

Country Name	<b>Project for Treatment of Sewage, Rainwater and Wastes in Kaolack City</b>
Republic of Senegal	

**I. Project Outline**

Background	Kaolack city is one of the major cities in Senegal with a population of about 270,000 in 2012. However, sewage, rainwater and solid waste were not treated properly, resulting in its poor sanitary and environmental conditions. In addition, its Master Plan on hygienic environment had never been updated since its formulation in 1979. In order to improve the sanitary and environmental conditions overall, revision of the Master Plan was urgently necessary. Regarding solid waste management (SWM), deterioration of equipment was so serious that the collection rate remained at 25% in 2007. Kaolack city formulated a Master Plan for SWM with the technical assistance from the National Agency for Public Cleaning of Senegal (Agence Nationale pour Propreté du Sénégal: APROSEN) in 2008. However, this Master Plan was not implemented due to financial constraints.				
Objectives of the Project	<ol style="list-style-type: none"> <li>Expected Goals through the proposed plan<sup>1</sup>: (1) waste water treatment ratio in Kaolack city will improve, (2) flood area in Kaolack city will decrease, (3) solid waste collection ratio in Kaolack city will increase.</li> <li>Expected utilization of the proposed plan: Projects planned in the Master Plan and studied in the Feasibility Study will be implemented.</li> </ol>				
Activities of the Project	<ol style="list-style-type: none"> <li>Project Site: the entire area of Kaolack city, Senegal.</li> <li>Main Activities: (1) review of the existing plans and current conditions of sewerage, stormwater drainage and solid waste management in Kaolack city, (2) compilation of the Master Plan of sewerage, stormwater drainage and solid waste management in Kaolack city, (3) conduct of a Feasibility Study for highly prioritized projects, (4) transfer of relevant skills and technologies to personnel concerned in Senegal in the course of the project.</li> <li>Inputs (to carry out above activities) <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <b>Japanese Side</b>  (1) Mission members: 11 persons  (2) Trainees Received: 7 persons  (3) Equipment: none </td> <td style="width: 50%; vertical-align: top;"> <b>Senegalese Side</b>  (1) Staff Allocated: 10 persons  (2) Operation cost: cost for electricity and telephone bill of Japanese experts' office, travelling cost for Senegalese counterparts, etc.  (3) Land and Facilities: Japanese experts' office </td> </tr> </table> </li> </ol>			<b>Japanese Side</b> (1) Mission members: 11 persons (2) Trainees Received: 7 persons (3) Equipment: none	<b>Senegalese Side</b> (1) Staff Allocated: 10 persons (2) Operation cost: cost for electricity and telephone bill of Japanese experts' office, travelling cost for Senegalese counterparts, etc. (3) Land and Facilities: Japanese experts' office
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Project Period	Nov. 2011 - Oct. 2013 (24 months)	Project Cost	(ex-ante) 320 million yen, (actual) 297 million yen		
Implementing Agency	National Office of Sanitation of Senegal (Office National d' Assainissement du Sénégal: ONAS)				
Cooperation Agency in Japan	CTI Engineering International Co., Ltd., Earth and Human Corporation				

**II. Result of the Evaluation**

1 Relevance
<p>&lt;Consistency with the Development Policy of Senegal at the Time of Ex-Ante Evaluation and Project Completion&gt;</p> <p>The project was consistent with the development policies of Senegal stated in the "Environment and Natural Resources Sector Policy Letter (LPSEPN)" (2009-2011) at the time of ex-ante evaluation and the "Senegal Emerging Plan (PSE)" (2014-2035) at the time of project completion, which aimed at sustainable sanitation for the people by realizing sound management of the environment and natural resources.</p> <p>&lt;Consistency with the Development Needs of Senegal at the Time of Ex-Ante Evaluation and Project Completion &gt;</p> <p>Following the Master Plan formulated in 1979, a sewage treatment plant, a sewer network, and a primary drainage canal network have been constructed in 1980's, but they covered only the central part of the city. Regarding SWM, while there were three transfer stations and one final disposal site in the city, all of them were open dumping without any heavy machines for land-leveling nor truck scales. In order to improve this situation, the city was in need of a comprehensive hygienic environment development plan or an updated Master Plan. Therefore, the project was consistent with the development needs of Senegal at the time of ex-ante evaluation and the project completion.</p> <p>&lt;Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation&gt;</p> <p>The project was consistent with Japan's ODA policy for Senegal since the "Country Assistance Program for the Republic of Senegal" (April 2009) prioritized the assistance to "promote the improvement of basic living standards in collaboration with the health sector."</p> <p>&lt;Evaluation Result&gt;</p> <p>In light of the above, the relevance of the project is high.</p>
2 Effectiveness/Impact
<p>&lt;Status of Achievement for the Objectives at the time of Project Completion&gt;</p> <p>The objectives of the project were achieved by the time of project completion. The existing plans and social, economic, institutional and managerial situations of public services in Kaolack city were reviewed (Output 1), and based on the review the Kaolack city's Master Plan has been compiled under the category of Sewerage/ Sanitation System Improvement Plan, Stormwater Drainage Management Plan, and Solid Waste Management Plan (Output 2). Feasibility studies were conducted, and prioritized projects were planned (Output 3). According</p>

<sup>1</sup> The degree of achievement of expected goals is not to be assessed in principle at the time of ex-post evaluation, since it is defined as the medium-to-long-term goals which will be attained as a result of crystallizing the proposed plan ("output" of the project).

to the interviews with the staff of ONAS Kaolack, relevant skills and technologies were transferred to them through the on-the-job training (OJT) in Senegal and training in Japan<sup>2</sup> (Output 4).

< Utilization Status of the Proposed Plan at the time of Ex-post Evaluation >

The Master Plan prepared by the project was approved by the Ministry of Hydraulics and Sanitation (MHS) in January 2014. Prior to the approval, a workshop to confirm the contents of its plan was held in Dakar, the capital of Senegal, inviting concerned stakeholders of governmental and non-governmental organizations. ONAS refers to the Master Plan for selecting project approaches and alternatives. However, none of the projects studied in the Feasibility Study have been implemented due to insufficient funds. The World Bank and the West African Development Bank (BOAD) have started sanitation related projects in Kaolack city in 2017, and they referred to the Mater Plan prepared by the project in their planning surveys.

<Status of Achievement for Expected Goals through the Proposed Plan at the time of Ex-post Evaluation >

Improvement of waste water treatment ratio, flood area and solid waste collection ratio through the implementation of the projects proposed by the Master Plan and the Feasibility Study were not verified because any project planned in the Master Plan have not been implemented yet.

<Other Impacts at the time of Ex-post Evaluation >

According to the interviews with officials of ONAS, since a participatory approach was taken in the field surveys in the project, community members were involved and their awareness of sanitation especially on waste management has been raised. And the city officials' ownership of the Master Plan is high because of this participatory approach involving the Kaolack city officials. No negative impact on natural environment has been observed.

<Evaluation Result >

In light of the above, the objectives of the project were achieved at the time of project completion. However, the proposed plans were not implemented. Some positive impacts caused by the participatory approach taken by the project can be observed. Therefore, the effectiveness/impact of the project is fair.

Status of Achievement of Utilization Status of the Proposed Plan and Expected Goals through the Proposed Plan

Aim	Indicators	Results
Utilization Status of the Proposed Plan	Projects planned in the Master Plan and studied by the Feasibility Study will be implemented.	(Ex-post Evaluation) Not achieved Projects planned in the Master Plan and studied by the Feasibility Study have not been implemented yet due to the insufficient funds.
Expected Goals through the Proposed Plan	(1) Waste water treatment ratio in Kaolack city will improve.	(Ex-post Evaluation) Not verified Because no projects proposed by the project have been implemented, changes on the waste water treatment ratio in Kaolack city cannot be verified.
	(2) Flood area in Kaolack city will decrease.	(Ex-post Evaluation) Not verified. Because no projects proposed by the project have been implemented, changes on the flood area in Kaolack city cannot be verified.
	(3) Solid waste collection ratio in Kaolack city will increase.	(Ex-post Evaluation) Not verified. Because no projects proposed by the project have been implemented, changes on the solid waste collection ratio in Kaolack city cannot be verified.

Source: Final Report Vol.1 (2014), questionnaire to and interviews with the staff of ONAS and Kaolack city (2017)

3 Efficiency

Although the project cost was within the plan (the ratio against the plan: 93%), the project period exceeded the plan (the ratio against the plan: 112%). Therefore, efficiency of the project is fair.

4 Sustainability

<Policy Aspect >

The "Priority Actions Plan 2014-2018" which operationalizes the PSE for five year period of 2014-2018 allocates 26% of its fund for sustainable development, along with human capital and social protection, including safe drinking water and sanitation as well as living environment conditions. As for the environment sector, LPSERN has been updated to LPSERN 2016-2018 keeping its policy for realizing sanitary environment of the people through sound management of environment. Therefore, the project effects are expected to be sustainable from the perspective of policy aspect.

<Institutional Aspect >

While human resource constraints were cited in the Master Plan prepared by the project as a major issue of ONAS Kaolack, the situation has not been changed since then. There is only one technician in ONAS Kaolack at the time of the ex-post evaluation in 2017, who can support implementation of the projects. Other technical staff members are operation and maintenance staff for sanitation facilities, who don't have knowledge and experience of project planning and implementation.

<Technical Aspect >

According to the interviews with officials of ONAS Headquarters, technical level of ONAS staff is sufficiently high to implement the projects proposed by the Master Plan. While technical level of ONAS has been high, it has been further improved through the off-the-job and on-the-job training provided by the project. However, out of five staff members trained by the project, three of them have been transferred or turned over.

<Financial Aspect >

Financial constraints were also reported in the Master Plan as a major issue not only at ONAS Kaolack but also at Headquarters. The Master Plan stated that "against budgetary constraints, there might be no rapid effective solution except for the central government to increase its subsidies to the local governments and the government-affiliated organizations" (Final Report Volume I: Summary, March 2014, p.123). However, the central government's subsidies have not been sufficiently increased to implement the projects proposed by the

<sup>2</sup> A total of seven engineers and technicians of ONAS, the Kaolack City, and some other ministries participated eight days training program in Japan. The participants learned about urban environmental management in Japan through lectures, on-site visits, and discussion with Japanese experts from the public and private sectors.

Master Plan.

<Evaluation Result>

In light of the above, some problems have been observed in terms of the institutional, technical and financial aspects of the implementing agency. Therefore, the sustainability of the effectiveness through the project is fair.

#### 5 Summary of the Evaluation

The objectives of the project were achieved by the time of project completion by submitting the Master Plan including the Feasibility Study. However, while the Master Plan was approved by MHS, none of the projects proposed have been implemented due to insufficient funds. As for sustainability, limited human resources and funds constrained implementation of the projects proposed. As for efficiency, the project period exceeded the plan.

Considering all of the above points, this project is evaluated to be partially satisfactory.

### III. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

- Since some international organizations have shown their interests in some projects studied in the project, it is recommended MHS and Kaolack city to take a further step to have the discussion with those and other active donors for financing the implementation of the projects.

Lessons Learned for JICA:

- None of the projects proposed in the Master Plan prepared by the project have been implemented due to financial constraints of the Government. Funding could be a critical factor in project implementation for most developing countries. If specific financing strategies could be included in a Master Plan, it might increase the possibility of implementation of projects.