## Summary of Evaluation

<table>
<thead>
<tr>
<th>1. Outline of Project</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country:</strong> Republic of Senegal</td>
<td><strong>Project Title:</strong> Project on the Safe Water and Support on Community Activities Phase 2</td>
</tr>
<tr>
<td><strong>Issue/Sector:</strong> Water and sanitation</td>
<td><strong>Cooperation Scheme:</strong> Technical Cooperation Project</td>
</tr>
<tr>
<td><strong>Division in charge:</strong> JICA Senegal Office</td>
<td><strong>Total Cost (as of the time of evaluation):</strong> Approx 567 millions of Yens.</td>
</tr>
<tr>
<td><strong>Period of the Cooperation:</strong> November 17, 2006-March 31, 2010</td>
<td><strong>Partner Country’s Implementing Agency:</strong> Ministry of Urbanization, Habitat, Construction, Water, Ministry of Health and Prevention, Ministry of Agriculture, Fisheries, and Biofuel, Ministry of Livestock</td>
</tr>
</tbody>
</table>

### 1-1 Overview and background of cooperation

In Senegal, whereas the access rate to drinking water is 78% (2002) in urban areas, more than 40% of rural population still does not have access to drinking water. The project called the Safe Water and Support on Community Activities Phase 1 had been implemented from 2003 to 2006. The Project supported the establishment of model for the sustainable use of drinking water supply by Water User’s Association (ASUFOR) in the region of Tambacounda.

Project on the Safe Water and Support on Community Activities Phase 2 (hereinafter called the Project) has been planned in line with Japanese Technical Cooperation which object is to systemization of sustainable use of water through establishment of the ASUFOR to support community activities by the implementation of a sustainable system of management and maintenance of facilities and the improvement of hygiene practices. The project was under the implementation with 3years and 3months starting from November 2006 and scheduled to end in March 2010.

### 1-2 Project Overview

(1) Overall Objective
1) Sustainable use of safe drinking water is widely popularized.
2) Community activities are carried out in the villages neighboring the project’s site.

(2) Project Purpose
The sustainable safe drinking water utilization system is put in place in the project sites.

(3) Outputs
1) The operation and maintenance system of the water supply facilities is put in place through the collaboration between the administration, the users and private sector.
2) ASUFORs are established, functional and properly managed on the motorized sites.
3) The management and maintenance system is established in the two pilot sites equipped with human motricity pumps (HMP)
4) The use of water complies with the user’s guide elaborated for that purpose for the direct sites.
5) The hygiene practices are improved among inhabitants of the direct sites.
6) The community activities are carried out in the pilot sites.

(4) Inputs (as of the time of evaluation)
The Japanese side:
1) **Expert Dispatch:** 10 experts in 7 areas were dispatched (Project Manager/Water Distribution Policy, Awareness-raising and Extension, Water supply facilities 1, Water supply facilities 2/Water Resources, Community activities, Social considerations and gender/Health education, Administrative Coordinator/Agriculture, Livestock and Forestry) Total duration was 120.57 months.
2) **Equipment:** Approx. 56,871,000Yens
3) **Training in Japan and third countries:** 9 counterparts (4 in Japan, and 5 in third country)
4) Local cost expenses: Approx 73,134,000 Yens

The Senegalese side:
1) Counterpart Personnel: 29 counterparts (3 from the ministry of water, 18 from regional offices of the ministry of water and 8 others)
2) Provision of land and Facilities: project offices in Tambacounda, provision of a liaison office in Dakar
3) Local cost: payment of water and electricity bills and tax exemption.

2. Evaluation Team

2-1 Members of Evaluation team

The Senegalese side:

<table>
<thead>
<tr>
<th>Responsibilities</th>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader</td>
<td>Mr. Babou SARR</td>
<td>Director of the Cooperation and Maintenance Division</td>
</tr>
<tr>
<td>Coordination of the Project</td>
<td>Mr. Masse NIANG</td>
<td>Staff of Water Department Maintenance Office</td>
</tr>
</tbody>
</table>

The Japanese side:

<table>
<thead>
<tr>
<th>Responsibilities</th>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of the mission</td>
<td>Mr. Shinji UMEMOTO</td>
<td>Senior Representative, JICA Senegal Office</td>
</tr>
<tr>
<td>Consultant in charge of Evaluation</td>
<td>Mr. Kimihiro KONNO</td>
<td>Vision and Spirit for Overseas Cooperation (VSOC) Co., Ltd</td>
</tr>
<tr>
<td>Technical Adviser</td>
<td>Dr. Katsuhito YOSHIDA</td>
<td>JICA Technical Adviser</td>
</tr>
<tr>
<td>In charge of the Cooperation Planning</td>
<td>Ms. Akiko IDA</td>
<td>Representative, JICA Senegal Office</td>
</tr>
<tr>
<td>In charge of the Cooperation Planning</td>
<td>Mr. Masami MOKO</td>
<td>Water Resources Management Division 2, Water Resources and Disaster Management Group, Global Environment Department</td>
</tr>
<tr>
<td>In charge of Coordination</td>
<td>Mr. Mamadou NDOME</td>
<td>Program officer, JICA Senegal Office</td>
</tr>
</tbody>
</table>

2-3 Evaluation Period: January 6, 2010 - February 3, 2010

2-4 Type of evaluation: Final Evaluation

3. Results of Evaluation

3-1. Summary of Achievements

Achievement of the Project Purpose:
Project Purpose: “The sustainable safe drinking water utilization system is put in place in the project sites.”

The project purpose was evaluated as it is “partly achieved”. Most ASUFORs were established according to the 10 criteria specified in the PDM, because the average of points allocated to ASUFORs on the basis of evaluation criteria is 8.5 out of 10 and only 3 sites out of 35 have an average below 6 out of 10. On the other hand, the average related to the General Assemblies is 0.62. This can be explained by the fact that most ASUFORs are getting ready to hold their first General Assemblies and do not know how to go about it the right way and some ASUFORs are waiting for Well and Borehole Brigade (BPF) Heads to set a date they can hold their Assemblies. Even these circumstances, some ASUFORs hold meetings to inform villagers about the problems they encounter and report on the financial situation.

The average of points relating to the meetings of Steering Committee (SC) is 0.67. The reason is some SC members living in the villages that are not connected to the water supply network seem to be no longer interested in ASUFOR’s.
3-2. Outputs
Output 1: “The operation maintenance system of the water supply facilities is put in place through the collaboration between the administration, the users and private sector”.
The output was “partially achieved.” If the current monitoring system is strengthened and the capacities of ASUFORs were built, a lot of hope could be placed on the sustainability of the safe drinking water supply in the Project’s area. The operation and maintenance system of facilities was established in two thirds (2/3) of sites.

Output 2: “ASUFORs are established, functional and properly managed in the motorized sites.”
The output is “almost achieved”. The ASUFORs were established in all sites. However 11 of them is, the one third (1/3) were established in 2009 and 14 in 2008; so ASUFORs were established quite recently. Consequently they need to be supported by Heads of Brigade because they are not always properly established nor even functional since some ASUFORs suffer from an unfavorable environment (abundance of well, low level of education of the populations, etc), a not so much frequent monitoring by BPF Heads and lack of well-trained borehole operator.

Output 3 : “The management and maintenance system is established in the two pilot sites equipped with human motricity pump (HMP)”
The output is “almost achieved”. The daily maintenance system, the procedure to be followed in case of breakdown, the financial management, etc. comply with the instructions of the maintenance and management manuals.

Output 4: “The use of water complies with the user’s guide elaborated for that purpose for the direct sites”. In most project sites, the pump machines are operated by trained persons and the authorized maximum pumping duration was complied. However, some borehole operators did not have the required skills.

Output 5:” The hygiene practices are improved among the inhabitants of the direct sites”. The output is “almost achieved”. In general, some behavioral changes were observed. However, some practices requiring expenditures from households such as utilization of soap, have not been practiced. The participatory method developed in collaboration with the SD, PEPAM, UNICEF, the BTC and other actors significantly contributed to behavioral changes at community level.

Output 6: “Community activities are carried out in the pilot sites”. The output is “almost achieved.” Community activities including small animal raising are mainly carried out by the female members of ASUFORs. The quantity of vegetables and number of small animals increase every year. Community activities have contributed to the progress of ASUFORs by mobilizing villages and creating income source.

3-3. Evaluation of the Results of the Project
(1) Relevance
1) The Senegalese government has set a target to increase the access to safe drinking water in rural area in accordance with the PRPS and arrangements implemented through the Millennium Water and Sanitation Programme (PEPAM).
2) The Project is in line with the Japanese Aid Policy since safe drinking water supply is a part of its main intervention areas.
3) In terms of continuity of the project Phase 1, the project takes into account the achievements from the first phase of the planning to implementation phase.
4) Relevance of the site selection and consideration of environment, gender aspect and specificity of the intervention area.
5) Relevance of aid coordination: toilet construction through distribution of hand pump maintenance manual to UEMOA project, in cooperation with UNICEF.
(2) Effectiveness

The effectiveness is “high.”

1) The project outputs have significantly contributed to attainment of the Project’s objectives.
2) As for the cause-effect relationship between the objectives of the Project and results
3) Inhibiting and contributing factors: delay of ASUFOR establishment activities (which is operated ASUFOR of most of what there was) devoted maintenance center and the length (over obstacles), proactive action of Japanese experts, funds and equipment to the project, support of DEM and subdivision (or more contributor) can be mentioned.

(3) Efficiency

The efficiency is “average.” The Japanese side provided the appropriate inputs and the Senegalese side had to allocate a budget and counterpart personnel.

There have been some issues on project progress as follows;

1) Losses of time and opportunities have been observed due to lack of communication between DEM, the Japanese experts and their counterparts at regional level.
2) The late establishment of ASUFORs: 11 ASUFORs were established in 2009 in the direct sites.
3) The Japanese side could not send experts from March to May because of the Japanese fiscal year.

(4) Impact

The several impacts are observed in the concerned sites.

1) Attainment of the Overall Objective: the Senegalese government will support the establishment and operation of ASUFORs in 40 sites other than those of the Project site. Some villages neighboring the project pilot sites are interested in community activities.
2) Gender Aspect: Women’s water collection burden has decreased so they could devote themselves to income generating activities such as market gardening.

(5) Sustainability

The sustainability is secured by the following facts.

1) Political Aspect:
   PEPAM aims at increase in access of villagers to safe drinking water to 82% in 2015. The activities under PEPAM, including promotion of ASUFORs have been continued by the Senegal side.
2) Institutional and Financial Aspect:
   Since the BPF Heads have heavy role and work load, it is difficult for them to timely repair work. Monitoring system through the telephone is established by the BPF. However, The monitoring system has not fully functioning due to the lack of resources to cover field visit. 23 ASUFORs out of 35 ASUFORs in the project sites can cover the cost of spare parts replacement, repairing minor breakdowns and travel expense for BPFs staff.
3) Technical Aspect:
   The operators of borehole were trained by the project and they can continuously utilize the aged borehole and machines. Most of ASUFORs established in 2009 cannot cope with technical problems by themselves due to the limited technical capacity building.

(6) Conclusion

The establishment of ASUFORs is directly related to water supply stability. Some experienced ASUFORs managed, with the support of BPFs and Project, to solve problem they encountered, other ASUFORs established during the previous year have limited experience in management. Consequently, the Senegal side must continue to monitor and provides guidance to the newly established ASUFORs.

4. Recommendations and learnt lessons

(1) Recommendations

1) Most ASUFORs are managed by the first Executive Board members. The replacement of members must occur democratically during the General assemblies. It must happen under the supervision and assistance of BPF Heads. So, the Senegalese Government should allocate enough budget to monitoring
2) Purchasing safe drinking water is a burden for some inhabitants. As a result, wells are still used for drinking water in some sites. The Project carries out activities meant to improve the health of the target populations through the consumption of borehole water. However, these activities should continue until the populations get used to getting drinking water from boreholes.

3) Transfer of maintenance and ASUFORs’ management to the private sector is being tested in the eastern part of Senegal. Tambacounda and its vicinity will do the same at the end of 2010. ASUFORs in the Project’s intervention area may no longer acquire, on a daily basis, the know-how related to the management of ASUFORs and operation of machines if private operators take over. Consequently, transfer of maintenance to the private sector must be carried out carefully.

(2) **Lessons Learnt**

1) Many factors intervene in the establishment and good management of ASUFORs that enable the implementation of a continuous safe drinking water supply system. These factors include: the existence of wells, surface waters and rivers as well as the topography (some villages are located in an altitude higher than the height of the elevated tank), the illiteracy rate, the existence of villages of workers, the presence of immigrants, ethnic/linguistic plurality, etc. These factors sometimes prevent the use of borehole water as drinking water, extension of the existing network to satellite villages, good management of ASUFORs, good cohesion between villages, etc.

2) The existence of wells and surface waters characterizes sites ASUFORs of which are not active. That was noticed at the beginning of the Project. So, the Project had to elaborate and implement a strategy in order to stimulate activities and if results turned out to be insufficient, the Project had to make the decision to withdraw from those sites. In reality, the Project continued to use its resources in those areas and did not get the expected results.