

# Terminal Evaluation

## Asia

### 1. Outline of the Project

**Country:**

Indonesia

**Project title:**

Telecommunications Outside Plant Construction Supervisory

**Issue/Sector:**

Telecommunications

**Cooperation scheme:**

Third-Country Training Program

**Division in charge:**

Southeast Asia Division, Regional Department I

**Total cost:**

**Period of Cooperation** Fiscal year 1998 - 2002

**Partner Country's Implementing Organization:**

Education and Training Center of PT. TELKOMUNIKASI INDONESIA (PT. TELKOM)

**Supporting Organization in Japan:**

NTT

**Related Cooperation:**

Project-type Technical Cooperation: "The Telephone Outside Plant Construction Center Project in Indonesia"

#### 1-1 Background of the Project

The government of Republic of Indonesia planned to add one million lines a year and five million lines in five years in total for the development of the telecommunications network in "the 6th Five-Year National Development Plan". In response to this plan, the government of Japan implemented Project-type Technical Cooperation: "The Telephone Outside Plant Construction Center Project in Indonesia" (1994 - 1998) to the TELKOMUNIKASI INDONESIA (PT. TELKOM). That cooperation was aimed at training instructors who could manage workers in the upkeep of works and improvement of the telecommunications line construction work.

Against this background of circumstances, the government of Indonesia requested the government of Japan to provide the technical cooperation. In response, the government of Japan planned implementation of the Third-country Training Program at the PT. TELKOM to improve the quality of telecommunications line construction skills and management in the neighboring countries of Indonesia who held outside telecommunications lines similar to Indonesia.

#### 1-2 Project Overview

The Project implemented the Third-country Training Program on Telecommunications Outside Plant Construction Supervisory at the PT. TELKOM for the participants from countries in Asia, Oceania, Africa and the Middle East. The Project aimed to create versatile supervisors who could contribute to the significant expansion of a high quality network through instruction to constructors from both a technical and managerial point of view.

##### (1) Overall Goal

- 1) Improvement of telecommunications skill and knowledge in participating countries.
- 2) Improvement of the implementing Organization's capability of technology transfer in PT. TELKOM.

##### (2) Project Purpose

To foster high quality supervisors/instructors in the technical and management aspects of outside-plant construction, and to facilitate the exchange of information to solve the problems in the participating countries.

### (3) Outputs

- 1) Participants understand the technical knowledge, such as transmission theory and structural dynamics, which is necessary for supervisors.
- 2) Participants understand the key points of how to improve the quality of both metallic and optic fiber cable construction.
- 3) Participants acquire knowledge of the design, construction and maintain the construction of telecommunications lines.
- 4) Participants become able to manage and supervise construction projects.
- 5) Participant acquires instruction and training management skills and are able to can take the appropriate action as needed.

### (4) Inputs

Japanese side:

Long-term Experts	8
Local Cost	50 Million Yen

Indonesian side:

Counterparts	85
Local Cost	1 Million Yen

### (5) Participant Countries

Bhutan, Cambodia, China, Laos, Maldives, Mongolia, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Vietnam, Fiji, Federated States of Micronesia, Papua New Guinea, Samoa, Ethiopia, Kenya, Malawi, Tanzania, Zimbabwe, Egypt, Hashemite Kingdom of Jordan, Syria and Indonesia.

## 2. Evaluation Team

**Members of Evaluation Team** JICA Indonesia office  
(Commissioned to: PT. INDOKOEI INTERNATIONAL)

**Period of Evaluation** February 2002 - March 2002      **Type of Evaluation:** Terminal Evaluation by Overseas Offices

## 3. Results of Evaluation

### 3-1 Summary of Evaluation Results

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#### (1) Relevance

Based on the answers to the questionnaire survey to the participants at the termination of the Training and at the time after the participants had returned home (seven participants responded), the content of the training course came up to their expectations and was consistent with the policy of their country (to improve telecommunications lines and to upgrade the efficiency of information transfer). The climate and the condition of telecommunications lines installation in Indonesia were similar to those of the participating countries, therefore it was possible to apply the skills they acquired thorough the course in the work upon returning home. Judging from the above, this training course has relevancy.

#### (2) Effectiveness

Based on the answers to the questionnaire survey to participants after returning home, participants said that they understood the knowledge and the skill taught in the training course fairly well, and that they served them well at their workplace. Also, based on the results of achievement tests which participants took several times during the training period, almost all participants improved their scores, and said they were satisfied with the information exchange of the skills and knowledge acquired during the training period and the applicability of these in their work.

### (3) Efficiency

The project was implemented as planned in terms of budget, schedule curriculum and number of participants. The ability and teaching methods of experts, textbooks and equipment are all sufficient and contributed to the understanding of participants. Based on the answers to the questionnaire survey to the participants at the termination of the Training in 2001, half of the respondents said that the training coverage, level and time allocation had been appropriate. Judging from the above, the training program (lectures, country report, study tour, practices, panel discussion and observation) was effectively implemented.

### (4) Impact

A benefit to the organizations where the ex-participants work was that they now had trained personnel in the field of Telecommunications outside Plant Constructions Supervisory. Other benefits of the course include improved telecommunications technology and monitoring system for telecommunications construction lines and improved services.

### (5) Sustainability

The ex-participants disseminated the knowledge and skills acquired through the course by conducting seminars, making reports and workshops after returning to their country. Some issues were tackled by utilizing the knowledge and skills acquired through the course such as construction and instillation of Optic fiber; proper distribution of lines (planning) and safety management. But the ex-participants had some problems in utilizing the knowledge and skills due to a lack of equipment and funds. On the other hand, according to the PT. TELKOM, there would be no problem in recruiting experts, preparing facilities, setting up equipment and organizing the appropriate curriculum.

## **3-2 Factors that promoted realization of effects**

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### (1) Factors concerning Planning

N/A

### (2) Factors concerning the Implementation Process

PT. TELKOM had sufficient knowledge and experience to implement the training course including the preparation of textbooks and curriculum. The cultural, social and technical similarities among Indonesia and participating countries made it easy for participants to acquire the necessary skills.

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

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### (1) Factors concerning Planning

N/A

### (2) Factors concerning the Implementation Process

Lectures were given in the local language, and the Japanese experts faces significant problems in conveying information during the training

## **3-4 Conclusion**

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The Project produced good results and was managed efficiently and effectively. Ex-participants from many countries have made efforts to disseminate their skills and knowledge through seminars, training students at schools and exchanging information with colleagues.

## **3-5 Recommendations**

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(1) The Implementing Organization should understand the technical standards applied in the participants' countries and the International Technical Standards.

(2) The Implementing Organization should maintain close contact with all participants to monitor how the skills and technology are being disseminated.

(3) The training content can be extended not only to telecommunications construction, but also to other fields of Telecommunications technology.

(4) The Government of Japan should continuously support this kind of training program since it is important to improve the skills in telecommunications plant construction supervisory.

**3-6 Lessons Learned**

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N/A

**3-7 Follow-up Situation**

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