

Terminal Evaluation

Africa

1. Outline of the Project

Country:

Federal Democratic Republic of Ethiopia

Project title:

Groundwater Development and Water Supply Training Project

Issue/Sector:

Water Resources Development

Cooperation scheme:

Project-type Technical Cooperation

Division in charge:

Second Technical Cooperation Division,
Social Development Cooperation Department

Total cost:

690 million yen

**Period of
Cooperation**

15 January 1998 - 14
January 2003

Partner Country's Implementing Organization:

Ministry of Water Resources,
Addis Ababa Training Center

Supporting Organization in Japan:**Related Cooperation:****1-1 Background of the Project**

In Ethiopia, the water supply rate was extremely low at 19% of national averages, 11.5% in agricultural villages (based on the data collected in 1990 - 1991) compared with 41% of the average of Sub-Sahara African Countries. Many villagers in rural agricultural areas could not help spending huge time and energy to assure water that they need in their everyday life and the low rate of water supply was one of the reasons why people were suffering from poverty. Although the water supply service had been transferred to the municipal governments from the national government based on the decentralization policy of the new national administration established in 1994, each municipal government did not have enough manpower to provide a water supply service for its people. Therefore, it was necessary to level up the engineers urgently.

Under these circumstances, the government of Ethiopia planned training for engineers and dissemination staff engaged in ground water development and water supply services, which covered planning and investigation, well drilling, maintenance of well drilling machinery and water supply management in each community, and requested to the Japanese government for support of a plan.

1-2 Project Overview

In order to improve the water supply rate in Ethiopian agricultural villages, the project implemented technical training to the staff of state governments to develop and promote underground water and water supply management, to develop the curriculum for the Addis Ababa Training Center (the Center), to improve facilities and equipment, and to improve the capability of the instructors.

(1) Overall Goal

Enough safe water is supplied by enhancing groundwater development and capacity building through appropriate water supply technology training.

(2) Project Purpose

Regional staff involved in the ground water development and water supply program is developed with emphasis on gender and development.

(3) Outputs

1) Addis Ababa Training Center (the Center)

- a) The center is established, managed, operated and maintained.
- b) Equipment and material procured under the cooperation are utilized, operated and maintained.
- c) Technologies and related knowledge provided by the following courses and the program are transferred to regional staff involved in the ground water development and water supply program.

Core Courses: Ground Water Investigation/ Drilling Technology/ Drilling Machinery Maintenance/ Local Social Development

Ad hoc Courses: Water Supply Management/ Operation and Maintenance of Mechanical and Electric Equipment

Cross-cutting Program: Gender and Development

2) Model Area

- a) The training model of field activities is established and maintained.
- b) The center develops the learning cycle to accumulate the experiences in sustainable rural water supply development and management process.

(4) Inputs

Japanese side:

Long-term Experts	10	Equipment	375 million yen
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Short-term Experts	7	Local Cost	102 million yen
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Trainees received	13		
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Ethiopian Side

Counterparts	15		
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Land and Facilities

Equipment and Local Cost	21 million birr (375 million yen)		
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2. Evaluation Team

Members of Evaluation Team

Team Leader/General: Hideki HIROTA, Director, Second Technical Cooperation Division, Social Department Cooperation Department, JICA
Water Supply Technology: Yoshiki OMURA, Senior Advisor, JICA
Regional and Social Development: Katsuhiko KANO, Professor, Faculty of Letters, Kanazawa University
Evaluation Planning: Minako SUGAWARA, Second Technical Cooperation Division, Social Development Cooperation Department, JICA
Evaluation Analysis: Harumi IIDA, Global Link Management, Inc.

Period of Evaluation

21 July 2002 - 17 August 2002

Type of Evaluation:

Terminal Evaluation

3. Results of Evaluation

3-1 Summary of Evaluation Results

(1) Relevance

The project purpose of improving water supply rate and human development in the fields of ground water development and

water supply was in line with the national development policy of Ethiopia and the Sector Development Plan (draft in March 2002) as well as the ODA policies of the Japanese government to Ethiopia. Thus, the relevance of the project was high.

The need of ground water development and water supply in Ethiopia was high, but there was not any organization, which conducted practical training from a technical point of view. Therefore the project aiming at the quality improvement of middle-class engineers of municipal governments was evaluated positively as it met the actual condition of Ethiopia. In addition, it was beneficial for the development of the regional community of the society as the participants were motivated to take gender into consideration and the project also aimed at enhancing management and maintenance capabilities of community projects to realize the maintenance and management of water supply facilities within the regional community.

(2) Effectiveness

Over 300 participants, which was more than the original plan, took the training courses/program at the center, and 80% of the participants evaluated that the contents of the training were useful for their daily work. The regional and state governments highly evaluated the courses, and the project purpose was accomplished in terms of the number of participants and the quality of the training as they matched the original plan. Judging from the above, the effectiveness of the project was high.

As for the issue of gender and development, although it was observed that some of the ex-participants took the issue into consideration and tried to solve the problem, the achievement of the purpose was not enough owing to complicated factors such as regional differences that affected their behavior. Therefore, in the short run, it was difficult to attain favorable results in the course of the project by the state governments, and the realization of the effects needed to be dealt with from a long term perspective. The Ministry of Water Resources well recognizes the importance of the gender issue in relation to the underwater development and water supply projects as it is expected that the life of women who go to a well to draw water is improved through the development.

(3) Efficiency

The project has utilized both Japanese and Ethiopian inputs (human resources and materials) efficiently, which contributed to the realization of the project activities. The equipment provided through the project accounted for as much as 375 million yen, which was necessary as an initial investment, and the equipment is going to be utilized in the future as well. Therefore, the efficiency of the inputs should be measured from a long-term perspective too. In the meantime, as there is no organization which offers similar training in the same fields as the training center, it is difficult to compare the cost of the center with others.

(4) Impact

As for the movement toward the overall goal of improvement of water supply, contribution to the water supply projects was observed at regional levels. People in Ethiopia have come to recognize the importance of the center to be as the first and only organization to offer practical training in ground water development and water supply in Ethiopia. The effects of the training contributed to the improvement of techniques, and the efficiency of the work of participants improved as well as the regional governments improving water supply services. In the model district (Oromiya district), practical training was given in the fields of well drilling and an organizational approach of the people in the area. As a result of these disseminating activities and the water supply facilities provided through the project, there were positive impacts such as lifestyle change and the improvement of the idea of the sanitation of the people in the region.

(5) Sustainability

The Ministry of Water Resources has shown strong will to manage and maintain the center as well as to enhance its activities. The Ministry has clear intentions to upgrade the status of the center to an independent organization under the ministry so that the center can fulfill its own responsibilities. However, at the terminal evaluation, the counterparts have not reached the technical level to be able to manage and implement training courses by themselves. For future sustainability of the center, it is necessary to allocate sufficient budget as well as to transfer further techniques so that the counterparts become capable of planning training courses and instructing the development of textbooks.

Based on an interview survey, many counterparts mentioned it was necessary that their labor conditions such as their wages be improved to continue working at the center. Although about 20 to 30% of their wages are to be offered as an allowance for the project, it is necessary to contemplate methods other than an increase of their payment for transfer of technologies and knowledge to be firmly established in the country.

3-2 Factors that promoted realization of effects

(1) Factors Concerning the Planning

1) As for the training activities, the participants from all ten states were accepted by every course every time, which contributed to the dissemination of the effects of the training across the country and the enhancement of the effects of the project.

2) Putting importance not on the theory but on the practice of the training contents was effective to foster the engineers in target fields.

(2) Factors concerning the Implementation Process

1) The project was smoothly implemented because many long-term experts knew well about the Ethiopian situation and the Ethiopian side had a positive and active attitude toward the project.

2) As for the training activities, at the end of each course, evaluation was implemented, and improvements for each activity reflected the contents of the training. The issues that were observed and to be dealt with in daily work were solved through frequent meetings and discussions among the staff of the Ministry of Water Resources and the Japanese experts, which also contributed to the smooth management of the center.

3-3 Factors that impeded realization of effects

(1) Factors Concerning the Planning

The activities at model districts took time before the commencement of activities as the concrete activity plan had not been settled at the early stage of the project commencement, which also required work to determine the purpose and framework of each activity as needed.

(2) Factors concerning the Implementation Process

The project required implementation of the activities at the center parallel to the activities at model districts, two different types of activities in other words, at the same time. As a result it was necessary to communicate among concerned personnel closely and to keep common recognition on the direction of activities and on how to promote activities, and it took plenty of time to foster common recognition. In the model districts (two districts were planned for activities), implementation was more difficult than expected, and it took time to select the district and organize agreement from its people, and it was in one district only that the activities were implemented in the end.

3-4 Conclusion

The project met the need of water development in Ethiopia, and Addis Ababa Training Center which was established through the project could offer more training to participants than originally planned. The scale of the construction of water supply facilities at model district activities was small, but it was a precious practical experience for the participants as well as a contribution to the improvement of the living standard of the beneficiary regional communities, therefore the project achieved positive results. However, the counterparts have not reached the technical level to be able to manage and implement training course independently, and continuous support was necessary to maintain the effects of the project.

3-5 Recommendations

(1) It is necessary to emphasize the following activities until the termination of the project; 1) To review and complete the curriculum, textbooks, and training equipment for training courses; 2) To promote technical transfer to the counterparts.

(2) It became clear that the training needs of regional states varied in terms of the technical levels and the fields of training because of the different geographical or social conditions, it is necessary to study the training needs, to review the curriculum, and to improve the coverage and the contents of the training. Although the project mainly targeted the middle-level engineers, it would be necessary to consider implementing training for lower level engineers if necessary.

(3) It is necessary to set up an advisory committee for the training to maintain and improve the quality of training.

(4) To hold each training course/program by the Ethiopian staff autonomously, it is necessary to allocate appropriate personnel to each course/program. To maintain the level of staff, it is important for the staff to transfer the knowledge and techniques to one another.

(5) The usage of water supply facilities settled at model areas changes with climate changes such as the rainy season and dry season. Therefore, it is necessary to implement regular and continuous monitoring to cope with them from now on. It is important that the results of the monitoring should be analyzed as case studies and be utilized for training at the training center.

3-6 Lessons Learned

(1) In the project, the activities at model districts were conducted to unify the theory and practice, which was precious experience for participants. However, the practical activities in the field included uncertainty that was caused from difficulties and risks of activities at sites such as irradiation, organization of its people and well drilling, therefore, it was not easy to appropriately harmonize with training activities that required designed activities. For similar projects in the future, it is necessary

to consider expected difficulties and risks multilaterally as well as to organize a precise and concrete activity plan in advance and to share it among parties such as concerned personnel of the beneficiary government, the experts and JICA headquarters.

(2) The importance of gender issue is recognized in the water supply and sanitation sub-sector. However, a clear plan was not developed for concrete contents of the activities in those fields at the beginning of the project. "Gender and Development" is one of the key issues in the ODA of the Japanese Government. Therefore, it is necessary to clarify concrete contents of activities in advance to cope with the issue of "Gender and Development".

3-7 Follow-up Situation

Upon the recommendations mentioned above, cooperation is to be extended by two years between 15 January 2003 and 14 January 2005, with the expected outputs of "1. Implementing technical cooperation to engineers and village development disseminating staff at Addis Ababa Training Center" and "2. Monitoring activities at a model district."