# Senegal

# **Reinforcement of Rural Water Supply System**

Project Sites Tambacounda, Kaolack, Touba Bogo, Medina Boulel Sy, Darou Minam I, Moure, Boke Dialoube, Gaoudi Goti, Taïba Ndiaye, Dialakoto Goumbayel, Kara Vendou



# 1. Background of Project

In Senegal, located south of the Sahara desert, rural communities, home to about 60 percent of the total population, faced a serious shortage of water due to the drought of the 1970s and 1980s. Therefore, the Government of Senegal identified the establishment of rural water works as an urgent and primary issue, and attempted to formulate a concrete maintenance plan. Japan had implemented some cooperation programs in the field of rural water supply in Senegal, but repair work and extension of the existing water supply facilities was necessary as part of the network was more than ten years old and the demand for water grew apace the growth in population. Establishing a maintenance center was also needed to conduct large-scale repair work of water supply facilities.

Under these circumstances, the Government of Senegal formulated "the Project for Reinforcement of Rural Water Supply System" and requested Grant Aid from Japan with the aims of renovating and extending ten water supply facilities and two maintenance centers.

## 2. Project Overview

(1) Period of Cooperation

FY1995-FY1997

(2) Type of Cooperation

Grant Aid

(3) Partner Country's Implementing Organization

Department of Waterworks, Ministry of Hydraulics

#### (4) Narrative Summary

1) Overall Goal Rural communities and rural industry in Senegal are developed.

2) Project Purpose

A stable water supply is provided to community people in the targeted villages for domestic use and for livestock.

Mauritania

- 3) Outputs
  - a) Ten water supply facilities are renovated.
  - b) Two maintenance centers are established.
- 4) Inputs

Japanese Side

Grant Total 1.39 billion yen (E/N amount)

#### Senegal Side

Water supply facilities

Land

#### 3. Members of Evaluation Team

#### Team Leader:

Kiyohumi KONISHI Director, Project Monitoring and Coordination Division, Grant Aid Management Department, JICA

# **Facilities Study:**

Kinichi HASHIMOTO, GIJUTU KOKAI

## **Operation and Maintenance Study:**

Yasuyo OKUMOTO, Institute for International Cooperation, JICA

#### **Interpreter:**

Toshiyuki MORITA, Japan International Cooperation Center

## 4. Period of Evaluation

10 April 2000-20 April 2000

## 5. Results of Evaluation

#### (1) Efficiency

The project was efficiently implemented and the construction of facilities and procurement of equipment were conducted as initially planned.

#### (2) Effectiveness

In all three villages where the evaluation study was carried out (Dialakoto, Goumbayel, and Taïba Ndiaye), 35 liters of safe water were distributed per person per day, and water for livestock was also secured. The same situation was identified in the other seven villages where perfunctory examinations were carried out in tandem with this evaluation study.

Before the project was implemented, there was only one head office for maintenance work which was responsible for the maintenance of about 230 deep wells, therefore it took two to three months to carry out repair work on distant facilities. After the establishment of the two maintenance centers, the wait period for repair work was reduced to about one week. As such, it was considered that the project purpose was accomplished.

## (3) Impact

It was recognized that various self-help activities were attempted in the villages according to their conditions. For example, one village prepared vegetable gardens and started to grow vegetables in order to utilize surplus water for productive activities, with the women's association receiving a subsidy from the Ministry of Agriculture. Another village established a day care center and attempted group nursing in order to make collaborative work of vegetable cultivation easier. As these results showed, it was evaluated that the project had a significant impact on the improvement of people's lives.

#### (4) Relevance

Extension and improvement of water facilities and enhancement and construction of rural infrastructure were incorporated in the Ninth Plan for Social and Economic Development (1997-2001) of the Government of Senegal as well as in its strategic policy that set the goals of quality improvement of government services and provision of infrastructure work and enhancement of rural development and integration. Therefore, the relevance of this project, which aimed at establishing rural water supply facilities, was evaluated to be high.

## (5) Sustainability

A maintenance system was established in each village as a result of the efforts of the Government of Senegal and no problems were found in terms of facility operation by community people. In principle, funds for operation of water supply facilities were covered by village people and the money was collected by the water management association. In the villages visited by the evaluation team, a clear collection system was there and collection of fees



Water supply facilities in Dialakoto village

was strictly enforced.

In order for people in rural communities to afford water fees, they have ways to earn a cash income. In some villages, people started to grow vegetables using surplus water, even though they lacked the knowledge and skills of vegetable cultivation. Measures such as the transfer of technology on vegetable cultivation seemed to be necessary in order to raise productivity, ensure a cash income, and achieve efficient use of water.

In terms of the maintenance center, although the government's financial situation was difficult at the time, appropriate allocation of budget and personnel was secured by the Ministry of Hydraulics. Therefore, it was considered that there would be no problem of sustainability.

# 6. Lessons Learned and Recommendations

# (1) Lessons Learned

When a cooperation program is carried out in the field of rural water supply, cooperation should not be limited only to the area of hardware, such as provision of facilities and equipment. Cooperation for software, such as low-profile support for rural development, also should be considered together with the partner countries and community people.

# (2) Recommendations

It was evaluated that there was no need for Follow-up cooperation as this project achieved the expected outcomes. However, it would be desirable to consider the possibility of transfer of technology on vegetable cultivation in order to further enhance sustainability of this project through achieving efficient use of water and secure collection of water fees.