Summary

Evaluation conducted by: Shinichi Mori, Reiko Nakazawa

1. Outline of the Project

Country: Senegal		**Project title:** Project on the Safe Water and the Support on Community Activities
Issue/Sector: Water Resources		**Cooperation scheme:** Technical Cooperation
Division in charge: Water Resources Management Division II, Global Environment Department		**Total cost:** Approx. 653 million yen
Period of Cooperation	(R/D): 1. 2003—1. 2006	**Partner Country's Implementing Organization:** 1) Competent authority：Ministry of Agriculture and Hydraulics (MAH) 2) Implementing agency：Direction of Exploitation and Maintenance (DEM) 3) Supporting agencies : Direction de la Gestion et de la Planification des Ressources en Eau, Direction de l'Hydraulique, Direction de l' Agriculture, Direction de l'Horticulture, Direction de l'Elevage
Related Cooperation	Japan's Grant Aid (#1-13) on rural water supply system from 1979 to present	

1-1. Background of the Project

Japan has provided assistance to Senegal to increase the rural water supply for the past 25 years. One hundred nine water supply facilities were constructed under the Grant Aid scheme. As a result, many women and children had been released from the burden of fetching water, while people were provided with the opportunity to begin living more hygienic lives. However, the past Japanese cooperation had been focused on the construction of infrastructure, and it has since been realized that effective operation and maintenance are crucial to the infrastructure sustainability.

In response to a request by the government of Senegal to support establishing an effective operation and maintenance system in the communities that already possessed the water supply systems constructed by Japan, as well as support community development activities to improve the lives of the people, a technical cooperation project to establish a sustainable water supply system through activities in the target sites was started in January 2003, with a duration of three years.

1-2. Project Overview

The Project supports the Ministry of Agriculture and Hydraulics (MAH) and its Direction of Exploitation and Maintenance (DEM) in establishing a sustainable water supply system in 24 target sites by facilitating the establishment and management of Associations for Water Facility Users (Association des Usagers de Forages: ASUFOR) as well as community development activities. The duration of the Project was three years, from January 2003 to December 2005.

(1) Overall Goal

(a) The capacity of the administration to diffuse the sustainable potable water usage system is developed.

(b) The living condition of the populations in the target sites has been improved.

(2) Project Purpose

Sustainable water usage system will be established through the activities conducted at the project sites

(3) Outputs

(a) The system for the operation and maintenance of the water supply systems is established through the collaboration between the administration, the village populations, and the local private companies. (b) The management committee is managed properly.

(c) Water usage conforms to the guidelines.

(d) Income generating activities are diversified in the pilot sites.

(e) The populations of the target sites observe good hygiene practices.

(4) Inputs (as of the Project's termination)

Japanese side:

Experts: 9 experts (116.6MM);

Project Equipment: 60,000,000 yen;

Training facility construction and rehabilitation: 60,000,000 yen;

Local activity expenses: 50,000,000 yen;

Trainees received: 8 persons.

Senegalese side:

Counterparts: 12 people in total;

Facility：Office space for Japanese experts;

Local cost: Renovation of the project office, Operation cost (electricity, water, etc.)

2. Evaluation Team

Members of Evaluation Team	Rural Development Evaluation: Shinichi Mori, President, IMG Inc. Impact Assessment: Reiko Nakazawa, Project Officer, IMG Inc.	
Period of Evaluation	7/1/2009 – 26/1/2009	**Type of Evaluation：** Ex-post

3. PROJECT PERFORMANCE

3-1. Performance of Project Purpose

For the Ex-post Evaluation, the following indictors have been adopted for evaluating the proper functioning of ASUFOR: (a) water meters are installed and water tariffs by volume are administered; (b) ASUFOR funds are increased resulting from the introduction of water tariffs by volume; (c) fuel costs for motor pumps decrease due to the decreased pumping hours brought about by economized water usage (careful evaluation is needed since fuel consumption increases as motor pumps and engines become older); (d) net profits (the amount remaining after subtracting necessary expenses, such as costs of fuel and personnel expenses, from the gross profits) increases and ASUFOR is capable of replacing a pump and engine when necessary; and (e) the accounts of ASUFOR are transparent and properly managed.

With the application of these indicators, most of ASUFOR showed an increase in funds and a decrease in expenses at the end of the Project. However, it was deduced from the records prepared during the implementation of the Project that merely half of all ASUFOR had demonstrated the ability to generate a profit that could cover the maintenance cost of the equipment. In addition, it was observed that only half of ASUFOR ensured transparency of thier accounting records. From this perspective, the Project Purpose is assessed to have been only partially achieved.

3-2. Achievement related to Overall Goal

Considering what could and should have been achieved in the 3 to 5 years proceeding the project termination, the Ex-post Evaluation Team adopted the following Overall Goals: (1) the outcomes of, and lessons learned from, the Project are duly incorporated into the national master plan for the establishment of a sustainable water supply system; (2) ASUFOR in the target sites demonstrate financial capacity to replace major equipment (i.e. a pump and engine); and (3) people’ s access to the water supply system within the target sites are improved.

In order for the project outcomes and lessons to be incorporated into the master plan, as indicated in Overall Goal (1), it would be necessary to visit as many ASUFOR sites as possible to gather accurate data on their performance and to then advocate for necessary actions for a sustainable water supply system at the meetings of DEM and other donors. For Overall Goal (2), taking the income level of the population into account, the Ex-Post Evaluation Team concluded that the majority of ASUFOR targeted by the Project were not capable of generating income sufficient to replace major equipment, and that DEM needed to develop a strategy to support those ASUFOR that lack the financial capacity. For Overall Goal (3), it was observed that most ASUFOR at the target sites could barely maintain the existing water facilities; expanding service areas is out of the question. As a result, it is concluded that Overall Goal (1) remains to be achieved in the future, while the achievement of Overall Goal (2) and (3) is still considerably limited.

3-3. Follow-up of the Recommendations by Terminal Evaluation Study

Although the Terminal Evaluation Study recommended the signing of more maintenance contracts between private maintenance companies and ASUFOR, it was observed by the Ex-post Evaluation Team that even the sole ASUFOR that successfully signed a contract during the Project period had not requested any maintenance services of the private company with which it had contracted. ASUFOR are, in general, not willing to pay for preventive maintenance services, moreover the service contract itself is not attractive to the private maintenance company either as the company’s technicians are obliged to travel long distances for a small profit. Therefore, the Team concluded that promoting the maintenance contract was not relevant in consideration of the above circumstances.

It was also recommended in the Terminal Evaluation Study that the MAH’s Borehole Maintenance Centers (Brigargde des Puits et des Forage: BPF) continue monitoring and follow-up activities at existing sites. The Ex-post Evaluation Team confirmed that although each BPF had been making its own efforts to monitor existing sites from time to time, supporting the improvement of ASUFOR`s daily management was beyond BPF`s capacity.

As for the expansion of new ASUFOR sites, which was another recommendation, it was confirmed that some of the BPF had conducted ASUFOR sensitization and dissemination activities independently. However, given MAH`s limited financial and human resources, the expansion of new ASUFOR sites is difficult without the donors' support.

4. Results of Evaluation

4-1. Summary of Evaluation Results

(1) Relevance

Relevance of the Project is considerably high in the sense that the Project is consistent with the Senegalese Government policy to ensure a stable safe water supply by facilitating the transition of maintenance of the water supply system from the government to the private sector with ASUFOR playing a central role.

Furthermore, ensuring a safe water supply has been a priority of Japan's Official Development Assistance (ODA). The Project aims to meet basic human needs in remote rural areas and it conforms to the Japan's ODA policy of the human security.

However, in relation to the activities to diversify production and improve livelihoods in the target area, little synergistic effects were found in the use of funds and management capacity of the observed ASUFOR. Moreover, using ASUFOR's funds for these community activities is not recommended, since it may not only result in a situation where there is not enough savings for repairing water facilities when needed, but also poses a great default risk when the money is used for micro credit. As such, the relevance of this approach is considered low.

(2) Effectiveness

In evaluating the level reached in the establishment of the sustainable water supply system, the Ex-post Evaluation Team adopted alternative indicators including: (a) installation of water meters; (b) increase in ASUFOR funds; (c) decrease in expenses; (d) increase in net profits; and (e) transparency of accounts. Although most ASUFOR have shown an increase in funds and a decrease in expenditures, only half of all ASUFOR showed the capacity to generate a profit that could cover the maintenance costs of the equipment. From this perspective, the Project Purpose is assessed to have been only partially achieved.

(3) Efficiency

Consideration should have been put into the possibility of financially supporting ASUFOR in the upgrading of their water supply facilities so that new ASUFOR could have generated income immediately after their establishment. Instead, a significant investment was made into community activities for diversifying production and improving livelihoods, which were not directly related to ASUFOR activities. As a result, efficiency was compromised. It was confirmed that most of the equipment provided by the Project had been properly utilized.

(4) Impact

It is concluded that Overall Goal (1) remains to be achieved in the future, while the achievement of Overall Goal (2) and (3) is considerably limited. In relation to the impact on beneficiaries, there were cases in which installation of individual connections reduced the burden on women and as a result, women could spend more time on child rearing and income generation activities.

(5) Sustainability

The policy for the establishment of a sustainable rural water supply system continues to be effective and DEM and BPF have acquired skills and tools in ASUFOR diffusion and sensitization from the Project. From this perspective, technical sustainability at the organization level is deemed to be ensured, although financial sustainability is limited. However, when it comes to the maintenance of the water supply facilities, sustainability is questionable and it is necessary to urge the Senegalese government to review and modify the policy requiring ASUFOR to replace major equipment on their own.

4-2. Factors that have promoted project

(1) Impact

It is observed that the financial capacity of ASUFOR is expanding into areas where the income level of the population is high and/or social cohesion is strong. It should be noted that the socio-economic characteristics as well as the geographic conditions of the villages are playing a specific role in the performance of ASUFOR's management.

(2) Sustainability

It was confirmed that some counterparts trained in the Project had been conducting ASUFOR sensitization and diffusion activities independently, which contributed to the establishment of new ASUFOR. The Project involved counterparts in every facet of the Project activities with an aim towards strengthening their capacity, which, in turn, contributed to the technical sustainability of the Project.

4-3. Factors that have inhibited project

(1) Impact

The current national policy for a water supply system uniformly requires all ASUFOR to maintain their equipment on their own, without taking into consideration the situational differences between different ASUFOR; there will be a significant number of ASUFOR that start facing serious vulnerabilities within a certain period of time after creation due to an inability to replace a pump or engine. In fact, Ex-post Evaluation Survey encountered some ASUFOR which had already ceased functioning due to the breakdown of the pump or engine.

(2) Sustainability

Upon establishing ASUFOR, PEPTAC I did not provide any initial investments in water supply facilities. As a result, some ASUFOR stopped operating due to breakdowns that occurred before they accumulated enough saving to maintain their facilities. In the selection of the sites in which to establish ASUFOR, a feasibility study needed to have been conducted to evaluate whether the target site had the financial potential to properly manage the facility.

4-4. Conclusions

With newly adopted indicators of the Project Purpose in the Ex-post Evaluation, it was concluded that although most ASUFOR demonstrated an increase in funds and a decrease in expenses, merely half of all ASUFOR showed capabilities in generating profits necessary for the maintenance of the equipment. In addition, it was observed that only half of ASUFOR ensured transparency of their accounting records. From this perspective, the Project Purpose is assessed to have been only partially achieved.

For the Ex-Post Evaluation Survey, the following indicators were applied for Overall Goal: (1) the outcomes of, and lessons learned from, the Project are duly incorporated into the national master plan for the establishment of a sustainable water supply system; (2) ASUFOR in the target sites demonstrate financial capacity to replace major equipment (i.e. a pump and engine); and (3) People's access to the water supply system within the target sites is improved. It is concluded that Overall Goal (1) remains to be achieved in the future, while the achievement of Overall Goal (2) and (3) is considerably limited. In relation to the impact on beneficiaries, there were cases in which installation of individual connections reduced the burden on women and as a result, women could spend more time on child rearing and income generation activities.

With regard to sustainability, DEM and BPF have acquired skills and tools in ASUFOR diffusion and sensitization from the Project. In this respect, technical sustainability at the organization level is ensured, though financial sustainability is limited. However, when it comes to the maintenance of the water supply facilities, sustainability is questionable and it is necessary to urge the Senegalese government to review and modify the policy requiring ASUFOR to replace major equipment on their own.

4-5. Recommendations

In order for a maintenance contract for a water supply facility between ASUFOR and a private company to be effective, ASUFOR must generate revenues sufficient to cover expenses for maintenance and repairs, while private companies must have the capability to fulfill the contract. The Ex-post Evaluation Team confirmed that in the under-privileged regions, especially for those areas in which the population size is small and the income level is low, having a maintenance service contract might not be feasible. Although the national policy requires ASUFOR to replace pumps and engines, in reality there is little chance that under-privileged sites can reach the stage where they are able to replace major equipment, and thus, it is strongly recommended that the Senegalese government develop a support strategy for those areas.

Generally, in urbanized areas or in those areas where social cohesion is weak, there is not much social pressure to force ASUFOR into managing the facilities properly. Unless there are some imminent problems perceived by the villagers about the water supply facilities, they do not show much interest in the

management of ASUFOR and in such cases corruption could prevail. Under such circumstances, alternative options other than ASUFOR need to be considered in order to avoid the erosion of valuable national property. For instance, BPF may need to play a more active role in governance and appoint someone for the management of the water facilities.

In consideration of all of the above, the Ex-post Evaluation Team suggests that all ASUFOR be categorized by their level of financial capacity as well as by the type of management to be adopted, and that a support strategy be established by DEM for each category.

4-6. Lessons Learned

Using ASUFOR's funds for activities to diversify production and improve livelihoods is not recommended, since it may not only result in a situation where there is not enough savings for repairing water facilities when needed, but also pose a great default risk when the money is used for micro credit.

In order for newly established ASUFOR to properly function, the ASUFOR need to gain necessary income through water fees to cover the costs of facility maintenance. For that reason, the Project could have been more effective if there had been an initial investment to support ASUFOR in generating a sufficient financial base.

Upon establishing ASUFOR, a detailed survey of the condition of existing equipment and facilities, the expected number of users, and the profits to be generated from the water fees at each site needs to be conducted to verify the viability of each water supply system. Additionally, some specific measures should be taken upon facilitating the establishment of an ASUFOR in those areas where financial viability is low.