

# The Project to Enhance Education and Training of Industrial Safety and Health



Project Sites Jakarta

## 1. Background of Project

In Indonesia, along with the rapid economic growth, the incidence of industrial accidents more than doubled over the six years since the second half of the 1980s, and urgent measures are required. The 6th Five-Year National Development Plan which started in 1994 aimed for further industrial prosperity. As the country faces rapid industrialization and corporate activities, along with the implementation of the plan, industrial accidents will increase unless suitable measures are taken. To cope with this situation, the Government of Indonesia made a request to Japan for technical cooperation aiming to strengthen and expand safety and health education for industrial employers and workers.

## 2. Project Overview

### (1) Period of Cooperation

15 November 1995 – 14 November 2000

### (2) Type of Cooperation

Project-type Technical Cooperation

### (3) Partner Country's Implementing Organization

Directorate General for Industrial Relations and Labor Standards, Ministry of Manpower

### (4) Narrative Summary

#### 1) Overall Goal

The level of industrial safety and health education and training for workers and employers is enhanced in Indonesia through improvement in awareness and skills.

#### 2) Project Purpose

New or improved industrial safety and health education and training model courses for instructors, experts, workers, managers and employers are conducted.

#### 3) Outputs

- a) The Industrial Safety and Health Education and Training Center was established.
- b) Counterpart personnel who conduct industrial safety and health education and training courses were trained.

## 4) Inputs

### Japanese Side

Long-term experts	9
Short-term experts	18
Trainees received	18
Equipment	299 million yen
Local cost	26 million yen

### Indonesian Side

Counterparts	33
Local cost	4.076 billion rupiahs (approx. 44 million yen)
Land and facilities (incl. construction of the Industrial Safety and Health Education and Training Center)	

## 3. Members of Evaluation Team

### Team Leader:

Motoshige SASAKI, Director of International Office, Industrial Safety and Health Department, Labor Standards Bureau, Ministry of Labor

### Industrial Safety:

Hitoshi TAKAMURA, Central Expert Officer, Safety Division, Industrial Safety and Health Department, Labor Standards Bureau, Ministry of Labor

### Industrial Health

Noriyoshi SHINOZAKI, Central Expert Officer, Industrial Health Division, Industrial Safety and Health Department, Labor Standards Bureau, Ministry of Labor

### Evaluation and Cooperation:

Satoshi UMEKI, First Technical Cooperation Division, Social Development Cooperation Department, JICA

### Evaluation Analysis:

Kunio NISHIMURA, CRC Overseas Cooperation Inc.

## 4. Period of Evaluation

29 May 2000 – 9 June 2000

## 5. Results of Evaluation

### (1) Relevance

Before the economic crisis, labor protection measures

had not been able to catch up with the rapid economic growth, triggering frequent industrial accidents and occupational diseases. After the crisis, employers then paid less interest to labor protection due to the reduction of their industrial activities. On the other hand, the 6th Five-Year National Development Plan announced the importance of labor protection and welfare policy to improve working conditions.

Considering the present state and needs of workers in the working environment, and what the national policy is aiming at, this project focusing on industrial safety and health education is relevant.

## (2) Effectiveness

The construction by Indonesian side of the Industrial Safety and Health Education and Training Center was delayed due to the unexpected economic crisis (1997) and social disorder (change of regime in 1998.) However, even during the delay, technical transfer from Japanese experts to the counterpart personnel continued. In addition, the Indonesian side voluntarily established training courses as well as for the subjects not included in the initial project plan in 2000. Teaching materials supplied also were utilized effectively. Consequently, it could be judged that the project purpose was satisfied by the implementation of the courses.

## (3) Efficiency

Since the establishment of the Center, training courses have been enforced, and the equipment supplied from Japan has been utilized effectively. Research and technology transfer were done in various areas in a short period. Preparation of curriculums and textbooks, implementation and evaluation of training courses were also efficiently done as originally planned.

Although there were some transfers of the counterparts and delay of maintenance budget in Indonesian inputs, the scale and timing of inputs from both Japan and Indonesia were as planned on the whole.

## (4) Impact

Knowledge and technology concerning labor safety and health such as the needs survey, textbook development and terminal and ex-post training evaluation training were transferred and accumulated to the counterpart and the Center. According to the follow-up survey to ex-participants the training courses, most of them (77%) answered that the courses were useful for preventing industrial accidents and occupational diseases in the workplace. Thus it can be said that the courses have contributed to improving the situation of labor safety and health.

## (5) Sustainability

Through this project, technology transfer to the counterpart staff has progressed, and management and technical staff were trained. Therefore it can be judged that the management system has become stable. It is further required that many of the counterparts whom had received technology transfer remain in the Center.

At the point of the terminal evaluation, the legal status of the Center, which has been the matter of concern since the start of the project, had not yet been decided. As the Center mapped out a plan for an establishment of a joint



Lecture on mobile crane course

venture with a third-party organization, immediate decisions have to be made. According to the Indonesian side, mutual agreement was made between the Ministry of Labor and the third-party organization in September 1999, and 90% of the arrangements for the signing of the memorandum scheduled September 2000 have been made. It can be surmised that management know-how will unite and improve the operational management capability of both organizations by establishment of this joint venture.

## 6. Lessons Learned and Recommendations

### (1) Lessons Learned

Completion of the Centers construction was delayed due to external conditions. In future projects, well-thought-out preparation is required to avoid having harmful influence on the project.

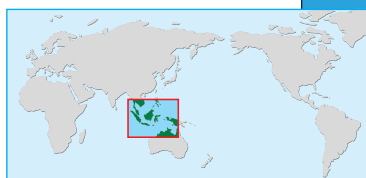
### (2) Recommendations

Presently, the Center is concurrently managed by Japanese experts and Indonesian safety and health staff, but the legal and institutional status has not been clarified. In order to maintain the current operation, clarification of the status and formation of a responsible body for operation should be considered as soon as possible.

Toward the end of the project, both Japanese and Indonesian sides are required to note the following recommendations.

- 1) Statistics on industrial accidents and occupational diseases should be compiled.
- 2) Similar organizations that are carrying out labor safety and health education should be found.
- 3) A self-sufficient source to stabilize the management and operation should be considered.

# The Quality Soybean Seed Multiplication and Training Project



Project Sites East Java

## 1. Background of Project

The agricultural sector was stressed as an important sector in the Fifth National Development Plan for Indonesia (1989/90 – 1993/94), which points out crop productivity improvement and attainment of food self-sufficiency as its main policies. In this plan, the emphasis was put on corn, soybean and cassava in addition to rice, which once attained self-support in 1984. However, the government of Indonesia still has to import 500-600 thousand tons of soybeans a year, which is equal to 20-30% of the domestic demand.

The Government mentioned the significant factors that restricted the development of soybean production as follows: 1) the seeds are low in quality such as low germination rates; 2) inability to supply high quality seeds in accordance with the increase of cultivation areas.

Based on the above-mentioned background, the government of Indonesia requested grant aid, "Multiplication and Distribution of High Quality Soybean Seeds," and project-type technical cooperation to the Government of Japan for the purpose of improving farmers' skills, as well as establishing and developing a system and technology of multiplication, inspection and distribution of high quality soybean seeds in East Java where 40% of soybean production is conducted.

## 2. Project Overview

### (1) Period of Cooperation

1 July 1996 – 30 June 2001

### (2) Type of Cooperation

Project-type Technical Cooperation

### (3) Partner Country's Implementing Organization

Directorate General of Food Crops Production, Ministry of Agriculture

## (4) Narrative Summary

### 1) Overall Goal

The production of soybeans is increased in East Java.

### 2) Project Purpose

The multiplication system of high quality soybean seeds is strengthened in East Java.

### 3) Outputs

- a) High quality seeds are produced.
- b) Technical skills of seed production and management are improved.
- c) Technical skills of seed inspection are improved.
- d) The training system is strengthened.

### 4) Inputs

#### Japanese Side

Long-term experts	8
Short-term experts	8
Trainees received	17
Equipment	100 million yen
Local cost	37 million yen

#### Indonesian Side

Counterparts	15
Land and facilities	
Local cost	1.95 billion rupiah (Approx. 23 million yen)

## 3. Members of Evaluation Team

### Team Leader/Seed Production:

Nobufumi NOMURA, Novartis Agro K.K.

### Seed Inspection:

Hisashi GOTO, Crop Production Division, Agriculture Production Bureau, Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF)

### Training/Agricultural Administration Cooperation:

Kotaro OMAE, Technical Cooperation Division, International Affairs Department, General Food Policy Bureau, Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF)

**Plan Evaluation:**

Satoshi FUJII, Deputy Director, Agricultural Technical Cooperation Division, Agricultural Development Cooperation Department, JICA

**Evaluation Analysis:**

Hiroshi HASEGAWA, Unico International Corporation

**4. Period of Evaluation**

7 January 2001 – 20 January 2001

**5. Results of Evaluation****(1) Relevance**

In the guideline of Policy and Strategy of Agricultural Development in Indonesia <sup>1)</sup>, the Government has given high priority to soybeans as one of the most important crops next to rice. Indonesia imported about 1.3 million tons of soybeans to meet the domestic demand of about 2.68 million tons in 1999. The domestic demand for soybeans in Indonesia has been stable since the Indonesian people have traditionally soybean products like tempe.

Consequently, the project purpose of strengthening the multiplication system of high quality soybean seeds in East Java can be considered to be relevant throughout the project.

**(2) Effectiveness**

The rate of high quality soybean seeds for reproduction has been raised from 0.8% at the beginning of the project to 1.6% at present. This result comes from the fact that the technical transfer on seed production and seed inspection has almost been completed, and high quality soybean seeds have been acknowledged among seed growers. The project can be considered to be effective with regard to achievement of the project purpose.

**(3) Efficiency**

On the whole, the inputs from the Japanese side (equipment, local cost, and counterpart training) were provided as scheduled. In addition, the technology transfer on seed inspection and the training program was efficiently conducted. However, there was a hindrance to realize the project purpose, strengthening high quality soybean seed production in East Java, due to the delay of land acquisition for the model Stock Seed Production Farm where expansion of soybean seed production has been planned. Small-scale strain production was therefore implemented at other farms as an immediate measure.

**(4) Impact**

As a result of establishing demonstration farms and providing training for key seed growers, their cultivating skills and awareness of high quality soybean seeds have been improved. Through training, merits of soybean pro-



Germination test at the seed inspection station (BPSD)

duction have been recognized, inducing expectation of increasing farmers' income. As a result, other farmers have started to take strong interest in high quality seed production. Thus the achievement of the overall goal of increasing production of soybeans in East Java is promising.

**(5) Sustainability**

In the government budget for agriculture, expenditure for soybean production and multiplication is consecutively provided. However, budgets to be allocated for the replacement of equipment and machinery will likely be difficult to secure. Also, to extend high quality soy seeds, the market value should be stable, but it is concerning that the future of the government's policy and subsidies is uncertain.

**6. Lessons Learned and Recommendations****(1) Recommendations**

To complete the model Stock Seed Production Farm system in order to extend soybean seed production, it is necessary to immediately complete land reclamation, and take appropriate measures to organize activities such as assignment of personnel and allocation of enough budget. In addition, the manuals that were made in the project for seed production, seed management, and seed inspection should be officially published.

It is also necessary to expand the application of the training for the key soybean seed growers in order to extend the use of high quality soybean seed.

<sup>1)</sup> After the food crisis, Indonesia considered "food security" as an imperative issue of the nation and promoted a three-year program on increased production of rice, soybean and corn.



# Forest Fire Prevention Management Project

**Project Sites** Bogor (West Java),  
Berbak (Jambi), Nangapinoh  
(West Kalimantan)



## 1. Background of Project

In Indonesia, a large area of forest has been destroyed by forest fires every year. The damages caused by these fires are especially serious when extremely dry seasons come once in every four to five years. In 1991 and 1994, the smoke from large-scale fires brought about flight navigation difficulties and health problems in neighboring countries, triggering an international problem. In Indonesia's Sixth Forestry Development 5-year Plan (1994/95~1998/99), it was stated that countermeasures for forest fires would be taken. Since the forestry industry will not work without a forest, the prevention of forest fires is an extremely important issue in Indonesia. Thus, the Government of Indonesia requested a versatile and comprehensive project-type technical cooperation from Japan.

## 2. Project Overview

### (1) Period of Cooperation

15 April 1996 – 14 April 2001

### (2) Type of Cooperation

Project-type Technical Cooperation

### (3) Partner Country's Implementing Organization

Directorate of Forest and Estate Crops Fire Control,  
Directorate General of Nature Protection and Conservation,  
Ministry of Forestry and Estate Crops

### (4) Narrative Summary

#### 1) Overall Goal

Forest fire prevention activities will be promoted throughout the country, and appropriate countermeasures against forest fires will be taken.

#### 2) Project Purpose

Prompt measures against forest fires at the central government level and methods of prevention and initial suppression of forest fires at the local level are improved.

#### 3) Outputs

- Early warning and detection system is established.
- The Ministry of Forestry and Estate Crops dis-

seminates the output of the project.

- A forest fire prevention system and an initial suppression system are strengthened.
- The participatory forest management system, which is effective for forest fire prevention, is strengthened.

### 4) Inputs

#### Japanese Side

Long-term experts	11
Short-term experts	15
Trainees received	11
Equipment	157 million yen
Local cost	13 million yen

#### Indonesian Side

Counterparts	25
Land and facilities	
Local cost	13 million yen

## 3. Members of Evaluation Team

### Team Leader:

Yoshiaki KANO, Managing Director, Forestry and Natural Environment Department, JICA

### Early Warning and Detection System:

Yasumasa HIRATA, Senior Researcher, Remote Sensing Laboratory, Resources Management Section, Forestry Management Division, Forestry and Forest Products Research Institute

### Forest Fire Prevention and Initial Suppression:

Koji KATAGIRI, Chief of Planning, Forest Owners' Cooperative Division, Forest Policy Planning Department, Forestry Agency, Ministry of Agriculture, Forestry and Fisheries

### Planning Evaluation:

Motonori TANAKA, Forestry and Environment Division, Forestry and Natural Environment Department, JICA

### Evaluation Analysis:

Jiro IGUCHI, PADECO Co., Ltd.

## 4. Period of Evaluation

3 September 2000 – 23 September 2000

## 5. Results of Evaluation

### (1) Relevance

Through their experience of large-scale forest fires, the Government of Indonesia has been taking countermeasures by drafting Government ordinance. Therefore, this Project is considered to be in line with the Government policy.

### (2) Effectiveness

Through the Project, models of early warning, prevention and initial suppression are individually established. For example, through the early detection system using satellite information, it is now capable of informing a plantation owner whenever a hot spot<sup>1)</sup> is detected, creating a deterrent to lighting fires<sup>2)</sup> inside plantations.

However, since there is a difference in progress in the establishment of the information system at the Central Government and of the warning, detection and suppression systems at the Local Government, the latest information of the Central Government could not be obtained by the Local Government immediately. Therefore, a comprehensive model combining these individual models has yet to be established. Furthermore, techniques related to fire prevention, initial suppression, participatory land management and output extension have been transferred to the Central Government, but due to a lack of operation costs on the Indonesian side, it has not reached a point where the technology is applied at the sites to gain experience.

### (3) Efficiency

Due to the economic crisis, the Government budget was insufficient, triggering a delay and shortage of operation costs. However, since the Japanese side bore part of the cost, the delay was recovered.

As for participatory forest management technology, an model activities for forest fire prevention involving the local community was efficiently established with limited input.

### (4) Impact

The Government of Indonesia acknowledged the effectiveness of the Project, and promoted the counterpart from a single division to a four-division Directorate office for Forest and Estate Crops Fire Prevention. The Central Government extended the Project output to other areas by selecting 4 states other than the Project site (Liau, Lampung, South Kalimantan and Central Kalimantan), and distributed manuals and pamphlets made by the Project.

### (5) Sustainability

Due to the decentralization policy, the authority of the local office (State Forestry Department) of the Ministry of Forestry and Estate Crops will be shifted to the Local Gov-



Joint fire-fighting training of rangers and others.  
Usage of fire control equipment as fire pump is acquired

ernment. Therefore, the sustainability of the Project is unpredictable. Also, since the operations budget has not been disbursed, problems remain in securing future operation costs from the budget.

For the early fire detection system, it is expected to sustain as long as the counterpart in the Central Government is not shifted.

## 6. Lessons Learned and Recommendations

### (1) Lessons Learned

When establishing a project, it is necessary to promptly react to the urgent needs of the counterpart country, as carried out in this Project.

### (2) Recommendations

For forest fire prevention and initial suppression methods, it is needed to further enrich training sessions both in terms of quality and quantity. For participatory forest management technologies, it is needed to further monitor the activities and refine them to a more user-friendly method to local residents. It is also important to introduce the forest fire detection system to the four selected states other than the Project site.

## 7. Follow-up Situation

Based on the technologies developed through this Project, with the objective of enhancing the capabilities of initial suppression and fire prevention, the Forest Fire Prevention Project Phase II (April 2002), targeting 4 model National Parks is in operation.

<sup>1)</sup> An area where the ground temperature is extremely high, thus a potential place for fire outbreaks. It is spotted from the infrared heat data collected from weather satellites.

<sup>2)</sup> It is prohibited to fertilize land by fires in Indonesia, however there are still many cases of using fires to cut labor costs for soil preparation, mainly in large scale and newly established cultivation

# Project on Human Resource Development in Trade Sectors



Project Sites Jakarta

## 1. Background of Project

The Government of Indonesia, aiming to diversify their petroleum dependent economic structure, formed a policy on the promotion of non-petroleum-and-gas export in 1984. Under these circumstances, the Indonesia Export Training Center (IETC) was constructed with a grant aid from Japan in 1987, and for 5 years from 1988, a further project-type technical cooperation "Export Training Center" was carried out to establish training services in the fields of export management, commercial Japanese language, export inspection and product promotion. A follow-up cooperation was carried out from January 1994 to September 1995, and most of the technical transfer was achieved as planned.

Furthermore in Indonesia, there had been a recognition of an increasing importance of export promotion, thus requiring more personnel with the knowledge and skills for international trades, especially in small and medium-sized enterprises. Given the circumstance, the Government of Indonesia requested a project-type technical cooperation from Japan to upgrade the level of export training.

## 2. Project Overview

### (1) Period of Cooperation

1 March 1997 – 28 February 2001

### (2) Type of Cooperation

Project-type Technical Cooperation

### (3) Partner Country's Implementing Organization

Indonesia Export Training Center (IETC)

### (4) Narrative Summary

#### 1) Overall Goal

Human resources, primarily in small and medium-sized enterprises, are developed to have the capability to map out various new trade-related strategies in the Republic of Indonesia.

### 2) Project Purpose

The IETC will be able to formulate and devise training programs (seminars and training courses) to provide Indonesian enterprises, primarily of small and medium sizes, with necessary knowledge, experience and know-how in trade.

### 3) Outputs

- The project's operation system will be established.
- Counterpart personnel in the IETC are to be trained as course planners.
- The knowledge and experience necessary for executing trade strategies or trading procedures will be offered to counterpart personnel.
- Useful information on trade will be offered to the public.

### 4) Inputs

#### Japanese Side

Long-term experts	5
Short-term experts	37
Trainees received	14
Equipment	22 million yen
Local cost	57 million yen

Total cost approx. 425 million yen

#### Indonesian Side

Counterparts	16 (9 course planners, 7 instructors)
Local cost	approx. 8.92 billion rupiahs (approx. 11 million yen)
Facilities	
Equipment	

## 3. Members of Evaluation Team

### Team Leader:

Tsunenobu MIKI, Senior Advisor, Institute for International Cooperation, JICA

### Technical Cooperation Planning:

Kazuma YOKOTA, Assistant Chief, General Coordi-

nation Section, International Trade and Policy Bureau, Ministry of Trade and Industry

**Technical Transfer Planning:**

Takeo FUKATSU, Manager, International Department No.2, Pacific Resource Exchange Center (PREX)

**Human Resource Development:**

Fumiko SEKINO, Course Leader, International Department No.2, Pacific Resource Exchange Center (PREX)

**Evaluation Management:**

Takehiro HOZUMI, First Technical Cooperation Division, Mining and Industrial Department, JICA

**Evaluation Analysis:**

Masayuki TAKAZAWA, RECS International Inc.

## 4. Period of Evaluation

8 November 2000 – 25 November 2000

## 5. Results of Evaluation

### (1) Relevance

The project has a high conformity with the government policy of promoting non-petroleum-and-gas export and striving to promote exporters' concerns, primarily those of small and medium enterprises. The IETC's importance has been ever increasing after the Asian currency crisis in 1997 and the exports has been expected to lead to economic recovery. Therefore, the needs for services provided by the IETC has been extremely high amongst the private enterprises.

### (2) Effectiveness

As a result of the project, training programs provided by the IETC became more diversified, having increased from 77 courses during 1996/1997 to 91 courses in 1999/2000. The cumulative number of participants increased from 1,625 in 1996/1997, to 2,467 in 1999/2000.

By the end of the project, course planners could expected to reach a satisfying level. However, as for instructors, since opportunities to deepen their expertise and to gain practical experience has been limited, it would be difficult to reach the level originally expected.

### (3) Efficiency

The quantity, quality and the timing of input were satisfactory overall. When Indonesia suffered the economic crisis, the Japanese side provided additional support to cover the local cost, which maintained the level of input required to implement the project.

### (4) Impact

The training programs conducted by the IETC have largely been accepted by the private enterprises, judging from the number of enterprises repeatedly sending its staff to the training courses. 75% of the participants were



Training using computers

applying the skills learned from the training sessions, and 33% of them considered the sessions to have actually contributed to their work in the export business. From these figures, it can be said that this project has begun to indicate a positive impact.

### (5) Sustainability

The Government has kept its orientation of emphasizing export promotion especially to small and medium-sized enterprises. Therefore, it is thought that the IETC will sustain its position as a key training center.

The income of the IETC has been increasing from both training and inspection/examination services. The income will be expected to increase further according to the improvement of the number, contents and quality of training service, thus securing financial sustainability.

## 6. Lessons Learned and Recommendations

### (1) Lessons Learned

The training course planners modified the training courses to suit their own undertakings using management tools such as a PERT chart that they had learned from the long-term exports. It is recommended for other projects to provide counterparts with opportunities to take the initiative in the management of the project by offering these tools.

### (2) Recommendations

There is a need to further develop the capacities of the instructor in order to conduct training closer to the practice in export business. Therefore, follow-up activities such as practical training through OJT, and provision of information related to trade are essential.