

Summary

Evaluation conducted by: Shinichi Mori

1. Outline of the Project	
Country: Ethiopia	Project title: Project for Capacity Building of the Alemgena Training and Testing Center of ERA
Issue/Sector: Transport/Traffic	Cooperation scheme: Technical Cooperation
Division in charge: Transportation and Communication Division 2, Economic Infrastructure Dept.	Total cost: Approx. 476 million yen
Period of Cooperation	(R/D): 4. 2002 – 3. 2006
	<p>Partner Country's Implementing Organization: Ethiopian Roads Authority (ERC) Alemgena Training and Testing Center (ATTC)</p> <p>Supporting Organization in Japan: Ministry of Land, Infrastructure, Transport and Tourism</p>
Related Cooperation	None
<p>1-1. Background of the Project</p> <p>Roads and bridges in Ethiopia have fallen into disrepair and remained in a dilapidated condition due to a prolonged civil war and a lack of maintenance, hindering the country's socio-economic development. To rectify this situation, the Ethiopian government identified road sector improvement as a priority in the national development and poverty reduction strategies and launched the Road Sector Development Program (RSDP) for the 1997-2007 period. An important target of RSDP was to train road sector engineers/technicians; 6,500 workers were expected to have been trained in the first five years. Although universities and technical schools have provided training for engineers and technicians in the road sector, the Alemgena Training and Testing Center (ATTC), a training arm of the Ethiopian Roads Authority (ERA), is the only public institute designed to develop human resources for construction, construction work supervision and civil engineering technology of high standard roads. Against this backdrop, the Ethiopian Government made a request to the Japanese Government for a technical cooperation project to support ATTC. The Project supported ERA and ATTC - the project's implementing agencies - in strengthening the capacity of ATTC for a period of four years, from April 2002 through March 2006.</p> <p>1-2. Project Overview</p> <p>The Project supported the strengthening of ATTC's three sections - (i) Equipment Operation for Road Construction; (ii) Trades & Crafts; and (iii) Civil Engineering – by improving its training management, curriculum and textbooks, and instructors' technical and teaching skills.</p> <p>(1) Overall Goal</p> <p>To meet the qualitative and quantitative needs for human resources in mechanized construction required for road construction and maintenance work in Ethiopia</p> <p>(2) Project Purpose</p> <p>To ensure that the ATTC delivers appropriate training for mechanized construction</p> <p>(3) Outputs</p> <ol style="list-style-type: none"> 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 (as of the Project's termination)

Japanese side:

Long-term Experts: 5 experts;

Short-term Experts: 7 experts;

Trainees received: 15 persons.

Equipment

Equipment for the Project: 427,750,000 yen;

Equipment for Experts: 10,230,000 yen;

Local activity expenses: 38,000,000 yen.

Ethiopian side:

Counterparts and ATTC instructors: 40 persons in total;

Local cost: 17,975,790 birr (approx. 23.3 million yen);

Land and facilities: Facilities within ATTC.

2. Evaluation Team

Members of Evaluation Team	Technical Training Evaluation: Shinichi Mori, President, IMG Inc.	
Period of Evaluation	9/12/2008 – 20/12/2008	Type of Evaluation : Ex-post

3. PROJECT PERFORMANCE

3-1. Performance of Project Purpose

According to the Project Design Matrix (PDM), the performance indicators adopted for the project purpose are “the improvement in the training ability of the three sections” and “the increase in the number of graduates”. The Ex-post Evaluation Team confirmed that training courses had been regularly conducted and trainees were mostly satisfied with the training using the new training equipment, curriculum and textbooks. On the other hand, the Team could not make any judgments on improvements in the instructors’ abilities due to a lack of objectively verifiable indicators. The number of trainees increased from 68 persons per annum in the first year of the Project to 664 in the final year of the Project. The Equipment Operation Section was accepting trainees beyond its capacity, while the occupancy rates for the Trades & Crafts and Civil Engineering Sections were 56% and 26% of capacity, respectively. Although new training courses for the Civil Engineering Section were launched during the Project period, this was mostly attributable to the provision of equipment and the efforts of Ethiopian instructors as no technology transfers from the Japanese long-term Expert to his counterpart personnel took place in this section. In reference to the performance assessment for the Project Purpose of ensuring “that the ATTC delivers appropriate training for mechanized construction”, in consideration of all of the above, *the Ex-post Evaluation Team concludes that there was significant improvement in the training skills and number of trainees in the Equipment Operation Section, and that training skills in the Trades and Crafts Section also improved although its courses were still operated below capacity. The Civil Engineering Section did not achieve its purpose since technology transfer from the Expert was rather limited and the number of trainees was small. As a result, the Project Purpose was partially achieved.*

3-2. Achievement related to Overall Goal

The performance indicators indicated in the PDM for the achievement of the Overall Goal are: (1) graduates’ occupation titles are changed, or graduates are promoted; and, (2) graduates fulfill the requirements for skilled labor. Since both of these indicators imply qualitative change, it was decided that the Ex-post Evaluation would use the number of ATTC’s graduates as a quantitative indicator. The Ex-post Evaluation Team confirmed that

most of the engineers/technicians trained in ATTC had been promoted in their organizations due to the upgrade of their skills. On the other hand, the number of trainees – quantitative indicator - averaged 650 per annum in the past five years (2003/04 – 2007/08), which implies that ATTC has been greatly contributing to the human resource development in the road construction sector. While the number of trainees in the Equipment Operation Section exceeds its capacity, the occupancy rates for Trades and Crafts Section and Civil Engineering Section averaged 56% and 26% of capacity, respectively, during the same period. It can be concluded that the overall goal of the Project is assessed to have been partially achieved; although the quality and quantity of training has been improving in the three sections, the achievement in the Civil Engineering Section is not attributable to the technology transfer of the Project.

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

Although the Terminal Evaluation Study recommended that ATTC revise its annual training program annually, ATTC has continued using the same program without alteration, saying that the program was appropriate in that current form for responding to the training needs of the State. It was also recommended that ATTC continuously revise curriculum and textbooks; it was observed by the Ex-post Evaluation Team that this had been carried out by ATTC's instructors. Capacity development of the instructors through a mutual exchange of experiences was also recommended; this had also been implemented through instructors' daily meetings. Utilization of knowledge obtained through the training in Japan was also recommended; although the trainees of ATTC and ERA prepared action plans to improve training management and shared them with ATTC's management, no particular action had been taken.

4. Results of Evaluation

4-1. Summary of Evaluation Results

(1) Relevance Human resource development in the road construction sector was given priority in the national development program; as a result, there has been an imminent need to train a large number of engineers/technicians in order to continue constructing and maintaining the country's road network. As such, the Project is highly relevant to the national development program as well as to the needs of the nation. Moreover, since ATTC is the only institute that provides training for the mechanized road construction technology required by ERA, it was essential to support ATTC.

(2) Effectiveness

Taking into consideration the improvement of ATTC's training skills and the differing number of graduates and levels of technology transfer by Japanese Experts between ATTC's sections, the Ex-post Evaluation Team has determined *that there was significant improvement in the training skills and number of trainees in the Equipment Operation Section, and that training skills in the Trades and Crafts Section also improved although its courses were still operated below capacity. The Civil Engineering Section did not achieve its purpose since technology transfer from the Expert was rather limited and the number of trainees was small. As a result, the Project Purpose was assessed to have been partially achieved.*

(3) Efficiency

It was confirmed that most of the equipment provided by the Project had been properly utilized, and that the C/P training in Japan was fruitful. However, since the long-term Expert in the Civil Engineering Section sent by JICA did not have sufficient knowledge of highway engineering, technology transfer in this section did not materialize. Although the mid-term evaluation mission identified this problem, no remedial measures were taken, and thus, very little achievement was made in this field. In addition, it should be noted that ATTC repeatedly emphasized to the Ex-post Evaluation Team that the communication gap between the first chief advisor and ATTC had led to the stagnation of project activities during the first two years.

(4) Impact

It is concluded that the overall goal of the Project is assessed to have been only partially achieved; although the quality and quantity of training has been improving in the three sections, the achievement in the Civil Engineering Section is not attributable to the technology transfer of the Project. From this perspective, the overall goal of the project was assessed to have been partially achieved.

Many of ATTC's ex-trainees in ERA left the authority within a short period of time after the training in order to obtain higher salaries through work in private construction companies. This movement should be considered as a positive indirect impact to the private sector that is suffering from a serious shortage of skilled labor.

(5) Sustainability

Ethiopia's second poverty reduction paper emphasizes the importance of road construction, while the Road Sector Development Program is being implemented until 2012 under the financial support of donor agencies. These require continuous training of a large number of road engineers/technicians, which implies that policy sustainability is ensured for ATTC. Considering that ERA's financial support to ATTC is stable while instructors are revising textbooks on their own, ATTC's financial and technical sustainability is judged to be adequate, although ATTC is facing difficulties in procuring some of the spare parts and replacing old equipment due to the country's lack of foreign currency (it should be noted, however, that the technical sustainability of the Civil Engineering Section has been attained by Ethiopian instructors' own efforts, not by Japanese experts).

In summary, ATTC's total training capacity to serve the road construction sector's needs has been improved by the Project while its financial sustainability is guaranteed by the Government. In order for ATTC to provide services at higher levels to a larger number of trainees as well as to respond to the training needs of the private sector, a long-term strategy, including ATTC's commercialization, will need to be established by a higher-level authority.

4-2. Factors that have promoted project

(1) Impact

ERA has been implementing the Road Sector Development Program under donors' financial support, as a result of which the demand in human resources in the road construction sector is rapidly increasing. This has contributed to an increase in the number of ATTC's trainees.

(2) Sustainability

ATTC's fiscal stability is ensured since it is a training arm of ERA that has an abundant budget for road construction. ATTC's instructors obtained various catalogues and instruction manuals in road construction through their training in Japan. Japanese experts also collected and brought useful documents to ATTC. By using these materials, ATTC's instructors have been updating teaching materials and textbooks by themselves, which is contributing to ATTC's technical sustainability.

4-3. Factors that have inhibited project

(1) Impact

Due to the shortage of foreign currency in Ethiopia, ATTC has faced difficulties in procuring some of the necessary spare parts; ATTC was obliged to suspend some of the training courses until the spare parts were imported. It is a problem at the national level, and beyond ATTC's control.

(2) Sustainability

While ATTC's status as a governmental organization is contributing to its fiscal stability, it does, at the same time, lead to a lack of motivation towards conducting needs surveys, improving curriculum, and increasing the number of trainees. Moreover, ATTC is enjoying a monopoly in training for mechanized road construction; absence of competition is also a cause of the lack of motivation.

4-4. Conclusions

With regard to the performance of the Project Purpose, the Ex-post Evaluation Team has concluded that *there was significant improvement in the training skills and number of trainees in the Equipment Operation Section,*

and that training skills in the Trades and Crafts Section also improved although its courses were still operated below capacity. The Civil Engineering Section did not achieve its purpose since technology transfer from the Expert was rather limited and the number of trainees was small. As a result, the Project Purpose was assessed to have been partially achieved.

The Overall Goal was assessed to have been partially achieved; although the quality and quantity of training has been improving in the three sections, the achievement in the Civil Engineering Section is not attributable to the technology transfer of the Project. Many of ATTC's ex-trainees in ERA left the authority in a short period of time after the training in order to work in private construction companies; this is a positive indirect impact to the private sector that is suffering from a serious shortage of skilled labor. Considering that ERA's financial support to ATTC is stable while instructors are revising textbooks on their own, ATTC's financial and technical sustainability is judged to be adequate, although ATTC is facing difficulties in procuring some of the spare parts and renewing equipment due to the country's lack of foreign currency. In order for ATTC to provide services of at higher levels to a larger number of trainees, as well as to respond to the training needs of the private sector, a long-term strategy, including ATTC's commercialization, will need to be established by a higher-level authority.

4-5. Recommendations

Since ATTC's instructors have basic skills and teaching ability, and they are willing to obtain new technologies, it is recommendable that JICA's on-going project Capacity Development Project on Bridge Management conduct Training of Trainers (TOT) for ATTC's instructors so that bridge maintenance techniques become one of ATTC's training courses in the future.

Since ATTC is facing difficulties in procuring spare parts and replacing old equipment due to the lack of foreign currency in Ethiopia, consideration should be put into the possibility of the Japanese Government supporting ATTC by using its "Balance of Payment" support schemes, such as the non-project type grant aid, or through JICA's project follow-up scheme. The Ex-post Evaluation Team suggested to ATTC that a needs assessment survey be conducted and that the curriculum be revised based on the results of the survey. It was also suggested that ATTC forecast the "no show" of participants when recruiting trainees and try to increase the occupancy rate, and that ATTC increase the number of trainees for Trades & Crafts Section and Civil Engineering Section courses by disseminating more detailed information about the courses to its potential participants.

4-6. Lessons Learned

JICA should pay more attention to the recruitment procedures of experts, the monitoring of their work, and the identification of problems and adoption of appropriate measures in a timely manner.

No monitoring method was applied to the Project for assessing the progress of instructors' capacity development. A monitoring method such as "Management by Objectives and Self-Control" should be introduced in capacity development projects of this type in which an evaluation format is prepared and the progress of technology transfer is evaluated regularly by C/P, C/P head and JICA Experts.