility of such a mechanism has been clearly established. More work will still be conducted to convince elected common benefactors to contribute to this project and thus participate in the financing. All technical data and figures are presented here well as the framework that justifies such an initiative and operating methods selected.

The City of Dakar, ONAS and EEA with the support of Global Water Solidarity are committed to all implement to achieve the objectives.



## I. CONTEXT AND JUSTIFICATION OF THE PROJECT:

### I.1 General information on the city and the population

The city of Dakar is located in the extreme west of Senegal on the Atlantic coast. It is the capital of the Republic of Senegal. It counts nineteen district municipalities. Occupying only 0.28% of the national territory, the Dakar agglomeration comprises 25% of the population and concentrates 80% of the economic activities in the country. The city has 3,215,255 (2011) inhabitants and an area of 550 km<sup>2</sup> and its increasing congestion constitute a major challenge for transportation, sanitation, development and the environment. The Mayor of the City is Khalifa Ababacar Sall whose mandate runs until 2014.

The district municipality of Grand Yoff where the project is located has 144 859 inhabitants. The agglomeration of Grand Yoff was created around the years 1965 as a result of successive evictions of the floating districts of the city of Dakar and its suburbs. The populating was made, in the manner of traditional villages in successive waves, without previous planning and without viabilization even primary for roads and other networks.

In 1996 with the advent of the law on decentralization, this very old set of districts was erected in decentralized Community, becoming today the District municipality of Grand Yoff.

The figure below groups together the different district municipalities of the city of Dakar

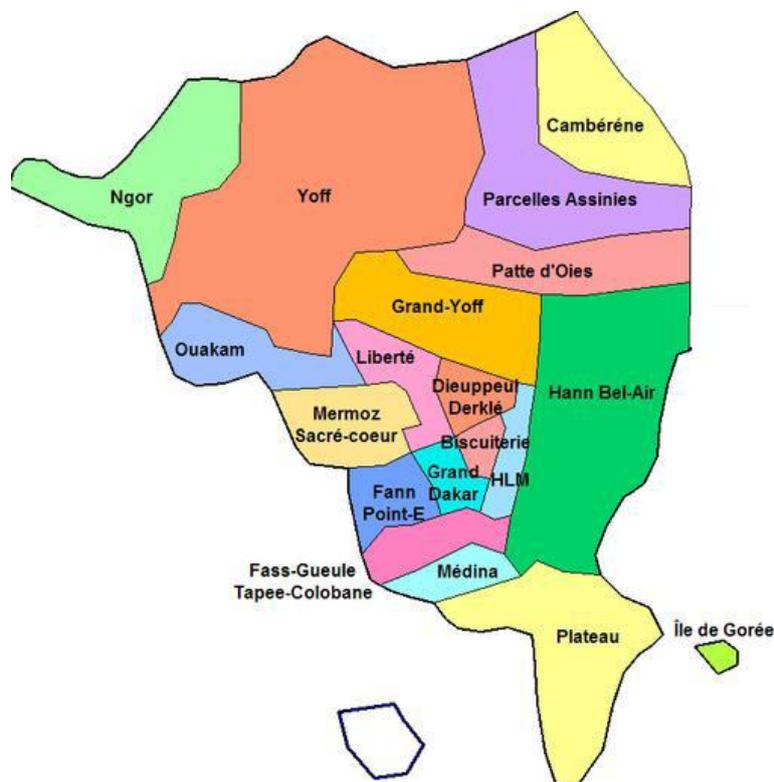


Figure 1: Communities of Dakar

### **I.2 Current situation:**

The sewerage network is present in most neighborhoods of Grand Yoff. But given the level of earthworks of many houses that can not technically be connected to the network an important part of the population find themselves disconnected from the sanitation system of ONAS. The majority of these homes are located in the following neighborhoods:

- Jiddah 1&2
- Missirah
- Fass
- Santiaba

The populations of these neighborhoods, mostly living below the poverty line, try by their own means and solutions to evacuate their wastewater but it is done in very precarious sanitary conditions. Those who use septic systems are often confronted with the difficulty of draining that is very expensive. It is estimated on average that the number of tours is about two (02) per month at a cost of 25000FCFA per round! Very difficult situation for those families. The project proposes to relieve their daily lives.

### **I.3 Justification of the project:**

The Millennium Development Goals, in their article (7C) on access to safe water and basic sanitation, have promulgated the goal of halving by 2015 the proportion of the population without access to safe drinking water and basic sanitation in a sustainable way. Despite efforts undertaken, this MDG target will not be reached in time despite increases in funding this decade, current levels of assistance in the field of water and sanitation services (USD 6.2 billion 'bilateral and multilateral aid, 16% Public assistance Development<sup>1</sup>) are clearly insufficient to achieve the MDG target, and go further away from the universal realization of the right to water and sanitation.

Despite the important efforts that have been undertaken in the area of access to safe drinking water and basic sanitation, progress obtained do not reach the level considered to be acceptable, on the contrary, the perspectives are deteriorating in certain zones and areas.

In the area of sanitation, the progress recorded would not even allow to reach the minimum levels set by the Millennium Development Goals (MDGs), which were "halving the proportion of the population that has not sustainable access to safe drinking water".

However, recent resolutions as well as different calls at the international level , stressing the importance and the status of the issue of access to water and sanitation open today important possibilities allowing the strengthening of international mobilization dynamics to achieve universal access to safe drinking water and sanitation access.

Faced with these inadequate performances in the sector of water and sanitation, especially in terms of meeting the needs of the poorest, new and innovative initiatives have emerged to increase funding in this sector.

This is the case of the Global Water Solidarity initiative which is not only based on a "north-south" unilateral logic but also needs to be come down into "south-south" axis.

For this reason, the platform proposed that African cities, implement such mechanisms to respond to the objectives of improving access to water and basic sanitation. If solidarity must express itself and accompanied much more important investments in Northern countries in favor of those of the South, the fact remains that it must also be expressed in an infra-state way, between local communities and / or categories of users.

#### **I.4 beneficiary populations:**

The planned beneficiaries will be all the populations of the districts identified as requiring coverage of the problem of sanitation, and all persons visiting the city (tourists, traders ...). These neighborhoods are five in number: Santiaba, Jiddah 1 & 2, Fass and Missirah.



#### **I.5 Current situation of the sector of water and sanitation in Senegal**

The area of water and sanitation in Senegal, particularly in Dakar, is experiencing serious difficulties in terms of production, access, distribution, quality, and profitability. Access to sanitation of the populations are competencies centralized at state institutions level in Senegal unlike certain Northern countries where local authorities conduct themselves even this sector.

The National Office for Sanitation of Senegal (ONAS), is a semi-public facility in charge of sanitation works as well as maintenance and operation of the works.

But faced with difficulties and persistent inadequacies in the sanitation sector, in particular the lack of access of many populations of some of its district municipalities, the City of Dakar under the impulse of its Mayor has always engaged in various solidarity actions to enable these disadvantaged populations to benefit from access to sanitation in partnership with government departments in charge of this sector. This concerns for example sanitation projects independent and semi independent in outlying districts. But also supporting projects for social connection in neighborhoods such as Wakam (traditional district of the city).

It is on this momentum that the city has initiated the project Dakar 1%, under the pulse of GWS, aimed to promote solidarity between the municipalities of the City. This mechanism of solidarity is based on Decentralized Solidarity Mechanisms Solidarity (DSM). It comes for some municipalities to withdraw 1% of the water charges paid by SDE and contribute to funding projects addressing to the work of connection to the public sewerage networks or the realization of independent or semi-independent sewerage networks. The Mayor of the City and all of its employees has joined this project to its successful outcome.

## **II. ADOPTED STRATEGIES AND ESTIMATION OF THE TOTAL COST OF THE PROJECT**

### **II.1 The global objective:**

The overall objective of the project is to significantly improve the quality of life of people in the town of Grand Yoff.

### **II.2 The main objective:**

Define the feasibility of implementing a decentralized solidarity mechanism on the scale of the city of Dakar for access to sanitation of the poorest populations.

### **II.3 Specific objectives:**

The specific objectives of the project are:

- a. Identify the actors of the distribution of water and sanitation for the city of Dakar (public and private) as well as the relationships linking those actors to the existing synergies or to be developed.
- b. Assess the existing potentialities and similar initiatives (municipal tax of Sénégalaise des eaux SDE) in terms of solidarity between users at the level of the city of Dakar and according to a national dimension able to facilitate the provision of water and sanitation services to disadvantaged populations
- c. Identify the beneficiaries of solidarity mechanisms
- d. Prospect in mobilization mechanisms and management of identified sources and implementation of the initiative centered on the municipal leadership.

- e. Mapping possible users who need to benefit from present opportunities and determine the types of services to be provided according to each category
- f. Create a common referential to solidarity processes in order to transpose this experience to other cities in Africa. Identify the types of existing opportunities and at the level of the in Northern countries regarding funding of such initiatives and the ways to seize them.

#### **II.4 The expected results:**

The project will allow to obtain the following results :

- The construction of independent works (septic tanks) and semi-independent (elevation of toilets and showers) in households of the district municipality of Grand Yoff.
- The construction of collective recuperation tanks connected to the networks of ONAS;

#### **II.5 impacts:**

The project will have a real impact on the environment as well as on the populations. Indeed, the wastewater collection will greatly improve the sanitary conditions of the populations. It will also make "livable" their daily environment, have a positive impact on their finances saving significant sums in draining and finally allow to calm any tension caused by access to sanitation problems especially in populated home. Similarly, the water-borne diseases will be eliminated thanks to the works that will be made. Finally, this project will contribute to the fight against poverty through the improvement of urban services and the significant increase in the productivity of social socio economic development activities in the municipality.

#### **II.6 Driving strategies of the project**

For the conduct of the project and after the visit of SIGE a project team was formed with a coordinator. The different present structures are the City of Dakar (main beneficiary of the initiative) the Intergovernmental Panafrican Agency for Water and Sanitation for Africa (EAA):

Partner and privileged consultant in the design and implementation of the project. This team is responsible in collaboration with ONAS, the state institution in charge of the sanitation sector to carry out all phases of the project. Focused initially on access to water and sanitation, it was finally chosen to focus only on sanitation in the first instance at the expense of access to water. Indeed, this question is less deficient in the City of Dakar (98% coverage according the SDE) than sanitation which has a coverage rate of 68% according to figures from ONAS.

## II.7 Financing Strategies

Decentralized solidarity mechanisms are the basis on which the project will have to rely for funding. Indeed, these mechanisms advocated implementing a south-south cooperation. In the context of the feasibility study of the project 1% Dakar, it was agreed to form partnerships between municipalities of the City of Dakar. These partnerships are based on the following principle:

A municipality participates to the financing of remediation work of another municipality through solidarity. It comes for the solidary municipality to collect 1% of the revenue from water paid out by the SDE to cover at least a part of the work.

The populations, for further involvement in the project, might contribute up to 20% of the unit cost of the structure for every home.

A Participation of the City of Dakar will become effective at the execution of the project. The district municipality of Grand Yoff was considered a priority target (according ONAS) and district community of Hann Bel Air and Plateau might eventually form the beneficiaries' municipalities.

The selection criterion for works to be executed in the context of south-south section will be the proximity of the houses of the ONAS network. Thus all the houses located close to this network will be able to be part of this section whose proportion will be determined in a subsequent study.

Another section not to be neglected is the north-south partnerships that will always in complement to those of southern. So these two aspects of partnership namely south-south and north-south will be able to complete each other in the interest of the people and for the local development of our communities.

It is important to note that face to a low level of municipal taxes compared to the cost of the project, other funding sources will be solicited. This will involve relying on large consuming water companies, hotels and people of good will in order to meet at least 50% of the funds needed. This work is currently underway. GWS is committed to helping the project to meet the remaining 50%.

## **II.8 Technical Solutions**

After a visit to the selected districts on the basis of socio-economic surveys of the town hall of Grand Yoff, after consultation with the 13 populations concerned by difficulties and the recommendations of experts agents in sanitation, three technical solutions have been identified as being implemented in five districts that are Jiddah 1 & 2 Santiaba, Missirah and Fass. These solutions are:

- Construction of elevated toilets to be connected to the ONAS network
- Construction of septic tanks
- Construction of public evacuation tanks that will be then connected to the network.

During the implementation, the solutions will be adapted to the configuration of each beneficiary home. These are all uncomplicated ideas for implementation.

### **III. Methodology for effective implementation of the project after Africités:**

After the phases of funding research the next milestones will be:

- A detailed technical study of the project case by case of the houses
- Establishment of a technical document of achievement
- Request For Proposals by ONAS
- Selection of companies for the works
- Carrying out the works
- Supervision and control of ONAS
- Receiving of the structures

### **IV. Estimated cost of the project:**

According to surveys conducted by the town hall of Grand Yoff during the last floods, 788 houses were identified as technically unable to be connected to the sewerage system of ONAS of the fact that level of these houses was lower than the ONAS network . So they are all facing a sanitation problem and it is a problem that is only observed in Grand Yoff among all the municipalities of the City of Dakar. Distribution of 788 houses:

**Tableau 1: Number of houses per district**

Jiddah 1	118 houses
Jiddah 2	133 houses
Fass	186 houses

Santiaba	137 houses
Missirah	214 houses
Total	788 houses

An estimation of the works costs made by ONAS of different solutions per house as following

**Table 2: Unitary cost of the technical solutions adopted**

Solutions	Unitary Cost FCFA
Construction of elevated toilets	583000 (889 euros)
Public drains	200000 (305 euros)
Septic tanks	530000 (808 euros)

It is clear that all these 788 houses will not have the same type of structure. Moreover, the number of drains could be three to four by districts which might make a total of 15 to 20 collective hoppers.

However looking ahead to the most likely case where the majority of the houses will be equipped with raised toilet we can estimate the total cost of the project taking into account the costs of supervision and control and of IEC as follows:

The works represent 78% of total cost and 22% the cost of supervision and IEC.

**Table 3: Global costs of the project**

Solutions	Works costs only	Total costs (supervision, control and IEC included) TVA less
Construction of elevated toilets for 788 houses	459 404 000 FCFA (583000*788) or 78% of the total amount	588 979 487 FCFA or 897 835 euros
Public drains (20)	4 000 000 FCFA (200000*20) or 78% of the total amount	5 128 205 FCFA or 7818 euros
Total	463 404 000 FCFA	594 107 692 FCFA or 905651 euros

Execution partners:

In the execution stage, the project team and the City of Dakar will be accompanied by ONAS, the semipublic organization in charge of sanitation in Senegal In this context a partnership convention is made between this structure and the Mayor of Dakar. ONAS played and continue to play a leading role in the next phases of the project.

Already at the beginning, the feasibility study advised the team in the selection of the town of Grand Yoff and target areas. Then she brought her expertise in identifying solutions and cost estimation.

ONAS will be responsible in the future to tailor each solution to each target house and launch the Request for Proposals and will be responsible for the supervision and control of all the work. The work will be carried out by private companies selected according to defined rules.

In addition, Global Water Solidarity is a platform regrouping many organizations and will act as an international link of the project. This consists in:

- research assistance of partners
- research assistance of international solidarity financing type 1%
- Promotion of the project Dakar 1% at the international level
- Linking with other local authorities or operators interested in this type of mechanism,
- Mobilization of its international network ...

#### **Consistency of the project :**

Activities to be carried for the realization of the project will be articulated around the following axis:

- FEASIBILITY STUDY
- PROJECT COSTING
- DEFINITIONS OF FINANCING STRATEGIES
- DETERMINATION OF TECHNICAL SOLUTIONS
- WORK
  - 1st type of action: study case by case of homes
  - 2nd type of action: Request For Proposals
  - 3rd type of action: Works
- CONTROL AND SUPERVISION OF WORKS
- RECEPTION OF WORKS

## **VII. Modalities of implementation**

The National Office of Sanitation (ONAS) will assume responsibility for the implementation of the project. To do this, ONAS will designate a coordinator among the engineers of the Department of Studies and Works for the conduct of the project that will be provided in relation to other actors that are:

- The Community district of Grand-Yoff;
- The city of Dakar (Department of Urban Development)
- EEA

Studies and work will be conducted in full coordination with the relevant institutions in order to create the conditions for a fruitful synergy during the interventions.

### **VII.1 Acquisitions and Management Capacity**

The acquisitions will be following the procedures outlined in the Code of Senegalese procurement promulgated by Decree No. 2007-545 of 25 April 2007. Furthermore, the sanitation sub-sector as currently organized is able to support the design and realization of sanitation facilities planned. Indeed, ONAS has accumulated extensive experience in managing large projects through the Water Sector Project (1996-2002) and the Long Term Water Project (2002-2009).

### **VII.2 Modalities for fund management and expenses**

The City of Dakar will open a special account in a Senegalese bank only dedicated to receive the funds of the Lessor. This account will be provided, according to the requests for funding advance that ONAS will address to the City of Dakar with all the necessary supporting documents. The account will be closed at the end of the project, and any remaining funds will be returned to the Lessor.

In addition, an accounting and financial implementation manual will be developed for the management of the operating expenses and for the expenses related to service provision (works and engineering) which the disbursement methods will also be specified in the agreement with the service provider.

### **VII.3 Accounting and Audit**

The project accounting will be maintained by the particular Chief Accountant (ACP) of the City of Dakar, which is responsible for all accounting aspects for the City. The latter in particular will check the conformity of the invoices with the agreement, the availability of

funds for the settlement and proceed with the expenses liquidation. The City of Dakar will recruit a firm for the financial audit of the project at the end of each year. Audit reports will be forwarded to the Landlord.

#### **VII.4 Monitoring, Evaluation and Reporting**

ONAS and the City of Dakar will make a quarterly report of the state of progress of the studies, work, disbursements and account status. This report will among other include the State of progress of the acquisitions, the State of progress of the physical and financial execution of the project and recommendations.

Global Water Solidarity could also operate during this phase by providing experience in the area.

Moreover, at the end of the project, ONAS will transmit to the City and Global Water Solidarity within a month, a completion report which includes the following points:

- Summary of the objectives of the project
- The achieved results
- The difficulties encountered;
- Lessons learned

#### **Conclusion:**

During all the feasibility study, all actors involved in the sector have been consulted and have thus provided important information and their advice have contributed to a better strategic direction.

Given the conditions of life more or less difficult and precarious of the concerned populations, it is urgent to mobilize all necessary resources to carry out the work for the good of the people

For this it is important to combine different funding strategies even if emphasis will be placed on the south-south solidarity through the twinning of municipalities of the City of Dakar. Thus North-South partnerships could be enrolled to be part in financing the project.

Annexes: Pictures taken during the site visit



