

Overview of Terminal Evaluation Survey Results

<b>I. Outline of the Project</b>	
<b>Country :</b> Kingdom of Saudi Arabia	<b>Project title :</b> Development and Training Center Project
<b>Issue/Sector :</b> Technical and Vocational Education and Training	<b>Cooperation scheme :</b> Technical cooperation project
<b>Division in charge :</b> Human Development Dept., Group 2	<b>Total cost :</b> 450 million JPY
<b>Period of Cooperation (R/D):</b> Sep. 1, 2004 to Aug. 31, 2007 Sep. 1, 2004	<b>Partner Country's Implementing Organization :</b> General Organization for Technical Education and Vocational Training (GOTEVOT), Development and Training Center (DTC)
	<b>Supporting Organization in Japan :</b> Ministry of Education, Culture, Sports, Science and Technology
<b>Related Cooperation :</b> Technical Electronics Institute in Riyadh (1989-1996) Improvement of Technical Education of Electronics in the College of Technology in Riyadh (1997-2001) Electronic Education Development Center (1998-2001)	
<b>1-1 Background of the Project</b> <p>With a national policy to encourage employment of Saudi nationals (Saudization), College of Technology in charge of human resources development of Saudis have increased rapidly in the country. Thus, it has become an urgent need to improve teachers of such colleges in quality and quantity.</p> <p>This project aims to improve the abilities of instructors to conduct training in the fields of mechanical, electrical and construction technology at the Development and Training Center (D&amp;T center) that provides in-service training to the teachers of College of Technology in order to promote Saudization.</p>	
<b>1-2 Project Overview</b>	
<b>(1) Overall Goal</b> <p>Colleges of Technology in the Kingdom can produce students who are equipped with the required technical level of industries in the fields of mechanical, electrical and construction technologies.</p>	
<b>(2) Project Purpose</b> <p>Training capabilities of the instructors of Development and Training Center are improved in the above mentioned fields.</p>	
<b>(3) Outputs</b>	
(i) The technological level of the college teachers and skill level necessary for industries in the target fields are identified.	
(ii) The training programs for the college teachers are developed.	
(iii) The training system for the college teachers are developed and implemented.	

(iv) The Operational system of the D&T center for training programs in the above mentioned fields are established.

**(4) Inputs (at evaluation)**

**Japanese side :**

**Long-term Expert:** 5, total of 108.1M/M      **Equipment:** 102.923 million JPY

**Short-term Expert:** 10, total of 8.1M/M      **Local cost:** 13.536 million JPY

**Trainees received:** 12 in Japan, 4 in Malaysia, 4 in Indonesia, and 2 in UAE

**Saudi Arabia Side :**

**Counterpart:** 14

**Land and Facilities:** Office, laboratory, classroom experts' office

**Management expenses:** Approx. 46.816 million JPY

**Equipment:** Office equipment, training equipment, vehicles, etc.

**2. Evaluation Team**

<p><b>Members of Evaluation Team</b></p>	<p>(Assignment: Name and title)</p> <p>Leader: Motoharu Watanabe, Team Director, Technical and Higher Education Team, Group 2, Human Development Dept., JICA</p> <p>Administration of Technical and Vocational Education: Shigeru Ikemori, Senior Specialist for Curriculum, Vocational Education and Information Technology Education Division, Elementary and Secondary Education Bureau, Ministry of Education, Culture, Sports, Science and Technology</p> <p>Cooperation Planning: Takao Maruyama, Technical and Higher Education Team, Group 2, Human Development Dept., JICA</p> <p>Project Evaluation Analysis: Michiyuki Kemmotsu, Overseas Project Dept., Chuo Kaihatsu Corp.</p>	
<p><b>Period of Evaluation</b></p>	<p>Feb. 23, 2007- Mar. 8, 2007</p>	<p><b>Type of Evaluation :</b> Terminal</p>

**3. Results of Evaluation**

**3-1 Summary of Evaluation Results**

Questionnaire surveys, interviews and workshop were conducted to collect opinions of involved parties and achievements in data in order to analyze the inputs, outputs and the achievement level of Project Purpose.

Originally, three long-term experts, one each in mechanical, electrical and construction technologies, as well as three short-term experts every year were planned to be dispatched. However, because of the difficulty to recruit experts and declination of potential long-term experts due to temporary deterioration of public safety in 2004, long-term experts in mechanical and construction technologies were absent for some periods. Instead, short-term experts were dispatched to continue the activities. On the Saudi side, counterparts were allocated although they had some shortages in the number and capacity, as well as the

preparation of facilities, procurement of equipment and securement of management budget.

In regard to Output 1, the curriculum and technical levels of the target Colleges of Technology were analyzed and the training contents were revised. As a result of these activities, it was concluded that Output 1 was achieved in general. Output 2 was also achieved to some degree as training courses were developed and teaching materials were prepared for mechanical, electrical and construction technologies. Output 3 is still in progress—efforts have been made to improve technical levels of counterparts and seminars on teaching methodologies have been provided. We can conclude that it is accomplished to some degree through the implementation of training courses that are planned to open in series from April 2007. Regarding Output 4, some challenges had to be cleared to establish an operational system of D&T center, although the equipment maintenance and safety management were carried out sufficiently at present.

Technical levels of D&T center instructors in the fields of mechanical, electrical and construction technologies were improving. Development of training courses and teaching materials for teachers of College of Technology has been partially completed. In the electrical technology field, PLC (LOGO, STEP7) and factory automation training courses are slated to be provided in April 2007. In the mechanical technology field, laser cutting is planned to be introduced in March 2007. Several training courses are planned to be conducted in each field by the end of August 2007, the completion of the project. Judging from these, it is fair to say that the project purpose, "training capabilities of the instructors of Development and Training Center are improved in the fields of mechanical, electrical and construction technologies" is accomplished to some degree by the time when the project is completed.

### **3-2 Summary of Evaluation Results**

#### **(1) Relevance**

The project is highly relevant for the following reasons:

The Saudi government built an increasing number of Colleges of Technology under the Saudization policy. Providing in-service training for teachers at such colleges to improve their abilities to help produce their graduates with capacity demanded by the industry matches the national development policy.

Promotion of human resources development and Saudization is one of the priority issues in JICA Country Program for Saudi Arabia.

Many of the teachers of such colleges are doctoral or master's degree holders. Although they have good theoretical expertise knowledge, many teachers lack in practical experiences and are not familiar with the actual situation of the industrial field. The training course of the project is appropriate as it is mainly for training of technologies actually used in the industrial arena.

#### **(2) Effectiveness**

Although the project had some outputs such as improvement of technical levels of D&T center instructors, development of training courses and teaching materials, it seems difficult to achieve the project purpose to a sufficient level within the cooperation period.

When the survey was conducted, short-term experts (teaching methodology) had held seminar for 30

teachers of College of Technology and training on electrical and mechanical technologies was also planned to open after April and March, respectively. Thus, it is fair to say that the project purpose is achieved to some degree.

### **(3) Efficiency**

Although dispatch of long-term experts in the fields of mechanical and construction technologies was behind the schedule, alternative measures were taken by utilizing local resources and dispatching short-term experts. Although equipment was also provided later than originally planned, locally-available resources and equipment were used for technical training in electrical technology.

Because experts and equipment were provided by Japanese side as originally planned, the project seems to be carried out efficiently.

### **(4) Impact**

The project yielded some fruit as the technical levels of D&T center instructors were improved and training courses and teaching materials were developed. Training on electrical and mechanical technologies is slated to begin after April and March, respectively. It is too early to evaluate whether the overall goal is achieved or this project had any impact, because the achievement level of the project purpose was still partial when the project was evaluated. However, it is reasonable to say that the path to the achievement of the overall goal is secured if the abilities of teachers of College of Technology improve through the original project period and envisioned extension period.

### **(5) Sustainability**

Although sustainability of the project is expected for the following reasons, it is necessary to establish and enhance a system to conduct training for teachers of College of Technology:

- a. The Saudization policy is one of Saudi's priority issues and it is expected to be continued.
- b. Because the GOTEVOT has high organizational capacity and its budget is increasing, training courses for such college teachers will be maintained if once started.

### **3-3 Factors that promoted realization of effects**

One of Saudi's counterparts was a counterpart in the Technical Electronics Institute in Riyadh project and thus very familiar with Japan's technical cooperation. This contributed to the progress of the project.

### **3-4 Factors that impeded realization of effects**

#### **(1) Progress**

Because of the difficulty to recruit experts and declination of potential long-term experts due to temporary deterioration of public safety in 2004, long-term experts in mechanical and construction technologies were dispatched later than originally scheduled and the project was behind the schedule. When it is difficult to allocate long-term experts, local resources were used and short-term experts carried

out the project. In the field of mechanical technology, technical instructions from local agents of manufacturers and CAD vocational schools were utilized and short-term experts were dispatched. In the construction technology field, short-term experts were dispatched and CAD vocational schools were utilized.

Procurement of equipment provided by Japanese side required time, which also affected the project. In electrical technology, locally-available resources and equipment were used for technical training.

## **(2) Counterpart**

Although counterparts who were able to understand English were to be allocated in R/D signed in September 2004, those with insufficient English proficiency and academic qualifications were allocated as counterparts in reality. As a result, technical transfer from experts to counterparts took more time than originally expected.

## **(3) Management system of Center**

Management committee meetings were held only twice. The committee meeting should be held regularly and the management system of the Center needs to be enhanced for proper progress of the project.

## **3-5 Conclusion**

This project contributes to Saudi's priority issues and its Saudization policy and thus it is highly relevant. It has improved technical levels of D&T center instructors and developed training courses and teaching materials. In-service training programs for teachers of College of Technology are to open in series. However, due to delay in dispatch of long-term experts, procurement of the equipment and insufficient English proficiency and academic qualifications of some D&T center instructors, the progress of the project took more time than originally expected. As a result, it is difficult to achieve the project purpose to a satisfying level by the end of the project (end of August 2007).

## **3-6 Recommendations (specific measures, suggestions and advice)**

Based on the survey result, the following recommendations were made as agreements between Japanese and Saudi sides.

- (1) The goal of the Project aims that D&T center provides advanced practical training courses to technical college teachers. Project period should be extended until the end of December, 2008 for the electrical technology field, and until the end of March 2009 for the mechanical technology field and construction technology field, to achieve the goal.
- (2) The Project is the joint work of both parties, and the mutual communication and sharing of understanding shall be promoted to achieve the Project Purpose.
- (3) Because counterparts were in short for a certain period, Saudi Arabian side shall make stable assignment of their counterparts,
- (4) Saudi side shall immediately provide equipment and facilities necessary to open training courses.

- (5) Actual implementation of the training program for college teachers should be carried out as soon as possible, using outside resources in certain cases.
- (6) The training opportunities for C/Ps of construction technology should be facilitated. With this regards, Saudi Arabian side agrees to support such activities, for example finding proper local resources.
- (7) Operational Management Board shall have regular monthly meetings. Equipment Management Board (EMB) and Safe Operating Board (SOB) should be established.

### **3-7 Follow-up Situation**

It is judged that this project needs to be extended until the end of December 2008 in the electrical technology field and until the end of March 2009 in the fields of mechanical and construction technologies in order to achieve the project purpose.

