

Evaluation Summary

1. Outline of the Project

Country: Republic of Senegal

Project Title: Project for Safe Water and Support for Community Activities

Issue/Sector: Water resources

Cooperation Scheme: Technical Cooperation Project

Division in Charge: Water Resources Management Team II, Group III, Global Environment Department

Total Cost (including the preliminary and preparatory studies): 653 million yen

Period of Cooperation

(R/D): 7 October 2002

Period of Cooperation: 3 years

(January 2003 - January 2006)

Partner Country's Implementing Organization(s):

1) Competent Government Agency: Ministry of Agriculture and Hydraulics

2) Implementing Agency: Directorate of Exploitation and Maintenance (DEM)

3) Supporting Organization(s): Directorate of water resources planning and management (DGPRES); directorate of hydraulics (DH); and other directorates in charge of production activities (directorate of agriculture [DA]; directorate of horticulture [DH]; and directorate of stockbreeding [DE])

Supporting Organization(s) in Japan: Techno Co., Ltd.; Earth and Human Corporation

Related Cooperation: Grant aid in rural water supply from the first phase (1979) through the 13 phase (ongoing)

1-1 Background to the Project

For more than 25 years, Japan has been extending grant aid to the Republic of Senegal in a series of projects for rural water supply. These projects have greatly contributed to a better living environment for local people, releasing women and children from the burden of fetching water and allowing them to live a more sanitary life.

Japan's assistance to Senegal in water supply has focused on infrastructure development with grant aid, constructing and repairing water towers. It was increasingly clear that how to operate, maintain, and build on such infrastructure is a crucial issue for sustainable development in Senegal. These circumstances prompted the Senegalese government to request this Project. The Project has two major objectives: (i) to provide guidance on the management of water management associations in 109 water supply sites with water supply facilities that have been developed under the grant aid scheme (which benefit more than

300,000 people as against the Senegal's total population of some nine million); and (ii) to support women and other groups of the local populations in their livelihood improvement and rural development activities.

In response to this request, the Japan International Cooperation Agency (JICA) sent a preparatory study mission to Senegal in three phases. After the consultation process, JICA and the Senegalese side agreed to implement a technical cooperation project designed to "establish a sustainable water use system through the activities at the project sites" for a period of three years starting from January 2003. The two sides signed and exchanged a Record of Discussions (R/D) to that effect on October 7 in 2002.

1-2 Project Overview

(1) Super Goal

To diffuse a sustainable water use system throughout Senegal

(2) Overall Goal

- 1) To develop the institutional capacity to diffuse the sustainable water use system
- 2) To improve the living conditions of the populations in the target sites

(3) Project Purpose

To establish sustainable water use system through the activities at the project sites

(4) Outputs

- 1) An operation and maintenance (O&M) system of water supply facilities will be established throughout the collaboration between the government sector, communities, and local private companies.
- 2) The water management committee will be managed properly.
- 3) Water use will conform to the guidelines.
- 4) Production activities will be diversified in the pilot sites.
- 5) The populations of the target sites will observe good hygiene practices.

(5) Inputs (until the time of evaluation)

Japanese side:

Expert assignment: 9 experts (116.6 M/M)

Trainees received: 8 persons

Equipment: 64,852,000 yen

Provision of training facilities: 57,232,000 yen

Local cost: 53,395,000 yen

Senegalese side:

Counterparts: persons: 12 persons

Offices and other facilities: Offices for Japanese experts

Local cost: Office refurbishment costs, power, water supply, etc.

2. Evaluation Team

Members of Evaluation Team

Number of Team Members: 4

(1) Team Leader: Ikufumi TOMIMOTO Managing Director, Global Environment Department, JICA

(2) Evolution of Water Resources Management Policy: Masahiro MURAKAMI Professor, Professor. Graduate School of Engineering, Kochi University of Technology

(3) Study Planning: Eri SUGITA Group III, Global Environment Department, JICA

(4) Evaluation Analysis: Michiyuki KEMMOTSU Chuo Kaihatsu Corporation

Period of Evaluation

5 (Sat) - 27 (Sun) November 2005

15 (Tue) - 25 (Fri) November 2005 for the official team members

Type of Evaluation: Terminal Evaluation

3. Results of Evaluation

3-1 Achievement Level

All the Outputs will be achieved by the completion of the Project.

The Evaluation Team concludes that the Project Purpose has achieved the Project Purpose judging from its achievement on the two Objectively Verifiable Indicators: (i) an improvement in the operation and maintenance (O&M) capacity in the project sites; and (ii) a reduction in the number of days during which water supply is suspended due to a facility breakdown. To maintain this state of affairs, however, three requirements have to be met. The first requirement is to establish a model whereby a contract with a private company will be concluded on the O&M of water supply facilities in remote sites where such private service providers are difficult to find. The second requirement is to make legal arrangements so as to define the roles of the government sector clearly, and the third is to oversee contracts with private service providers.

3-2 Summary of Evaluation Results

(1) Relevance

The Ex-ante Evaluation Document (November 2002) states that the Project is highly relevant. The situation has not changed since this document was prepared. Rather, the relevance of the Project is higher now because of the following factors:

- The Project is consistent with Target 10 of the UN Millennium Development Goals (MDGs): Reduce by half the proportion of people without sustainable access to safe drinking water by 2015.
- The Project contributes to three of the four priority issues: (i) poverty reduction; (ii) sustainable growth; and (iii) addressing global issues.

- The Japan's aid policy for Africa, announced by the Ministry of Foreign Affairs in April 2005, stresses the need for providing African people with access to safe water and sanitation under its principle of human-centered development.
- The Senegalese government has announced the reform policy of a water supply service known as "Reforme," with targets to be met by 2015, in line with the MDGs. Among other objectives, this policy calls for a transfer of the O&M of rural water supply facilities from the government sector (DEM) to the direct local beneficiaries. The idea is to ensure a sustainable framework for operating and maintaining the facilities in light of limited financial and human resources. The Project supports the organizing of water users into water management associations called ASUFORs. While these associations take charge of day-to-day O&M of water supply facilities, the Project encourages private contractors to undertake O&M that entail large equipment. In that sense, the Project is in line with the policy of the Senegalese government.
- The Project encourages women and the young to participate in the ASUFOR activity, which also includes those for diversifying production activities and improving the living environment in the target sites. These activities contribute to poverty reduction and infectious disease control, two of the global development goals.

(2) Effectiveness

The Project is considered effective. The Evaluation Team concludes that the Project Purpose has achieved the Project Purpose judging from its achievement on the two Objectively Verifiable Indicators: (i) an improvement in the operation and maintenance capacity in the project sites; and (ii) a reduction in the number of days during which water supply is suspended. All the Outputs have contributed to the achievement of the Project Purpose.

(3) Efficiency

All the project inputs were put to effective use in the project activities, contributing to the achievement of the expected outputs. The ratio of expert inputs to other inputs (equipment and counterpart training in Japan) in the Project is higher than other technical cooperation projects. This contract-based Project was efficient: It has achieved most targets for the performance indicators in only three years.

The Project took the initiative to organize a liaison council of JICA and other donors (AFD of France, CTB of Belgium, EU, and Luxembourg) that were implementing similar projects (aimed at promoting ASUFOR) in Senegal. The sharing of information, techniques, and tools useful for promoting ASUFOR through the council has helped make the project activities more effective and efficient. The Project also suggested organizing a liaison council involving three directorates involved in water supply (DH, DEM, and DGPRE). This council met regularly during the project period.

(4) Impact

1) Prospect of the Overall Goal and the Super Goal being attained

Many studies suggest that the provision of water supply facilities reduces the water-borne disease and results in a fall in the dropout rate for primary education. (The same phenomena were confirmed in areas where data before the provision of water facilities were available.) Whether these indicators will remain at a low level will depend much on whether the facilities will be properly operated and maintained and able to supply water in a stable manner. Because ASUFORs are expected to continue proper O&M, both the prevalence and the dropout rate will probably be kept low. It is thus likely that the Overall Goal will be attained. Nevertheless, follow-up arrangements after the completion of the Project Purpose, including regular visits to the project sites, will be key.

The Super Goal of the Project corresponds to Target 10 of the MDGs: Reduce by half the proportion of people without sustainable access to safe drinking water by 2015. Achieving the MDGs is an issue of strategic importance for the Senegalese government, which regards proper management of ASUFORs as an important step toward attaining the global development goals. If the government creates an enabling framework for continued follow-ups to the project sites and extension to new sites, the Super Goal will likely be achieved by 2015.

2) Other effects

Stable supply of safe water is a key basic human need. The Project, which aims to achieve it, is having a major positive impact on many aspects as shown below:

- The formulation of related policies and the development of laws, systems, and standards (promoting ASUFOR and developing a framework for private contracts)
- Gender equality (encouraging women's participation in ASUFOR)
- The personnel, organizational structure, and budget of the implementing agency (e.g., institutional strengthening for promoting ASUFOR)
- Environmental protection (promoting eco-friendly farming, performing groundwater monitoring, etc.)
- Technical aspects (techniques for promoting ASUFOR, gender mainstreaming, continuous training for operators, water-saving farming, intensive stockbreeding techniques, etc.)

No major negative effects are expected at the moment.

(5) Sustainability

Sustainability at the community level: Whether the water use associations will be sustained and developed by the local residents and others in the project sites even after the termination of the Project

Sustainability significantly depends on the project sites. It is high in the advanced, good practice sites where local residents have already been empowered. The late-starter sites need continued follow-ups as they are still inexperienced in ASUFOR activities.

Sustainability at the national level

The counterparts have been empowered. They now have a certain capacity to provide follow-ups to the project sites and perform promotion activities for prospective sites after the completion of the Project. (In fact, the counterparts did promotion activities in 53 prospective

sites using teaching materials and tools that had been developed in the Project.) However, they lack enough funds and personnel for extending ASUFOR activities nationwide.

Sustainability as a whole

The model for promoting ASUFOR is being established. The counterparts have been empowered. The Project is consistent with one of the important government policies. The Evaluation Team concludes that the Project is sustainable. Procedures regarding contracts with private service providers are being developed in the Project. It is thus expected that more and more contracts will be concluded between ASUFORs and private entities. To make this sustainability more certain, the recommendations described later should be acted on.

3-3 Contribution Factors

(1) Technical transfer approach

In JICA's technical cooperation projects, it is assumed that Japanese experts focus on only their counterparts for their technology transfer and that technical guidance for the target beneficiaries is up to the partner country. In reality, however, many technical cooperation projects by JICA address the capacity development of both the counterparts and local communities--a practice regarded as a major advantage of JICA's projects. This particular project was no exception. The Japanese experts and their counterparts worked together to provide technical guidance to local branches (BPF) of the Directorate of Exploitation and Maintenance (DEM) and participatory water management associations (ASUFORs), although the target of technology transfer was limited to 12 counterparts. This approach has proved effective in the Project.

(2) Annual monitoring and amendments to the PDM based on the monitoring results

- The Japanese experts and their Senegalese counterparts jointly organized a progress reporting seminar every year.
- Every year, the Project involved new counterparts because it expanded its scope along the project process. The Project organized an annual PCM workshop mainly to provide necessary information to these new participants. This workshop also reviewed the progress, discussed the annual activity plan for the next year, and studied possible amendments to the PDM.
- Based on the Conclusion at this annual workshop, the counterparts and Japanese experts drafted amendments to the PDM and the activity plan for the coming year. These drafts were submitted to the joint coordination committee for approval.
- As a result, the Inputs, details and timing of activities, indicators for the goal/purpose and outputs in the PDM were changed as appropriate, while the basic framework, notably the outlines of the R/D, remained unchanged. This made the project implementation all the more effective and efficient.

(3) Support for late-starter sites by advanced sites

The Project has won cooperation from people in the advanced sites in terms of ASUFOR in promotion activities in late-starter sites. (These people participated in community meetings,

offering their views and answering questions.) This approach helped motivate the late-comers, contributing to the positive effects of the Project.

3-4 Inhibiting Factors

(1) The Project focused on 24 sites for its activities for promoting ASUFOR. All these sites were located in remote areas, far from the nation's capital. Some of these sites were a few hours' drive away from highways and accessible only via unpaved roads. Some of these unpaved roads were inaccessible during the rainy season. Driving during the night was extremely dangerous. In these cases, project activities were limited to the daytime.

(2) Many of the project sites constitute a plural society made up of a few peoples, including the Wolof, an agricultural people, and the Peul, the nomadic people. Social and cultural customs are quite different among these ethnic groups. Their economic interests vary. These factors made lengthy discussions necessary for consensus building.

(3) The attendance rate of agricultural peoples in project-related meetings was low during the busy farming seasons (the rainy season and the subsequent harvesting season). Nomadic peoples, on the other hand, stay away from the hamlets for pasture during the dry season, although they stay in and around hamlets during the rainy season. It was extremely difficult to have consultations between these two kinds of peoples, although many project activities hinged on such consultations.

(4) As discussed above, the geographical distribution of project sites among remote areas was a major obstacle on the efficient implementation of project activities. Another major obstacle was the difficulty in selecting appropriate private contractors for O&M of water supply facilities. Major competent contractors showed little interest in signing a contract with ASUFORs in remote areas, while smaller contractors often had only insufficient capabilities.

3-5 Conclusion

The Project is highly relevant because it supports the establishment of a participatory system for operating and maintaining rural water supply facilities, an extremely urgent issue of high priority for Senegal. It has almost achieved its objectives effectively and efficiently, with many positive effects having emerged. It is safe to say that the Project has been a success as a whole. As for sustainability, some counterparts have taken advantage of the techniques and tools that have been introduced by the Project and started activities to promote ASUFOR on their own initiative in some areas other than the project sites. This is clear evidence that the technical sustainability of the Project is high. The financial sustainability is not as high, however. The Evaluation Team has concerns about whether enough budget allocations will be secured to continue the ongoing activities by the Senegalese side alone.

3-6 Recommendations

3-6-1 Activities and outputs to be achieved by the end of the project period

(1) The team of Japanese experts and Senegalese counterparts are now making the round of the project sites for inspection and additional guidance where necessary. It is recommended that they will compile the results of these follow-up activities into a report and submit it, including recommendations, to the Senegalese side.

(2) Progress has been slow in one component of Output 1, namely, promoting O&M contracts between ASUFORs and private service providers. By the time of this terminal evaluation, only one site in the northern region signed such a contract. More efforts should be made to ensure that at least one site in the south will be able to clinch such a maintenance deal with a private entity.

3-6-2 Activities after the project period

In the Project, ASUFOR has been organized and started operation in all of the 24 sites designated for its promotion. In that sense, the Project Purpose has been achieved. It is hoped that the Senegalese side will move forward toward the attainment of the Overall Goal and even the Super Goal by appropriately managing ASUFORs and organizing them in new sites for the ultimate goal of nationwide expansion. For that to happen, the Evaluation Team recommends that the Senegalese side establish a framework for that purpose and that JICA explore what it can do to help the Senegalese. Specific recommendations include:

- (1) Making necessary arrangements to continue the monitoring and follow-ups for the existing sites and expanding ASUFOR activities to new sites (in such aspects as human resources and financing);
- (2) Developing an effective model whereby remote sites will secure O&M contracts with private service providers.

3-7 Lessons Learned

The Project is successfully nearing its end of the planned period. Major successful factors are shown below:

(1) Conformity to the needs of the partner country

One of the major factors for the success of the Project was that the Project's key aim was to establish a participatory system for operating and maintaining rural water supply facilities was an extremely urgent issue of high priority for Senegal. This Project has demonstrated how important it is for development assistance to place a strategic focus on priority issues in the policy of the partner country. The Project took careful measures to assess and respond to the needs and demands of the communities.

(2) Coordination with similar projects by other donors

At the proposal of the Project Team, donors implementing rural water supply projects in Senegal organized a meeting where information was exchanged and useful tools and techniques shared among AFD (REGFOR), CTB (PARPEBA), EU (PRS2), and JICA. The participating donors have begun to prepare a common manual.

(3) Deep understanding of different conditions of the sites

The 25 project sites are distributed throughout Senegal. Social and natural conditions vary considerably, depending on the site. At its early stages, the Project conducted various studies, including social research, gender analysis, needs assessment, and fact-finding surveys on the state of operation and maintenance of water supply facilities. Moreover, many of the JICA experts sent to Senegal had long experience in working in Senegal and therefore had a good grip of local situations. Owing to them, the project activities were designed to accommodate the regional diversity. Manuals and guidelines on facility operation and the ASUFOR activity were translated into local languages.

(4) Method of technology transfer

Although technology transfer was partly performed by providing lecture-type training, the main focus was placed on the method of learning by experience. The Japanese experts and the Senegalese counterparts teamed up to stay in communities and conduct project activities there. This method is especially effective in projects aimed at establishing a participatory O&M system as in the Project.

(5) From organizational strengthening to the diversification of production activities

The Project has a component of rural development through the diversification of production activities (agro-pastoral production), in addition to the main component of the O&M of water supply systems. Agro-pastoral production was under the jurisdiction of a different government office from the implementing agency (DEM). This posed a few difficulties. Still, the Evaluation Team concludes that the production activities were successfully diversified.

A major factor for this success is that the Project limited agro-pastoral activities to the sites where ASUFORs were well organized. This suggests that agro-pastoral activities are more likely to succeed after the formation and consolidation of ASUFOR.

(6) Effectiveness of the meter-rate system

Some communities first opposed the idea of introducing a system whereby water is charged for the volume consumed. This system later proved effective in many aspects, including fairness in water charging, transparency of accounting, and water saving. In the agro-pastoral activities, the system demonstrated to the communities that excessive water use increases costs, reduces profits, and runs the risk of falling into the red.

(7) Monitoring system

The Project has supported the establishment of monitoring systems for water resources, water supply facilities, and ASUFOR activities. Monitoring water resources, including pumping discharges and changes in the groundwater level, is crucial in avoiding overuse of water resources and damage to the infrastructure. Effective O&M and appropriate water use require monitoring of and advice on ASUFOR activities. Continuous monitoring is vital for sustainability at the community level.