

Ethiopia

Termination Evaluation Report on the Project for Capacity Building of the Alemgena Training and Testing Center of ERA

Evaluation Summary

1. Outline of the Project

Country: Federal Democratic Republic of Ethiopia

Project Title:

Project for Capacity Building of the Alemgena Training and Testing Center of ERA

Issue/Sector: Transportation

Cooperation Scheme: Technical Cooperation Project

Division in Charge: Transportation Team II, Group III, Social Development Department

Period of Cooperation (R/D):

1 April 2002 - 31 March 2006

Partner Country's Implementing Organization(s): Ethiopian Roads Authority (ERA)
Alemgena Training and Testing Center (ATTC)

Supporting Organization(s) in Japan: Ministry of Land, Infrastructure and Transport

1-1 Background to the Project

Roads and bridges in Ethiopia remained in bad condition due to a prolonged civil war and the lack of maintenance, hindering the country's socio-economic development. To rectify the situation, the Ethiopian government identified road sector improvement as a priority in the field of national development and poverty reduction and launched the Road Sector Development Program (RSDP) for 1997-2007. An important target of RSDP was to train road engineers. Earlier in August 1995, the Ethiopian government made a request to the Japanese government for a technical cooperation project for the Alemgena Training and Testing Center (ATTC), an institution designed to develop human resources in road construction, construction work supervision, and civil engineering technology.

The Project supported the Ethiopian Roads Authority (ERA) and ATTC as the implementing agencies in three sections: (i) Equipment Operation for road construction; (ii) Trades & Crafts; and (iii) Civil Engineering. The project lasted for four years, from April 2002 through March 2006.

1-2 Project Overview

(1) Overall Goal

To meet the qualitative and quantitative needs for human resources in mechanized construction required for road construction and maintenance work in Ethiopia

(2) Project Purpose

To ensure that the ATTC delivers appropriate training for mechanized construction

(3) Outputs

1. An effective framework will be in place for training management.
2. Efficient training courses will be prepared.
3. Instructors will improve their technical skills and teaching capacity.
4. Training equipment and teaching materials will be prepared and managed appropriately.

(4) Inputs (until the time of evaluation)

Japanese side:

Long-term Experts: 5 experts (a chief advisor, a project coordinator, and three experts in construction equipment operation, construction equipment maintenance, and road maintenance)

Short-term Experts: 7 experts (a chief advisor, a project coordinator, and five experts in soil and asphalt testing, component diagnosis, workshop management, welding, and electric engineering)

Trainees received: 14 persons (additional two persons from November 2005)

Equipment: Equipment for Project: 427,750,000 yen; Equipment for Experts: 10,230,000 yen

Local activity expenses: 38,000,000 yen for the four-year period

Ethiopian side:

Counterparts and ATTC instructors: 40 persons in total

Local cost: 17,975,790 birr (or approx. 23.3 million yen) for the period of four years

Land and facilities: Facilities within ATTC

2. Evaluation Team

Members of the Evaluation Team

Team Leader: Yuichi SUGANO, Director, Transportation Team II, Group III, Social Development Department, JICA

Evaluation Planning: Momoko HOTTA, Transportation Team II, Group III, Social Development Department, JICA

Evaluation Analysis: Naoki TAKE, Manager, Economic Cooperation Department, Overseas Project Division, International Total Engineering Corporation (ITEC)

Period of Evaluation: 28 September 2005 - 12 October 2005

Type of Evaluation: Terminal Evaluation

3. Results of Evaluation

3-1 Achievement Level

a. Training management

Since 2003, ATTC has prepared its annual training programs and distributed them among the organizations concerned. This has resulted in an increase in the number of trainees at ATTC. Yet the number has remained at about 70 percent of the capacity due in part to delays in distributing the program and abrupt cancellations.

The procurement of supplies for training has been significantly improved due to the opening of a bank account, which allowed ATTC to buy them at its discretion.

b. Curriculum development

ATTC presented new curricula and syllabuses at the first Joint Coordination Committee in February 2003. Generally, they were implemented appropriately, except in the Civil Engineering Section.

c. Capacity of instructors

Many instructors in the two sections other than the Civil Engineering Section are largely satisfied with technical cooperation by Japanese experts.

d. Equipment maintenance

The chiefs of the Equipment Operation and Trades & Crafts sections are responsible for the maintenance of the equipment. The Project has developed several forms for equipment maintenance, which are used appropriately by the chief of the Equipment Operation Section.

e. Number of certificates

The table below shows the number of certificates issued by ATTC in each section.

Number of Certificates by Section

Section	Estimated total by end of March 2006 (A)	Target total (B)
Equipment Operation		
Trades and Crafts		
Civil Engineering		
Total		

Source: Project Office

NB: The figures for 2005/2006 represent the numbers of certificates issued between July and September 2005.

3-2 Summary of Evaluation Results

(1) Relevance

The Ethiopian Sustainable Development and Poverty Reduction Programme (SDPRP) have identified road sector improvement as the key to the socioeconomic development of the country. The Engineering Capacity Building Programme (ECBP) of the Ministry of Capacity Building (MoCAB) also covers human resources development in construction, especially in the private sector.

The Project has contributed to the development of human resources in the road sector by helping the improvement of ATTC, the only training institute in Ethiopia in the field of mechanized road construction.

(2) Effectiveness

The Evaluation Team has examined the effectiveness of the Project, focusing on the following six aspects:

a. The process of developing annual training programs and recruiting trainees

The head of ATTC and the section chiefs, as well as the Japanese experts are now involved in the process of developing annual training programs. They finalize the programs at least two months before the beginning of the fiscal year (July). Nevertheless, the current trainees represent only 70 percent of the capacity due in part to the postponement of some courses and many organizations cannot afford to send their employees to ATTC for training.

b. The process of developing and revising the curricula, and their usage

The Equipment Operation Section and the Trades & Crafts sections have completed the curricula, syllabuses, instructors' guidelines for their electricity courses through close collaboration between the Japanese experts and their Ethiopian counterparts. The Trades & Crafts Section has developed curricula for many other courses and even syllabuses for the equipment maintenance and advanced equipment maintenance courses. The curricula have not been updated since their introduction in 2003 largely because major changes to them have not been approved. It is necessary to assess and analyze the needs for training and reflect the results of these activities in the curriculum development process.

c. The process of developing and revise teaching/learning materials and their usage

The Project has enabled the Equipment Operation and Trades & Crafts sections to develop various teaching/learning materials. These materials are used appropriately. Those for the Civil Engineering Section have been brought from Japan but they are not used because they do not fit the local context. It is necessary for the Equipment Operation and Trades & Crafts sections to teach how to develop teaching/learning materials to the Civil Engineering Section, thus helping to ensure that the Ethiopian counterparts will develop their teaching/learning materials on their own.

d. Quality of instructors

The Evaluation Team has found that instructors at the Equipment Operation and Trades & Crafts sections are generally satisfied with Japan's technical cooperation. The head of ATTC acknowledges improvements in their teaching capacity and attitude toward their students. Technology transfer to the Civil Engineering Section has been conducted only with counterpart training of three instructors in Japan, not through experts from JICA.

The trainees are largely satisfied with their courses.

e. The system for maintaining equipment and procuring supplies

The Garage Unit of the Trades and Crafts Section is responsible for equipment repairs. The Equipment Operation Section monitors the condition of the equipment. The system for maintaining equipment and procuring supplies was significantly improved when the opening of a bank account allowed ATTC to procure supplies at its discretion. Earlier, ATTC had to obtain approval of the ERA, to which it reports to, for any case of procurement.

f. The number of certificates issued

The Evaluation Team expects that ATTC will achieve 74 percent of the target number of certificates issued by the end of March 2006. The projected achievement rate by sector shows 100 percent for the Equipment Operation Section, 70 percent for the Trades & Crafts Section, and 52 percent for the Civil Engineering Section.

(3) Efficiency

a. Expert assignment

JICA provided five experts for a long-term assignment and seven others for a short-term one. This expert assignment was appropriate in terms of both quantity and timing. Nevertheless, the assignment of a mechanical engineer to the Civil Engineering Section failed to make significant contribution to technology transfer to the section.

b. Equipment provision

Although the equipment is used appropriately in most cases, a few problems still remain. For example, the tire roller and the crane are rarely used. Also, the refrigerated ductility machines are difficult to repair in Ethiopia. These problems stem from the fact that the findings of the development study were not fully reflected in the process of planning the Project.

c. Counterpart training

The counterpart training in Japan largely allowed the participants to upgrade their skills.

(4) Impact

Because ATTC is the only training institute in the field of mechanized road construction, it is safe to assume that the number of graduates from ATTC almost matches the number of people trained in this field nationwide.

A survey shows that 94 percent of the executives of the organizations that have sent their employees to ATTC for training say their employees' skills have improved. This suggests that the Project has had a certain qualitative impact on the development of human resources for road construction in Ethiopia.

(5) Sustainability

a. Policy level

Human resources development remains a priority issue even in the Road Sector Development Program (RSDP) Phase III, which starts in 2007. As the private sector is playing an increasingly important role in road construction, the sector will likely need more construction equipment operators. ATTC has a bright future if it remains committed to providing training to meet such needs.

b. Financial level

The budget of ATTC continued to increase throughout the project period. The current budget is considered sufficient to ensure that the provided equipment is properly maintained.

c. Institutional level

As the initiative to develop annual training programs now rests with ATTC, the Evaluation Team concludes that ATTC will be able to formulate the program on its own after the project is completed. Improvements to the program may result in improvements to the process of recruiting trainees. Revising the curricula requires expertise. The responsibility for assessing training needs rests not with ATTC but with the Manpower Planning and Training Coordination Branch, Human Resource Development Division, ERA. This branch, however, may not be capable enough to revise the curricula on its own; it may need external experts, including university professors.

Revising the existing teaching/learning materials or developing new ones requires access to new technical information and continuous efforts by instructors to improve their skills. It is unclear whether ATTC will be able to revise them on its own because it has no experience.

The Evaluation Team concludes that the system for maintaining equipment and procuring supplies is sustainable enough.

d. Technical level

The Ethiopian counterparts have achieved a measure of success in developing their skills. Skills development at ATTC will be sustained if they share their acquired knowledge with others at the center.

3-3 Contributing Factors

(1) Concerning the implementation process

- Communication between the Japanese experts and the Ethiopian counterparts significantly improved halfway into the project period, enabling close collaboration between them notably in developing teaching/learning materials and curricula for the Equipment Operation Section.
- No counterpart has left his or her job at ATTC, ensuring the accumulation of transferred technology at the center.

3-4 Inhibiting Factors

(1) Concerning the project plan

- The Japanese and Ethiopian sides had different ideas as to the scope of the Project (in both the Trades & Crafts and Civil Engineering sections). A gap between the Japanese and English titles of the Project aggravated the situation.
- The Japanese side had an insufficient understanding of the role, responsibility, and authority of each of the Ethiopian organizations concerned.
- Sufficient action was not taken to address the issues that had been identified in the project consultation study and the mid-term evaluation study, including a low achievement rate regarding the number of trainees, which in turn required a revision to the target number in the Project Design Matrix (PDM), and insufficient transfer of technology to the Civil Engineering Section.

(2) Concerning the implementation process

- A mechanical engineer was selected and assigned to the Civil Engineering Section. This engineer had difficulty in providing the skills required by the Ethiopian side, contributing to insufficient communication between the Japanese experts and the Ethiopian counterparts.

3-5 Conclusions

The Project is heading toward a successful conclusion. The Equipment Operation and Trades & Crafts sections are expected to achieve their targets during the project period. There remains room for improvement for the Civil Engineering Section.

3-6 Recommendations

The Evaluation Team recommends that the Project take the following measures during the remaining six months in the project period:

- Institutionalize the development of annual training programs;

- Strive to complete the development of the curricula and teaching/learning materials, which are incomplete for some courses;
- Establishing a system for continuous upgrading of skills for the instructors; and
- Make effective use of the counterpart training (in training management), which will start in November 2005.

3-7 Lessons Learned

- *The scope of authority and responsibility of the counterpart organizations.* The Japanese side should have a full understanding of the role, responsibility, and authority of the counterpart (C/P) organizations before planning a cooperation project. It should ensure that the purpose and outputs of the project remain within their authority and responsibility.
- *Project design.* It is necessary to ensure that the project stakeholders from Japan and the partner country share a common understanding of the scope and activities of the project, as well as technical terms used in the Project.
- *Project Design Matrix (PDM).* It is necessary to ensure that the PDM clearly describes the scope of activity and the theories/indicators, and serves as a common basis for project management.
- *Selection of equipment.* Japan should select only the kind of equipment that would certainly be put to effective use in light of the situation in the partner country and the project activities.
- *Ownership by the partner country government.* The project activities should be within the scope of the original functions of the counterpart organization in order to ensure operational continuity (including budgetary support). For the purpose of sustainability, the Japanese side should preferably reduce the scope of its cooperation gradually.
- *Selection of Japanese experts.* In selecting experts to be assigned to the partner country, it is essential to ensure that their expertise matches that required by the partner country in order to ensure successful technology transfer.
- *Review and correction of the project plan.* The project consultation study and the mid-term evaluation study should identify implementation difficulties and make necessary changes to the project plan in a timely manner.