

## 4. Period of Evaluation

February 2001 – June 2001

## 5. Results of Evaluation

### (1) Relevance

As the Government of Laos puts a premium on preservation and restoration of forests, the training is highly necessary. Because Laos has much in common with Thailand in terms of natural conditions and languages, it seems highly relevant to conduct training in Thailand, where the local communities have the knowledge and skills of forest preservation and restoration.

### (2) Effectiveness

Training was conducted for 56 forest administrative officers of each prefecture and area of Laos, and for 11 participants from the Thai RFD. Both the trainees and the training implementing organization RFD answered in a questionnaire and interviews that they improved their knowledge and skills sufficiently to achieve the expected objectives.

### (3) Efficiency

Experts and the amounts and types of equipment were suitable for the contents. This training was implemented mainly in the Udonthani Nursery Center in the Northeast part of Thailand. As the center and the reforestation extension techniques had been provided by Grant Aid and Project-Type Technical Cooperation, "The Reforestation and Extension Project in the Northeast of Thailand phase", the efficiency of the cooperation by Japan is high.

### (4) Impact

Laos has high expectations about utilizing the skills obtained from this training. There are examples in which ex-trainees implemented domestic training. However, because of the lack of budget, equipment, means of communication and transportation that are required for the trainees to carry out the extension of forestry techniques, it is presumed that the extension of the acquired skills is presently limited.

### (5) Sustainability

Almost all of the trainees returned to their original work. However, funds and equipment to utilize the acquired techniques are not sufficient to continue technique extension activities.



Field trip to province



A visit to mushroom growing facility

## 6. Lessons Learned and Recommendations

### (1) Lessons Learned

As forestry training is effective for the preservation and restoration of forests, it should be conducted also to other Indochina countries (Myanmar, Vietnam, Cambodia) with similar geographical and natural conditions.

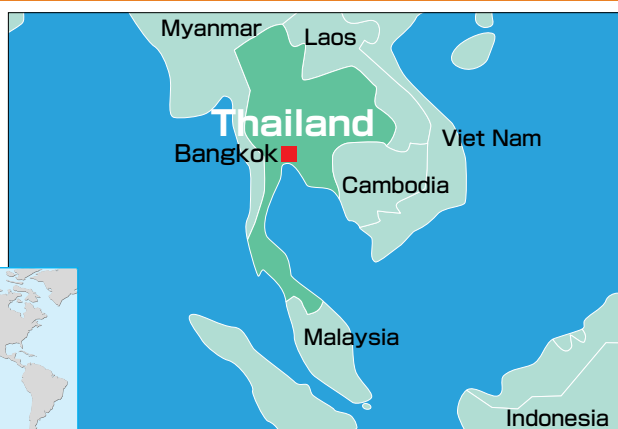
### (2) Recommendations

Study tours and OJT (On-the-Job Training) should be added to the curriculum of the present contents of the training course.

Dispatching forestry experts to provinces or areas and providing training and funds to operators in forestry should be also considered since equipment, communication facilities, or other expenditures necessary for the extension of acquired techniques are limited.

<sup>1)</sup> This collaborated program is agreed in August 1994 between our country and the Government of Thailand, in order to conduct development cooperation operations mainly to Indochina countries, based on Thai techniques accumulated by Japanese technical cooperation.

# Research Project for Higher Utilization of Forestry and Agricultural Plant Materials in Thailand



Project Sites Bangkok

## 1. Background of Project

Thailand's forests are diminishing rapidly due to increasing demand for timber fuelled by rapid economic development and an increase in population, as well as an increase in the cultivation of forests and slash-and-burn agriculture carried out by poor farmers. Thailand's Royal Forest Department prioritizes the maintenance of 40% of all land as forest in its national social and economic development plan and promotes afforestation. The Thai government recognized the need for technology that enables the efficient use of timber and development of timber alternatives, and requested Japan's assistance in a Project-type technical cooperation to develop a manufacturing technique for pulp and paper – which was expected to meet with increasing demand – and extension of the method.

In response, Thai and Japanese governments agreed to establish a project aiming at creating a new model for an agroforestry system that would enable the regional agricultural societies to sustainably develop through the production of pulp and paper.

## 2. Project Overview

### (1) Period of Cooperation

1 August 1996 – 31 July 2001

### (2) Type of Cooperation

Project-type Technical Cooperation

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

Kasetsart University

### (4) Narrative Summary

#### 1) Overall goal

The effectiveness of the new agroforestry system model is verified, and the model is introduced into the rural communities in Thailand.

#### 2) Project purpose

A new agroforestry system model with a higher utilization of forestry and agricultural plant materials is developed for sustainable rural development.

materials is developed for sustainable rural development.

### 3) Outputs

- The technologies on biological process of the agroforestry system are improved and developed.
- A sustainable agroforestry system is identified and recommended.
- Practical pulping technology for small-scale pulp mills is developed for the higher utilization of forestry and agricultural plant materials.
- Utilization and management technology for pulping waste and plant material residues are developed.

### 4) Inputs

#### Japanese Side

|                    |                 |
|--------------------|-----------------|
| Long-term experts  | 6               |
| Short-term experts | 15              |
| Trainees received  | 17              |
| Equipment          | 297 million yen |
| Local costs        | 22 million yen  |

#### Thai Side

|              |                 |
|--------------|-----------------|
| Counterparts | 99              |
| Local costs  | 179 million yen |

## 3. Members of Evaluation Team

### Team Leader:

Hideki MIYAKAWA, Deputy Managing Director, Forestry and Natural Environment Department, JICA

### Agroforestry:

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### Pulp Technique:

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JICA

**Evaluation Analysis:**

Takahiro MIYOSHI, Fukuyama Consultant Co., Ltd.

#### 4. Period of Evaluation

5 March 2001 – 16 March 2001

#### 5. Results of Evaluation

##### (1) Relevance

The Thai government has paid great deal of attention to rural development in consideration of environmental conservation, giving this project a great deal of consistency with Thailand's policies. The relevance is also high given the needs of the counterparts and rural residents.

##### (2) Effectiveness

Activities related to forest ecosystems, plant physiology and tissue cultures have attained an output with a high degree of academic value. Recommendations regarding agroforestry systems are being organized and a schedule for completing the final report has been set. Although there are some delays in developing technology for efficient use of agricultural and forestry residues, the results expected from research into pulp technology and technology for managing the effluents have been achieved.

Technology related to the agroforestry system model was learned from researchers on the Thailand side, and the project purpose have achieved.

##### (3) Efficiency

The 1997 economic crisis had severe effects on Thailand's fiscal balance, and the Japan side had to take responsibility for additional input. This measure enabled activities to continue without delays or postponement. Also, technical exchanges with JICA projects in other countries, the sharing of lessons learned, and use of equipment in other schemes enhanced efficiency.

##### (4) Impact

The agroforestry system developed in this project is just starting to be used in national projects and corporate farms, so as of this point, the system's effectiveness and the potential for its extension to rural areas is not yet apparent.

##### (5) Sustainability

Judging from institutional capacity and technique acquired by counterparts, the project's sustainability is high. However, since the fund for research and diffusion activities have been insufficient, financial support from external sources such as national projects and overseas assistance seemed to be essential.



Papermaking at a small-scale pulp mill

#### 6. Lessons Learned and Recommendations

##### (1) Lessons Learned

Future agroforestry projects should proceed with due attention to trends in market prices in supplying a certain amount of raw materials, in order to ensure farmers' incentive. Also, the instruction to enable the supply of the raw materials from multiple plants should be incorporated in a project, to minimize the effect of seasonal damage and ensure steady supply.

The research papers and data are important indicators for presenting the project performance, but Thai researchers tend to disregard research papers and hold on to data individually, which is inappropriate. Future projects on research cooperation should improve this aspect.

##### (2) Recommendations

In this project, agroforestry techniques and pulp techniques were researched separately, but these two techniques should ideally be integrated.

Since Kasetsart University does not have a specialized organization responsible for extension, the cooperation of other organizations was indispensable for spread a new model. Community leaders who can promote the new model should be trained and secured by using in-country and third-country training, while also providing additional support through the dispatch of individual experts.

#### 7. Follow-up Situation

As follow-up, three individual short-term experts were dispatched in FY 2001 to assist in the activities of agroforestry testing sites.

# Project on Testing and Inspection Technology Upgrading for Textile and Garment Products



Project Sites Bangkok

## 1. Background of Project

The textile industry is one of the major industries in Thailand. However, Thailand has been losing its comparative advantage since other countries, such as China, Indonesia and Vietnam, started exporting cheaper products. In order to survive the intensifying global competition, small and medium enterprises need to strengthen their competitiveness by improving the quality of their products.

Under such circumstances, the Government of Thailand made a request to Japan for a project-type technical cooperation to improve product quality of small and medium enterprises by upgrading the testing and inspection services of the Textile Industry Division in the Ministry of Industry (hereinafter referred to as "TID").

## 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

Textile Industry Division (TID), Bureau of Industrial Sectors Development, Department of Industrial Promotion, Ministry of Industry

### (4) Narrative Summary

#### 1) Overall Goal

The product quality of small and medium scale textile/garment enterprises will be improved.

#### 2) Project Purpose

Technical services for small and medium scale textile/garment enterprises extended by the TID will be upgraded.

#### 3) Outputs

- The project operation system is established.
- The necessary machinery and equipment are provided, installed, operated and maintained properly.
- Technical capability of the counterpart personnel is upgraded.
- The testing and inspection services are implemented systematically.

- Training courses and seminars are implemented systematically.
- Information and advisory services as a trial are implemented systematically.

### 4) Inputs

#### Japanese Side

|                    |                  |
|--------------------|------------------|
| Long-term experts  | 7                |
| Short-term experts | 18               |
| Trainees received  | 11               |
| Equipment          | 1.8 million yen  |
| Local cost         | 0.14 million yen |
| Total cost         | 5.3 million yen  |

#### Thai Side

|                               |   |
|-------------------------------|---|
| Counterparts                  | 19  |
| Land, building and facilities | approx. 1.9 million yen<br>(approx. 68,441,000 baht)  |
| Local cost                    | approx. 0.57 million yen<br>(approx. 20,659,000 baht) |

## 3. Members of Evaluation Team

### Team Leader:

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### Technical Cooperation Planning:

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### Evaluation Management:

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### Evaluation Analysis:

Tadashi SEKIKAWA, ODA Consulting, Tohmatsu & Co.

## 4. Period of Evaluation

29 October 2000 – 15 November 2000

## 5. Results of Evaluation

### (1) Relevance

The textile industry is considered one of the top priority industries in the Industrial Restructuring Plan that the Thai Government has been promoting since 1997.

The TID plays a critical role as the only public testing and inspection organization, which is indispensable in improving the quality of textile products, and thus, to strengthen competitiveness. The TID provides services that private sectors cannot afford, such as training courses, seminars, information services and technical guidance.

Thus, this project is consistent with the policy of the Thai government as well as the needs of the textile industry.

### (2) Effectiveness

Six new testing and inspection items were added and 22 technical items were improved. Furthermore, the variety and quality of services were improved so that they can be provided to textile companies. The number of requests for testing and inspection increased from 583 in 1996 to 1099 in 2000. Approximately 200 new client companies were acquired, implying that the TID has been gaining recognition. Although there is room for improvement regarding deadline management of their service, client's evaluation of reliability and satisfaction are fairly high.

### (3) Efficiency

Due to the delay in completion of a new laboratory construction, the installation of part of the machinery and equipment was also postponed. However, the influence of the delay on the whole project was minimized in a flexible and impromptu manner, such as carrying out technology training even before the machinery and equipment installation, and installing machinery along with the progress of the construction, etc. Also, the project conducted technology testing with other organizations and cooperated in training and seminars. Therefore, the project was deemed efficient as a whole.

### (4) Impact

According to the survey conducted to 200 companies (32 companies responded) by the Evaluation Team, 67% answered that the TID was beneficial for quality improvement, and 50% answered that it was valuable for efficiency improvement. Moreover, some companies started product quality management after participating in seminars held by the TID.

### (5) Sustainability

Although testing and inspection operations of the TID will be transferred to the Thailand Textile Institute (THTI) one year after the termination of the project, there seems likely to be no significant change and same operation system and procedure will be taken over. There was no sharp decrease in budget from the Government during the implementation of the project. However, they will apply an independent accounting system to the THTI, therefore, the



Flammability testing laboratory



Fabric inspection training

outlook for sustainability remains ambiguous.

## 6. Lessons Learned and Recommendations

### (1) Lessons Learned

Increase in revenue by providing technical services is proved to be effective for strengthening sustainability of the project. The methods or systems to raise revenue must be considered when projects are in the planning stage.

### (2) Recommendations

Transfer of the testing and inspection operations to the THTI requires appropriate placement of personnel, establishment of an operating system, and management of client information. For technical sustainability, it is necessary for skilled counterparts to be transferred from the TID to the THTI. Means to facilitate transfer or lease of skilled counterparts to transfer technology should be considered.

From a financial aspect, financial support from the government is essential at least in the short term. After the smooth transfer, it is necessary for them to improve services, facilitate sales activities, obtain ISO9002 and ISO/IEC17025 to gain recognition as a technology testing/inspecting organization, and strengthen cooperation with the textile industry.

# Productivity Development Project



Project Sites Bangkok

## 1. Background of Project

In 1962, the Government of Thailand established the Thailand Management Development Productivity Center (TMDPC) in the Department of Industrial Promotion, Ministry of Industry under cooperation of the International Labor Organization (ILO). Since then, the Thai government has been promoting productivity and management development. The Thai government requested Project-Type Technical Cooperation from the Japanese Government for strengthening the function of the TMDPC. It also aimed at training instructors on diffusing the productivity movement throughout the country in order to counter competition with the neighboring newly-industrialized countries and to be abreast of the diversification of the industry world.

Five years after the "Productivity Development" project started in 1994, the goal of training instructors in the following three areas was attained: "productivity consulting technology," "human resource development and labor relations," and "promotion diffusion and investigation."

The economic crisis that occurred in 1997 during this project triggered the Thai government to hammer out a productivity improvement policy that would strengthen the international competitiveness of small and medium-sized companies. There was also an increase in the necessity of human resource development for enterprise diagnosis, and guidance. Based on these circumstances, the Japanese Government decided to carry out a follow-up cooperation for two years, starting in 1999, to develop human resources at the senior level, and thus create employees who could train their juniors in "productivity consulting technology" and "human resource development and labor relations" through On-the-Job Training (OJT) within companies

The subject of this evaluation study is the follow-up cooperation period.

## 2. Project Overview

### (1) Period of Cooperation

18 February 1999 – 17 February 2001

### (2) Type of Cooperation

Project-type Technical Cooperation

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

Thailand Productivity Institute (FTPI)<sup>1)</sup>, Ministry of Industry

### (4) Narrative Summary

#### 1) Overall Goal

Through FTPI as a state productivity organization, the productivity activities are diffused in Thai enterprises.

#### 2) Project Purpose

The productivity activities are effectively carried out in the Thai enterprises by the project counterparts of the FTPI.

#### 3) Outputs

- The management system for project execution is strengthened.
- The counterparts of the FTPI obtain knowledge of the consulting technology.
- The counterparts of the FTPI obtain knowledge on human resource development and labor management for the sake of productivity improvement.

#### 4) Inputs

##### Japanese Side

|                    |                         |
|--------------------|-------------------------|
| Long-term experts  | 9                       |
| Short-term experts | 43                      |
| Trainees received  | 8                       |
| Equipment          | 1 million yen           |
| Local cost         | 5 million yen           |
| Total cost         | approx. 180 million yen |

##### Thai Side

|                                |  |
|--------------------------------|--|
| Counterparts                   | 38   |
| Land, facilities and equipment |  |
| Local cost                     | approx. 11 million yen<br>(approx. 3.973 million Baht) |

## 3. Members of Evaluation Team

### Team Leader:

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### Technology Transfer Planning:

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**Evaluation Management:**

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**Evaluation Analysis:**

Hideo YAMAMOTO, Consultant, International Development Associates Ltd.

#### 4. Period of Evaluation

11 December 2000 – 23 December 2000

#### 5. Results of Evaluation

##### (1) Relevance

Productivity development and the improvement of the production process are upheld in the Thai government's "Industry Structure Adjustment Project" as important subjects for strengthening international competitiveness. The FTPI is the organization for human resources development and business coordination in terms of productivity improvement. Therefore, this project also coincides with the development policy of the Thai government and the needs of the FTPI.

##### (2) Effectiveness

Twelve senior level employees were fostered through the OJT on company management consulting (56 companies), small and medium-sized enterprises consulting (30 companies), and process improvement assistance (10 companies). As a result, in the FTPI, there sufficient human resource was developed in both quality and quantity.

The ten companies that received process improvement support became model enterprises, and they grappled with improvement activities, dealing with multiple shop areas for six months. As a result, in all of the companies, positive effects such as a decline of the defective rate, reduction in the delivery delay, cost reduction, and increased production were observed.

##### (3) Efficiency

Experts were dispatched as planned, but there were some minor changes in the field of expertise. The number of both trainee acceptances and input equipment which were not originally planned was kept to a minimum, so input was efficient.

Although thirteen of the trained counterparts retired for various reasons, the FTPI complemented nine, including new recruits.

##### (4) Impact

During the cooperation period, the FTPI provided 96 companies with OJT activities for productivity improvement, and trained 38 consultants. There are many clients who wish to continue receiving the services, and the number of new contacts and inquiries is also increasing. Understanding and practice of the activities of productivity improvement has prevailed in management, administration, and spot staff at domestic Thai companies.



A counterpart giving a lecture

##### (5) Sustainability

In October 2000, the FTPI shifted to the self-support accounting system. By the forecast for fiscal year 2001 there was still an approximately 56 million yen (approximately 20 million Baht) deficit. However, since they have made a reserve fund and had accumulated about 550 million yen (about 200 million Baht) the outlook looks fine for the time being. Technically, the senior consultants have reached a level where they can train junior instructors, and where quality improvement in the service is prospective. Therefore, sustainability is secured.

#### 6. Lessons Learned and Recommendations

##### (1) Lessons Learned

In this project, because the time allocation between the newly added duties by the project and the original duties of the counterparts was fully discussed by the steering committee, smooth project management became possible. It is important to make such adjustment from the beginning of the cooperation.

##### (2) Recommendations

In the FTPI, it is necessary to secure an absolute number of human resources and to improve their quality, thus re-examination of the entire employment system, and improvement of labor management to reduce turn over are required immediately.

Financially, in addition to getting appropriate support from the Thai government, it is necessary to adopt profitable businesses such as consulting and training. In the future, it will be necessary to consider strengthening advertisement activities to diffuse the consultation of productivity improvement in Thailand.

<sup>1)</sup> In 1995, during the project that started in 1994, the FTPI was just newly established. The function of the TMDPC was transferred to the new organization and the implementing organization of the project also changed to the FTPI.