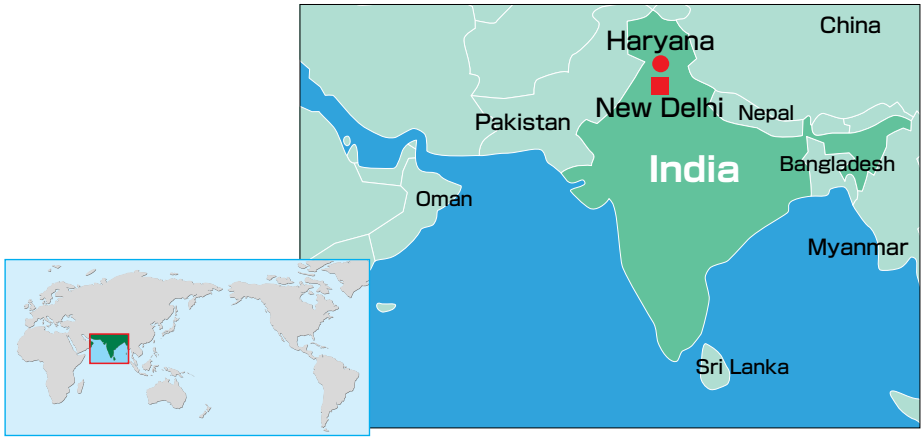
India

The Project for Development of Quality Seed



Project Sites Haryana

1. Background of Project

India requires 235 million tons of food a year to feed its population, which reached 1 billion in 2000. The Government of India, therefore, identified food self-sufficiency as one of the objectives in the national development plan, through increasing food production. The Government was attempting to stabilize the supply of high yield and quality seeds, and distribute them to farmers.

Accordingly, the Government drew up a plan to upgrade equipment and facilities for research and multiplication at organizations such as the Indian Agricultural Research Institute (IARI), in order to strengthen research and development. The plan was hindered, however, by the lack of budget and technological skills. As a result, the Government of India requested the Government of Japan to support strengthening of the system for research, multiplication and supply of quality seeds by means of Grant Aid for upgrading the facilities and equipment at IARI.

2. Project Overview

(1) Period of Cooperation

FY1995

(2) Type of Cooperation

Grant Aid

(3) Partner Country's Implementing Organizations

Department of Agricultural Research and Education, Ministry of Agriculture
Indian Agricultural Research Institute (IARI)

(4) Narrative Summary

1) Overall Goal

High yield and quality seeds are provided to farmers.

2) Project Purpose

A system for seed development, preservation and processing is established at IARI.

3) Outputs

a) Seed preservation storage and a seed-processing house are constructed.

b) Equipment and facilities for seed development, preservation and processing are upgraded.

4) Inputs

Japanese Side

Grant	662 million yen (E/N amount)

Indian Side

Land

3. Members of Evaluation Team

JICA India Office
(Commissioned to Management Services Group)

4. Period of Evaluation

14 February 2000-15 March 2000

5. Results of Evaluation

(1) Efficiency

Storage facilities constructed and equipment provided were being utilized properly. The scale of cooperation was judged as appropriate.

(2) Effectiveness

Although the project did not increase seed production at IARI, costs for processing and labor (packing) were reduced. As a result, the seed production process at IARI became more efficient. Moreover, the quality of seeds was better preserved due to the improved equipment and appropriate management. Also, the quality of wheat and paddy seeds were improved, and a greater variety of seeds were produced including vegetables, crude seeds and hybrid seeds. Accordingly, the purpose of this project was almost achieved.

(3) Impact

IARI was recognized by FAO as an international level training center regarding the development, preservation and processing of post-harvest seeds. Local farmers who had seen good results started buying seeds from IARI, which resulted in higher yields than from the seeds provided by National Seeds Corporation. In addition, more than 50 professionals were trained in the field of modern seed management technology. It was expected that knowledge and skills regarding seed management would continue to improve over time in India.

(4) Relevance

The Government of India aimed to stabilize the supply of high yield and quality seeds and distribute them to farmers, in order to avoid food shortages. Therefore, this project was highly relevant, corresponding to the national policy of India.

(5) Sustainability

There are the problems of the expected financial support from the Government had not been provided, as well as the lack of technicians to maintain equipment and facilities. However, regarding the achievement of the project so far, sustainability of this project would be assured.

Staff of LARI checking quality of seeds

Researchers examining a machine

6. Lessons Learned and Recommendations

(1) Lessons Learned

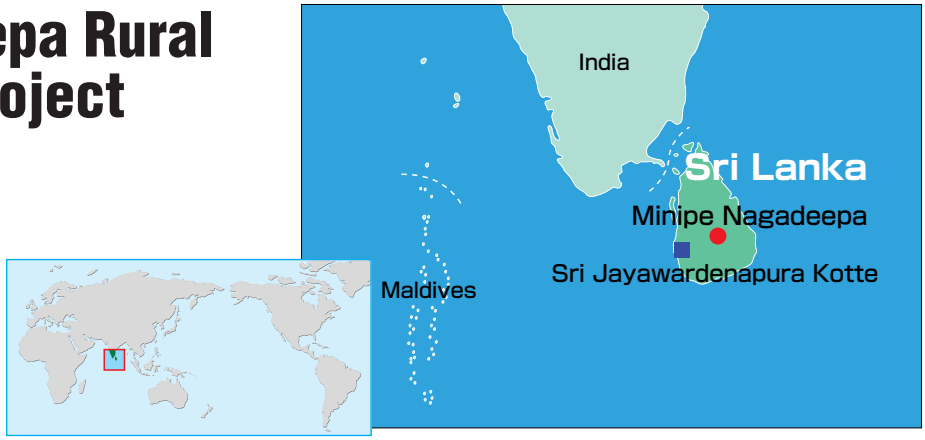
Training should be conducted not only in technical areas, but also to improve the management of the institution.

(2) Recommendations

In order to establish financial and institutional sustainability at IARI and to promote the provision of quality seeds, it is recommended that IARI cooperate with other organizations, such as the National Bureau of Plant Genetic Resources, National Seeds Corporation, agriculture universities, and private seed companies.

Sri Lanka

Minipe Nagadeepa Rural Development Project



Project Sites Minipe Nagadeepa

1. Background of Project

The Government of Sri Lanka had promoted comprehensive rural development including the repair of existing irrigation systems, support to improve the people's living and economic conditions and other activities. The Government of Japan, at the request of the Government of Sri Lanka, had conducted the development study "Mahaweli Agricultural Development Project" from 1982 to 1986, and drawn up a plan for increasing productivity through the intake of irrigation water from a diversion weir on Mahaweli river.

Based on this study, the Government of Sri Lanka requested the Government of Japan to cooperate in the improvement of the people's standard of living and the revitalization of their economic activities in the Minipe and Nagadeepa areas, aiming to correct the gap between the social and living conditions of Minipe /Ngadeepa and those of the Mahaweli River Project Area, its neighboring area.

2. Project Overview

(1) Period of Cooperation

FY1989

(2) Type of Cooperation

Grant Aid

(3) Partner Country's Implementing Organization

Irrigation Department, Ministry of Mahaweli Development

(4) Narrative Summary

1) Overall Goal

a) Life of the residents in Minipe and Nagadeepa areas is improved.

b) Economic activities in the area are revitalized.

c) The gap between social and living conditions of Minipe and Ngadeepa and those of the Mahaweli River Project Area is corrected.

2) Project Purpose

a) Safe water for domestic use is provided in Minipe and Ngadeepa areas.

b) The distribution of agricultural products and necessary goods in the area is improved.

3) Outputs

a) Existing wells are restored and other wells are newly constructed in the area.

b) The roads of the area are rehabilitated.

4) Inputs

Japanese Side

Grant 1,158 million yen
(E/N amount)

Sri Lankan Side

Land

3. Members of Evaluation Team

JICA Sri Lanka Office
(Commissioned to INFOTECH (PVT) LTD)

4. Period of Evaluation

April 2000

5. Results of Evaluation

(1) Efficiency

Though construction delays occurred at the beginning, construction eventually caught up to the original schedule and the project was completed on time.

Approximately 70 thousand people benefited from the project. Judging from their total benefit, the project was highly efficient.

(2) Effectiveness

The total number of newly constructed wells was 386 and restored wells 334. These wells provided safe water for domestic use. In addition, newly constructed roads (32.9Km) and restored roads (55.1Km) contributed to the smooth distribution of agricultural products and necessary goods. Therefore, it was concluded that the project purpose was achieved.

(3) Impact

Due to the construction and the restoring of wells, women and children could reduce the time spent on collecting water by up to three hours per day. As a result, they could spend more time on domestic work and business activities, which contributed to an increase in income. Also, according to interviews with residents, the incidence of diseases attributed to unsanitary water was lower.

(4) Relevance

The project was planned based on the development study conducted by JICA from 1982 to 1986. Before the project started, there was a large gap between the social and living conditions of Minipe, Ngadeepa and the Mahaweli River Project Area. Due to the above reasons, the project was relevant as a whole.

(5) Sustainability

The project was implemented by the irrigation department, while the maintenance was intended to be managed by residents themselves or district governments. The Basic Design Study for the project indicated that the Sri Lankan side should establish the system for maintenance and management, and document the conditions for building an effective system. However, at the time of the evaluation, no such system had been established at the community level, which hinders sustainability. Also, maintenance skills were insufficient. As a result, some wells were damaged and remained unused, while roads had potholes.

6. Lessons Learned and Recommendations

(1) Lessons Learned

It is necessary to devise a concrete plan for establishing a system for maintenance and management of wells and roads, in collaboration with the Sri Lankan side.

Furthermore, it is important to revise the maintenance system, checking whether the financial conditions had changed since the project was planned, and whether the system was established according to plan.

A well constructed by the project

A well constructed at an elementary school

(2) Recommendations

The Government of Sri Lanka and the implementing organization should consider how to maintain the wells, which are useful, immediately. For example, the project requires imposing a user fee for water in order to raise funds for maintenance.

Thailand

Community Health Project

Project Site Khon Kaen Province

1. Background of Project

Since 1976, Japan has supported successful health projects in Thailand through Grant Aid and Project-type Technical Cooperation. However, health and medical conditions in Thailand have changed due to the change in major diseases in the late 1980s. To respond to the changes, it became necessary for Thailand to construct a community health system.

Accordingly, JICA had dispatched study teams three times since 1989 to discuss the possibility of cooperation with Thailand in this area. Having grasped the situation and problems facing the current health and medical system and major diseases, the Government of Thailand requested Project-type Technical Cooperation from the Government of Japan for the planning of an effective health and medical system.

2. Project Overview

(1) Period of Cooperation

1 September 1991-31 August 1996

(2) Type of Cooperation

Project-type Technical Cooperation

(3) Partner Country's Implementing Organization

Ministry of Public Health

(4) Narrative Summary

1) Overall Goal

Proposals for health and medical care are adopted in the 8th Five-year National Health Plan (1997-2002) including rural health service, urban health service, dental health care, and emergency trauma prevention.

2) Project Purpose

An effective health and medical system in Thailand is established.

3) Outputs

a) Participatory Action Research[1)] is conducted in each of the sub-projects (rural health service, urban health service, dental health care, and trauma prevention).

b) Systems research on health insurance is conducted.

c) Human resources development in Community Health Services is achieved.

4) Inputs

Japanese Side

Long-term experts	8
Short-term experts	27
Trainees received	
Equipment	
Local cost	approx. 32 million yen

Thai Side

Counterparts	
Land and buildings	
Local cost	approx. 153 million bath (approx. 450 million yen)

3. Members of Evaluation Team

JICA Thailand Office
(Commissioned to Mr. Kowit Krachang, Mr. Chaiwat Panjapongse, Mr. Siriwan Grisurapong and Mr. Somruthai Intakochasarn)

4. Period of Evaluation

12 March 2000-30 March 2000

5. Results of Evaluation

(1) Efficiency

The level and timing of inputs were appropriate. Participatory Action Research enabled involved organizations, residents of the targeted area and the implementing organization to cooperate on research for the improvement of health services. This approach facilitated consensus building among stakeholders and

kept project costs down. In conclusion, the project was implemented efficiently.

(2) Effectiveness

Participatory action research had been successful in the achievement of the objectives set forth in each of the four sub-projects for the development of the health system and other sub-projects for medical and health system research. Human resources development in Community Health Services was also achieved. Accordingly, the proposal for the Community Health Service System in the National Health Policy was submitted to the responsible organization. Therefore, the project purpose was attained.

(3) Impact

The results of the sub-projects were reflected in important activities of the 8th National Health Plan. Therefore, it is concluded that the overall goal of the project was achieved.

Other impacts of sub-projects were as follows: Groups of residents built a network to continue their activities, such as producing vegetables (urban health service). A rural health system was introduced in several areas (rural health service). Regarding emergency medical service, education and promotion activities were conducted through TV and radio at the national level (emergency trauma prevention).

Moreover, the stakeholders' experience in participatory activities was applied in their actual work in their organizations. In addition, it was recognized that the participation of local people was necessary for social development in long term.

(4) Relevance

As was mentioned above, the proposals from the project for the improvement of Community Health Service were included in the National Health Plan of Thailand as important activities. The project should be relevant since the activities spread nationwide. Also, Participatory Action Research was appropriate to plan sub-projects based on the needs and concerns of stakeholders, including residents.

(5) Sustainability

The emergency trauma prevention sub-project was sustainable in technical terms while the sustainability was constrained in financial terms due to Thailand's economic recession. As to the urban health service, institutional sustainability should be firm since a cooperative system was established among people's organizations, local government and NGOs. However, it was still necessary to support the project in technical terms in order to realize the ideal of a "healthy community". As to the rural health service, the sustainability of the rural health system at each level (province, district and village) was confirmed, but the local residents didn't have many opportunities to propose their ideas.

A Health post set up by the Project

Dental health care faced problems, such as insufficient support from the administrative side and the high cost of managing the dental health unit.

6. Lessons Learned and Recommendations

(1) Lessons learned

It is effective for long-term development and sustainability of the projects that stakeholders at respective levels (ministry, local government, NGO, people's organization) participate in the planning, implementation, monitoring and evaluation of projects. Nevertheless, it must be carefully considered who participates, at which stage in the process of the project and how. The project must strive to involve socially disadvantaged people.

(2) Recommendations

To explore the impacts of the project, it was considered important to promote local people's participation, to construct a cooperative system among related organizations over time corresponding to decentralization. It was also considered important to solve the problem of a lack of administrative personnel at the village level, and to make laws and regulations covering the new community health service.

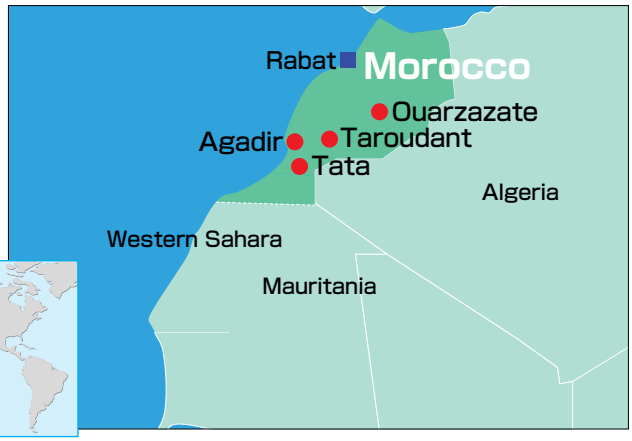
7. Follow-up Situation

The Project-type Technical Cooperation "Project for Development of Trauma Center Complex" is being implemented in Kohn Kaen Hospital from 1 July 2000 (up to 30 June 2005), to strengthen the activities of the emergency trauma prevention sub-project and to improve services in this field in Khon Kaen Province.

1) Participatory Action Research is the method taken in this project to identify appropriate actions to improve the health system by involving local people in the implementation and evaluation of the sub-projects.

Morocco

The Project of Drinking Water Supply in Rural Areas



Project Sites
Agadir, Taroudant, Tata, Ouarzazate

1. Background of Project

In the southern areas of the Atlas Mountains in Morocco, the main source of potable water for villagers is underground water due to the desert climate. The existing manually excavated wells, however, had many problems. The amount of water was insufficient and the quality poor, which caused social problems such as water-borne diseases and a massive workload of women and children because they had to fetch water from distant wells.

In 1992, the Government of Morocco set up the "PAGER Program" (Program d' Approvisionnement groupé en Eau Potable des Populations Rurales) which aimed to increase the water supply coverage rate in rural areas to 80 percent by the year 2000. For implementation of the Program, the Government requested the assistance of international agencies and developed countries, including Japan. In response, the Government of Japan provided Grant Aid for the procurement of water supply equipment for the southern areas of the Atlas Mountains where the ratio of served population was especially low.

2. Project Overview

(1) Period of Cooperation

FY 1994 and FY 1996

(2) Type of Cooperation

Grant Aid

(3) Partner Country's Implementing Organization

Directorate General of Hydraulics, Ministry of Public Works [1)]

(4) Narrative Summary

1) Overall Goal
To improve the standard of living of people in the rural areas located in southwest Morocco.

2) Project Purpose
To provide safe and stable water for domestic use to people living in the targeted villages.

3) Outputs
a) Water supply facilities are installed.
b) An appropriate operation and maintenance system for water supply facilities is established.

4) Inputs

Japanese Side

Grant	721 million yen (E/N amount)

Moroccan Side

Counterparts
Local cost (Well excavation, installation of water tanks, pumps, communal taps, house connection pipes, etc)

3. Members of Evaluation Team

JICA Morocco Office
(Commissioned to Mr. Mitsuro UEMURA, JICA Expert in the Planning of Drinking Water Supply in Rural Areas and a local consultant company Morocco Development)

4. Period of Evaluation

9 February 2000-19 February 2000

5. Results of Evaluation

(1) Efficiency

The Project was started in 1995, the year of the start of the PAGER Program, and the procurement of equipment was prompt. Such appropriate timing and efficiency from the Japanese side was highly evaluated. Regarding the Moroccan side, installation of the procured equipment was carried out smoothly, as a whole, except for some cases where agreement with villagers took a long time.

(2) Effectiveness

The overall effectiveness of the project was high. The project provided safe potable water to the rural areas, reaching 10,000 more member of the population than targeted. Moreover, in the first phase of the project (FY 1994), the number of villages reached increased from the 86 originally targeted to 99. There were some problems in the use of equipment, however, such as the manual pumps installed on rain-water tanks did not function well because the tanks had dried up.

(3) Impact

One notable impact was that the school enrollment rate for girls increased two to nine times. Presumably the project partly contributed to this change, since many girls had been released from water-fetching activities by the project.

The water quality at the project sites had been improved to a great extent, and the incidence of water-borne diseases such as diarrhea, typhoid, and dysentery had decreased. The workload on women to fetch water had also been reduced, and especially the reduction of this burden during pregnancy contributed to prenatal health. Moreover, the infant mortality rate of the project sites had diminished to the level of 13-37 percent of the national average. Thus, the supply of safe and stable potable water through the project had contributed to the improvement of the standard of living in the targeted rural areas.

(4) Relevance

The purpose and activities of the project were highly relevant to the needs and policies of Morocco. The PAGER Program aims to increase the water supply coverage rate in rural areas. The project targeted the southern areas of the Atlas Mountains, where the ratio of served population was especially low.

(5) Sustainability

From the beginning of the project, the participation of the targeted population was incorporated, so as to enhance sustainability. In the PAGER Program, the formulation of a water management association is a pre-condition for installation of water supply equipment in a village. This system promoted the villagers' awareness towards the project, and in some villages, people installed house connection pipes or distributed water to surrounding areas by themselves.

The operation and maintenance system for facilities was well established, and no large problems have occurred with the new equipment. The technology transfer in this area has been attempted after providing the equipment, by utilizing the scheme of soft-component (i.e., technical cooperation by Japanese consultants) and dispatching Individual Experts. It is necessary, however, to improve the skills for examining and maintaining the equipment as the years pass.

Local consultant conducting interview at a village

6. Lessons Learned and Recommendations

(1) Lessons Learned

Since the research and documentation abilities are quite high on the Moroccan side, it is possible to formulate a project in a relatively short period, based on the quality of the documents submitted.

(2) Recommendations

Since the targeted villages are scattered across the project area, it is difficult to grasp the situation of all villages. In addition, it was reported that in some villages, the installation of equipment took a long time. It was recommended that the situation of targeted villages be followed-up by the Individual Experts being dispatched at present.

7. Follow-up Situation

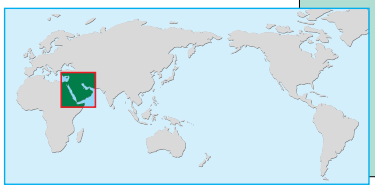
Technical cooperation is being implemented by dispatching one long-term expert (November 1999 to October 2003) and three short-term experts (June to August 2001). The purpose of the technical cooperation was to identify a future project to assist the PAGER Program, to follow up the already implemented projects, and to transfer the technology in the operation and maintenance of equipment.

Based on this evaluation result, another grant aid project, "the Project of Drinking Water Supply of Southern Areas", started in March 2001.

1) Ministry of Public Works altered its name to Ministry of Equipment at present

Saudi Arabia

Mangrove Protection



Project Sites

Riyadh, Farasan Island, and Arabian Gulf coastal zones

1. Background of Project

Saudi Arabia formulated a System Plan for Protected Areas and attempted to establish protected areas in the coastal zones. The National Committee of Wildlife Conservation and Development (NCWCD) was the only organization that promoted the protection of the natural environment in Saudi Arabia and had been in charge of the activities concerning conservation and development of wildlife and its living environment. Under these circumstances, the Government of Saudi Arabia requested Japan to provide technical cooperation focused on research, planning and education necessary for the protection and rehabilitation of mangrove forests in order to contribute to drafting the national mangrove inventory, a key activity in the Plan mentioned above.

2. Project Overview

(1) Period of Cooperation

10 April 1993-9 January 1998

(2) Type of Cooperation

Dispatch of Individual Expert

(3) Partner Country's Implementing Organization

National Committee of Wildlife Conservation and Development (NCWCD)

(4) Narrative Summary

1) Overall Goal

a) Mangrove forests along the coasts of the Arabian Gulf and Red Sea in the territorial seas of Saudi Arabia are protected.

b) Public awareness concerning conservation of natural mangrove forests is raised in Saudi Arabia.

2) Project Purpose

Mangrove forests in the protected areas of Farasan Island and priority Arabian Gulf coastal zones are protected and rehabilitated.

3) Outputs

a) Seedbeds of mangrove are developed.

b) Mangroves are planted.

c) Planting technologies for the rehabilitation of devastated and degraded mangrove vegetation are transferred.

d) The state and distribution of mangrove vegetation are evaluated and an inventory of mangroves is formulated.

e) Mangrove vegetation areas along the Red Sea and Arabian Gulf in the territorial waters of Saudi Arabia are mapped and varieties of mangroves are identified.

f) A mangrove conservation and management system is established in the protected areas of Farasan Island and special areas along the Arabian Gulf coast.

g) Awareness raising and extension activities concerning mangrove protection and environmental education are promoted among the Saudi Arabian public.

4) Inputs

Japanese Side

Long-term expert	1
Trainee received	1
Equipment	

Saudi Arabian Side

Counterparts

Facilities

3. Members of Evaluation Team

JICA Saudi Arabia Office

(Commissioned to The Economic Bureau)

4. Period of Evaluation

November 1999-March 2000

5. Results of Evaluation

(1) Efficiency

A detailed plan was formulated at an initial stage and technology transfer by Individual Experts was implemented smoothly; therefore, expected outcomes were accomplished. However, as the activities of seedbed development, reforestation and awareness raising were added to the plan halfway through the project, it was impossible for only one long-term expert and counterparts receiving training in Japan to complete all of the activities.

(2) Effectiveness

As mentioned above, activities were added over time and further outcomes were expected; therefore, the one expert and counterparts were unable to complete all of the activities. Having said that, the formulation of a mangrove inventory which was in the initial plan and awareness raising for conservation and rehabilitation were achieved due to the excellent skills and flexible manner of the expert.

In terms of additional outcomes, mangroves were planted in 16 of the protected areas of Farasan Island and the Arabian Gulf coast. As skills regarding reforestation and protection for the rehabilitation of vegetation were transferred, a certain level of achievement was recognized.

(3) Impact

Awareness of stakeholders concerning the issues of mangroves was raised. As a result, the issue of whether or not NCWCD would be able to continue their efforts to resolve the issues in the future became more critical than ever.

(4) Relevance

Developing an inventory of mangrove vegetation was one of the important activities to establish protected areas in coastal zones in the System Plan for Protected Areas adopted by the Saudi Arabian government. Therefore, the relevance of the cooperation was high.

(5) Sustainability

The personnel and budget of NCWCD were inadequate and, thus, the technology transfer by the expert was not fully utilized. It was considered necessary to dispatch short-term experts on a continual basis to support human resources development.

An expert teaching Seedbed development technique for counterpart

6. Lessons Learned and Recommendations

(1) Lessons Learned

While several outputs were set as objectives, inputs were limited to one long-term objective and the acceptance of one Saudi Arabian trainee. It is, therefore, important to limit the set of activities and objectives to a level which can reasonably be implemented by one expert when this is the cooperation plan.

Further public awareness and partnership with related organizations should be attempted in order to continue to promote the importance of mangrove conservation. To this end, community participation should be promoted and the support of the related organizations should be requested.

(2) Recommendations

Continuous support through the Dispatch of Experts would be necessary as the environmental sector was one of the priority areas of cooperation in the mid- and long-term vision in JICA's Country Program.

As part of the measures in the environmental field, it would be appropriate to continue technology transfer and the Dispatch of Experts in order to develop the outcomes of this project.

Awareness raising of the public needs to be a central focus, in addition to the transfer of reforestation techniques, in order to promote sustainable mangrove conservation.

7. Follow-up Situation

NCWCD had been formulating the plan for the establishment of marine protected areas along the Red Sea coast within the scope of mangrove protection in partnership with an Individual Expert as an "Advisor on Planning for the Marine Protected Areas".

Côte d' Ivoire

The Project for Development of Fishery

Project Sites Abidjan

1. Background of Project

In Côte d'Ivoire, the export of marine products and processed marine products had been increased steadily over the past 20 years. Especially, the export of tuna and bonito is quite important for obtaining foreign currency. However, Côte d'Ivoire had became less competitive in the market due to the increase in products from Southeast Asian countries. Additionally, the pollution of the saltwater lagoon area had become more serious. Thus, it became important to ensure the safety of marine products. The Government of Côte d'Ivoire requested Grant Aid from the Government of Japan to establish an institute to examine food quality with the following aims: 1) to acquire an international reputation, 2) to improve the quality of marine products and processed marine products, and 3) to stabilize the incomes of fishermen who support their families through small-scale fishing activities.

2. Project Overview

(1) Period of Cooperation

FY1989-FY1994

(2) Type of Cooperation

Grant Aid, Dispatch of Expert and Acceptance of Trainees

(3) Partner Country's Implementing Organizations

Ministry of Agriculture and Animal Resources
National Laboratory of Agricultural Development (LANADA)

(4) Narrative Summary

1) Overall Goal

Safe marine products are provided over the long term in Côte d'Ivoire.

2) Project Purpose

A system to examine the quality of marine foods is established in LANADA.

3) Outputs

a) An institute for examining the quality of fishery products is constructed.

b) Equipment for examining the quality of marine foods is provided.

c) Software for developing a data base is provided.

4) Inputs

Japanese Side

Grant	256 million yen
Short-term expert	1
Trainees received	7

Côte d'Ivoire Side

Counterparts
Local cost

3. Members of Evaluation Team

JICA Côte d'Ivoire Office
(Commissioned to Cabinet IFOR)

4. Period of Evaluation

15 February 2000-20 March 2000

5. Results of Evaluation

(1) Efficiency

The provision of equipment and facilities, and the construction of the institute were all completed according to the original plan.

(2) Effectiveness

The number of quality examinations carried out had increased steadily, from 6,100 in 1991 to 11,000 in 1999.

(3) Impact

Côte d'Ivoire received permission to export marine products to the EU in 1996. Since the institute for examination was established and awareness of the importance of quality examinations enhanced, the quantity of poor quality products decreased.

Total outputs of marine products in Côte d'Ivoire had reached around 70 thousand tons annually from 1994 to 1998, showing a gradual increase. This increase was considered to be a result of the quality improvement of the products.

(4) Relevance

The establishment of the institute for quality examination, and its scale were relevant. In fact, besides the institute, there was only one other private company that could give permission to export qualified marine products to the EU. This indicates that the institute was quite important for marine product exports for the country.

(5) Sustainability

At the time of evaluation, the number of staff was 16 which was sufficient to manage the institute. However, some of the staff, including those who were trained in Japan, subsequently left the institute or retired. It was considered necessary to take measures to enhance their motivation to work.

As to financial aspects, the institute started charging for the examination in 1992 and the payment rate from private companies was satisfactory. It was expected that they could increase their earnings from fees up to 60 percent of their total income. Although their earnings cover the minimum costs for management and maintenance of the institute, LANADA still must depend on the national budget and aid from donor countries for the upgrading of equipment and other costs.

6. Lessons Leaned and Recommendations

(1) Lessons Learned

African countries often face difficulty in ensuring a sufficient budget, with politics and limited funds both playing a part. Thus, for an institute requiring payment for services, it is important, when the project is planned, to propose that the institute be financially independent (at least regarding the cost for labor, management and maintenance) and not dependent on the national budget after the institute is established and equipped with basic facilities.

An institute for examining the quality of fishery products

The provided equipment in the physicochemical inspection laboratory

(2) Recommendations

It was judged there was no need to support the institute technically. While the Government of Côte d'Ivoire requested the Government of Japan to upgrade examination equipment, it was recommended that Japan should cautiously consider the necessity to continue cooperation, after confirming whether the management system of the institute has improved or not.

7. Follow-up Situation

Japan dispatched an expert in physicochemical analysis of fishery products, who worked to strengthen the system of quality examination from March to May 1993. In addition, Japan received seven trainees from Côte d'Ivoire in the courses on detection of toxic materials in foods and examination of imported and exported foods from 1994 to 1996.

Bolivia

Improvement of Technologies for Rice Production

Project Site Santa Cruz

1. Background of Project

Santa Cruz is an important area in Bolivia where major cereals are produced. Eighty percent of domestic immigrants comprise the majority of the area's population. Engaged in small-scale rice production by slash and burn farming, these small-scale farmers did not have the skills to cope with the problems of plant diseases, weed control and labor shortage since cultivation methods were primitive.

Therefore, the Government of Bolivia requested the Government of Japan to cooperate for research and development of technologies for rice production, aiming to establish technologies to allow small-scale farmers to increase their productivity on their own by shifting from slash and burn farming to continuous farming, based on research conducted by the Tropical Agriculture Research Center.

2. Project Overview

(1) Period of Cooperation

December 1991-December 1994

(2) Type of Cooperation

Research Cooperation

(3) Partner Country's Implementing Organizations

Ministry of Agriculture, Livestock and Rural Development
Agriculture Research Center (CIAT)

(4) Narrative Summary

1) Overall Goal
Rice Productivity of small-scale farmers is improved.

2) Project Purpose
The technology to assist farmers to shift from slash and burn farming to continuous farming is established.

3) Outputs
a) Technologies for preparing the land for planting are developed.
b) Cultivation systems are developed.
c) Technologies for control of weeds are developed.
d) Technologies for control of insect diseases are developed.
e) Technologies of crops and post-crops to rise the quality of the products are developed.

4) Inputs

Japanese Side

Long-term experts	2
Short-term experts	3
Trainees received	
Equipment	
Local cost	

Bolivian Side

Counterparts	
Local cost	

3. Members of Evaluation Team

JICA Bolivia Office
(Commissioned to Mr. Roger E. Velez Rapp)

4. Period of Evaluation

1 February 2000-30 March 2000

5. Results of Evaluation

(1) Efficiency

The quantity of inputs, such as human resources and equipment was sufficient. However, the research activities did not lead to satisfactory results due to obstacles such as poor communication between experts and counterparts

and an insufficient number of steering committee meetings to discuss the direction of research activities. Also, the department of technology extension of CIAT could not carry out its roles of verification of research results and application of developed technologies for extension, which hindered project efficiency.

(2) Effectiveness

Twenty-four research studies were conducted on 12 technologies in five fields. Among them, only seven produced results, out of which three (including a pedal threshing machine) could be applied for extension. The other 17 research studies needed to be continued to reach a satisfactory result. Thus, the project purpose had not yet been achieved.

(3) Impact

Local people were either unaware of the research activities, or they could not adopt research results to their farming activities due to economic reasons. Therefore, farmers who were engaged in slash and burn farming had not utilized the research results. The overall goal had not been achieved.

(4) Relevance

The project purpose was too ambitious for a three-year cooperation program. Farmers were unfamiliar with the project, and the research results had not yet extended to practical use in the field. As a consequence, the research results were not applied to change slash and burn farming and the overall goal was not achieved.

Moreover, the evaluation discovered that small-scale farmers were in need of irrigation facilities, financing and roads, while the issues facing them were not the preservation and quality of rice. Therefore, it was concluded that the project was not relevant to the needs of local people.

(5) Sustainability

CIAT could not afford, in terms of human resources and finances, to continue the research and extension activities on its own. After completion of the project, the research activities were not sustainable except for the research on weed control. Although pedal threshing machines were put on exhibition for demonstration for several days, other research results were not utilized for extension.

In this regard, research on breed improvement of rice quality had been conducted by Individual Experts of JICA since 1995.

Trainees receiving a lecture on slash-and-burn agriculture

6. Lessons Learned and Recommendations

(1) Lessons Learned

The project purpose needs to be set in line with the duration of the cooperation.

The cooperation for research and development should consider all elements of technological development, such as research, application and extension. Accordingly, the research should be conducted at a place where the research results can be utilized. In addition, the research should consider social and economic factors, as well as technological factors. It is important to involve experts from a broad range of fields including technological extension.

The approach must include a system which incorporates the needs and opinions of farmers and agricultural extension staff when research topics are identified so that appropriate topics are selected.

(2) Recommendations

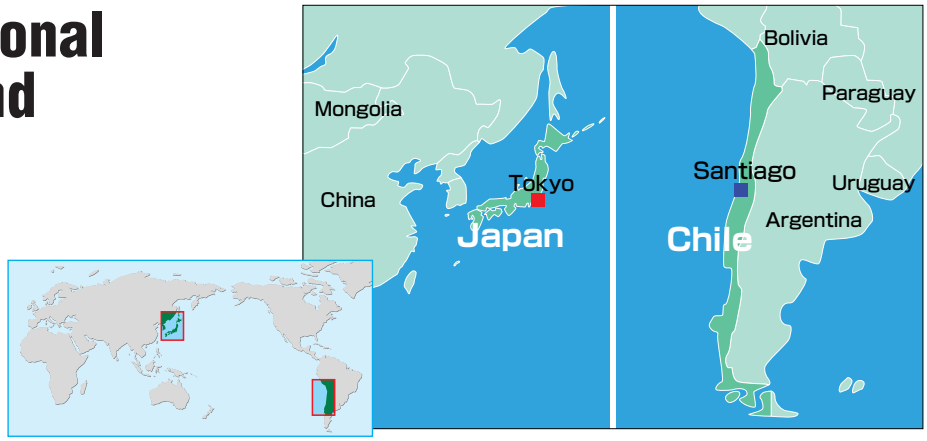
The following were recommended for the Project-type Technical Cooperation, "Project for the Dissemination of High-Quality Rice Seeds for Small-scale Farmers," which was to start in August 2000: 1) the project should focus on certain activities, in consideration of local capabilities for implementation; 2) the project should promote the direct and indirect participation of stakeholders in the target area; 3) the project should implement activities near the target area; and 4) the project should establish a system to improve project activities in response to needs.

7. Follow-up Situation

The Project-type Technical Cooperation, "the Project for the Dissemination of High-Quality Rice Seeds for Small-scale Farmers," is being implemented from 1 August 2000 to 31 July 2005.

Chile

Seminar in Regional Development and Planning



Project Site Japan

1. Background of Project

Chile had maintained a high economic growth rate while also promoting decentralization since the administration shifted to a democracy, aiming to avoid a concentration of the population in the Metropolitan area. The aim of decentralization was to correct the gap among areas by promoting local enterprises and poverty alleviation activities. It was expected that decentralization would be further promoted for the establishment of local-government autonomy. Japan started an In-country Training Program, which focused on the training of human resources in the fields of local administration and social and economic development planning, in order to assist Chile's efforts with regard to decentralization.

2. Project Overview

(1) Period of Cooperation

FY1993-FY1998

(2) Type of Cooperation

Country-focused Training Course

(3) Partner Country's Implementing Organization

Hokkaido Area Management and Support Foundation

(4) Narrative Summary

1) Overall Goal

A system for planning, coordination and promotion of local development plans is established in areas other than the Metropolitan area.

2) Project Purpose

Trainees from local governments in Chile improve their ability in regional development planning.

3) Outputs

a) Trainees understand the history of integral development, administrative mechanisms and the budgetary measures of Hokkaido.

b) Trainees acquire practical knowledge of establishing a promotion, administration and planning system for regional development.

4) Inputs

Japanese Side

Training expenses

Trainees received

Chilean Side

Local cost

3. Members of Evaluation Team

JICA Chile Office

(Commissioned to Mr. Loreto Ditzel Lacoa and Mr. Francisco Trujillo Oyarzún)

4. Period of Evaluation

January 2000-March 2000

5. Results of Evaluation

(1) Efficiency

Due to the lack of information on the cost for implementing the training, it was impossible to analyze the efficiency of the project in terms of cost performance. Lectures were not always clearly understood since trainees received explanations through a Spanish interpreter. In addition, the selection of candidates for training was not transparent. However, the project had been implemented relatively efficiently, as a whole.

(2) Effectiveness

The training course received 67 trainees for five years. The results of the questionnaire survey and interviews showed that the level of satisfaction of trainees was 93 percent on average, and that 90 percent of respondents to the questionnaire suggested that all staff engaged in regional development in Chile should participate in this training program. Furthermore, supervisors of the trainees indicated that trainees broadened their views and became more capable of making important decisions, based on a better knowledge regarding regional development. Therefore, it was concluded that the project purpose was achieved.

(3) Impact

It was difficult to evaluate the impact of the training quantitatively. However, the training had certain positive impacts on regional development in respective areas in Chile, judging from the following. Forty out of 44 (91%) trainees responding to the questionnaire still worked for regional development at the time of evaluation; 39 of 44 (89%) said they transferred knowledge they attained in the training by some means; and 70 percent of the supervisors indicated the training contributed to regional development of respective areas.

(4) Relevance

Decentralization and regional development were among the significant targets of national development of Chile. This training program was quite relevant in the sense that administrative staff engaged in regional development planning could study the theory of regional development and gain practical experience in the development process of Hokkaido.

(5) Sustainability

Sustainability of the training program was not evaluated since the training had been implemented mainly by JICA.

6. Lessons Learned and Recommendation

(1) Lessons Learned

To maximize the results of the training, it is important to involve not only the organization requesting the training but also organizations related to the field targeted by the training, after analyzing governmental organizations and their roles.

Moreover, a follow-up system for tracing the former trainees should be established.

Site visit for land recovery activities form cadmium contamination in Toyama Prefecture

Lecture on environment conservation policy at national park in Nagano Prefecture

(2) Recommendation

It was recommended that the private sector also be included in the target group since it was also considered an important player for regional development. Furthermore, targeted trainees should include not only staff from the Ministry of Planning and Cooperation, but also staff from the Ministry of Domestic Affairs and staff from city or village level governments.

Both Chilean and Japanese sides should establish a follow-up system for former trainees.

El Salvador

Technical and Industrial Institute

Project Sites San Salvador

1. Background of Project

The Government of Japan dispatched to the Technical and Industrial Institute (ITI) Individual Experts from 1964 to 1974 and Japan Overseas Cooperation Volunteers (JOCVs) from 1976 to 1979. The project was later interrupted by the outbreak of civil war. After the peace agreement in 1992, however, JOCVs were again dispatched to the ITI in 1994. ITI was one of the symbols that represented Japan's cooperation to El Salvador. One JOCV for each of the four to five departments (including computer science, automobile mechanics, machine tools, natural science, and electronics) had been constantly assigned. JOCVs had held classes for students and provided advice to their colleagues and teachers.

This evaluation covered the JOCVs dispatched and the equipment provided after 1994.

2. Project Overview

(1) Period of Cooperation

FY1994-FY2001

(2) Type of Cooperation

Dispatch of JOCVs and Provision of Equipment

(3) Partner Country's Implementing Organizations

Ministry of Education
Technical and Industrial Institute (ITI) [1)]

(4) Narrative Summary

1) Overall Goal
To educate qualified industrial engineers in order to achieve economic development and to decrease the number of unemployed.

2) Project Purpose
ITI's educational level in the industrial field is improved.

3) Outputs
a) ITI's teaching methods are improved.
b) ITI's educational facilities are improved.

4) Inputs

Japanese Side

JOCVs	10
Equipment	143 million yen

Salvadorian Side
Counterparts

3. Members of Evaluation Team

JICA El Salvador Office
(Commissioned to Ms. Maria Teresa Rendon)

4. Period of Evaluation

December 1999-March 2000

5. Results of Evaluation

(1) Efficiency

The JOCVs had been dispatched continuously according to ITI's the needs. The past cooperation, however, had not fixed the period, goal and outputs. Also, coordination among the JOCVs was not good. As for the efficiency of the JOCVs' activities, communication was difficult for the first several months after arrival at their posts due to language problems. Therefore, technical transfer during the initial period was less efficient than that later on.

(2) Effectiveness

Teaching methods were improved in four departments (machine tools, automobile mechanics, electricity and electronics) where the JOCVs were in charge of teacher training. Also, ITI came to have the best education, facilities and equipment among technical high schools in El Salvador through the cooperation. Therefore, the project purpose was almost attained.

(3) Impact

The quality of the teaching in ITI was improved and it was recognized that the school had a high technological level, which resulted in an increase in the number of employment offers to ITI students. Other impacts included the increase in enrollment and a decline in the dropout rate. However, since other similar schools did not have the necessary equipment to hold classes similar to those of ITI, the higher educational and technological level in ITI did not lead directly to the improvement of the level of educational in the other technological high schools.

(4) Relevance

Since the dispatch of JOCVs improved the quality of education at ITI, the assistance through them was relevant.

(5) Sustainability

ITI was managed relatively well. However, there was not a self-supporting system to continue improvement of the technology and level of education. Therefore, the level of education and that of machinery maintenance at ITI were expected to become lower when the dispatch of JOCVs ended.

6. Lessons Learned and Recommendations

(1) Lessons Learned

Clear goals must be established based on discussions with the partner country when dispatching JOCVs. If there were a special group responsible for the JOCVs in the partner country or in the implementing organization, it would be possible to mutually discuss policies regarding the dispatch JOCVs, ripple impacts made through the activities, and the like. This group could also provide assistance to the JOCVs, for instance, to help new arrivals adapt to local customs.

(2) Recommendations

The positive impacts brought to ITI through this cooperation did not extend to the other schools. It was considered necessary to take concrete steps to expand the effects to other schools with ITI as the core by, for example, providing students in tother schools with the opportunity to take part in ITI classes. As the department of automobile mechanics has become more popular in recent years among students in technical high schools including ITI, it was considered desirable that the cooperation be continued in this department.

A Workshop of the course on refrigerator operation

A JOCV working with counterparts using equipment provided by Japan

7. Follow-up Situation

After this evaluation, nine JOCVs including two automobile mechanic volunteers were dispatched to schools in El Salvador other than ITI.

1) Technical and Industrial Institue altered its name to National Technical and Industrial Institution (INTI).

The Projects to Raise Incomes and Standards of Living in Rural Area (Highlands)

Project Sites
(1) Teptep (Madang Province)
(2) Aiyura (Eastern Highlands Province)

1. Background of Project

The economic disparities between urban and rural areas are of great concern in Papua New Guinea. Meanwhile, "income generation in rural areas" is one of the high-priority development issues in Japan aid.

The Government of Papua New Guinea requested Japan to provide assistance through the Japan Overseas Cooperation Volunteers (JOCVs) Program to introduce vegetable cultivation into the highlands villages, surrounded by 2,000-meter mountains, aiming at the improvement of nutrition as well as the creation of income. At the same time, the Government also requested cooperation through the Expert-Team Dispatch Program aiming to improve nutrition and to increase the standard of living by promoting freshwater aquaculture in the protein deficient highlands areas.

Accommodating the requests, the Government of Japan implemented the JOCV project "Teptep Vegetable Project" and the Expert Team Dispatch Program "Highlands Aquaculture Development Project."

By conducting an ex-post evaluation of these two projects, in which income generation was a high-priority objective, this evaluation study surveyed the surrounding conditions of the highlands, assessed the effects of the cooperation, and drew lessons and recommendations for the formulation and implementation of cooperation in the future.

2. Project Overview

(1) Teptep Vegetable Project

1) Period of Cooperation
FY1991-present (ongoing)
2) Type of Cooperation
Japan Overseas Cooperation Volunteers (JOCVs)
3) Partner Country's Implementing Organization
Division of Primary Industries, Madang Province
4) Narrative Summary
a) Overall Goal
Incomes are increased in Teptep villages.
b) Project Purpose
Vegetable cultivation mainly of highland vegetables is promoted in Teptep villages.

(2) Highlands Aquaculture Development Project

1) Period of Cooperation
23 June 1996-22 June 1999
2) Type of Cooperation
Expert Team Dispatch Program
3) Partner Country's Implementing Organization
Government of Eastern Highlands Province
4) Narrative Summary
a) Overall Goal
Aquaculture in highlands areas is promoted.
b) Project Purpose
Teaching capacity of the Highlands Aquaculture Development Center is improved.

3. Members of Evaluation Team

JICA Australia Office
(Commissioned to Dames & Moore AACM International)

4. Period of Evaluation

20 February 2000-3 March 2000

5. Results of Evaluation

(1) Teptep Vegetable Project

Through the cooperation, technologies concerning the following were transferred: (1) selection of vegetable varieties suitable to the local climate, (2) cultivation techniques, (3) establishment and operation of an organization for production and marketing. As a result,

vegetable cultivation was accepted in all of the villages and villagers were able to improve their income. This was confirmed by the records of Teptep Farmers Association (TFA), the association organized to manage the transfer of cultivation techniques and production and marketing. TFA records showed an increasing trend of production and sales from 1996 to 1999.

Further, the effects of the cooperation were diffused widely to all the villages through the members of TFA, their families and community groups. The influences of the project also could be seen in the quality of clothing worn by the villagers.

This area has the most severe climatic and living conditions among the highlands areas with its high altitude, poor access and low income. There is no means of transport except airplane. There is no source of income except vegetable cultivation. It may sound paradoxical, but because village condition were so unfavorable, the cooperation could bring about the tangible effects stated above, and the significance of the cooperation was widely recognized by the villagers.

The members of TFA had already reached the level where they could manage operations on their own. Young women's groups also started cultivation. And vegetable cultivation became the means by which villagers were able to earn a stable income.

(2) Highlands Aquaculture Development Project

Various activities for improving fingerling production and training for extension workers and aquaculture farmers were efficiently implemented. Concerning fingerling production, it became possible to produce one million carp fingerlings a year. Carp cultivation techniques were disseminated efficiently through various activities such as training within and outside of Papua New Guinea, development of manuals in Pidgin English, and the distribution of newsletters. The collaboration with JOCVs also helped to foster aquaculture farmers.

Protein sources of the highlands people were limited to canned food (fish and meat) and imported mutton. However, high-fat mutton was regarded as one of the dietary problems in Oceania, and the price of imported food was rising. Under these circumstances, the project's intention to provide inexpensive good quality protein was relevant to meet the needs of nutrition improvement.

The improvement of the fingerling distribution system and the strengthening of extension activities for aquaculture farmers were considered to be important in the future. JOCV's cooperation would be significant particularly for extension activities. Further, for improving extension activities, active collaboration with external organizations such as NGOs was considered to be effective.

6. Lessons Learned and Recommendations

(1) Support for increased incomes in rural areas

Concerning the correction of disparities between urban and rural areas in Papua New Guinea, development policies tend to be piecemeal, as there is no particular government department in charge of rural development. Also, in general, the management capabilities of villages are insufficient. Other donors, therefore, directly work with local communities and NGOs to enhance their operational and management capabilities.

In this evaluation study, it was confirmed that both of the projects had successfully made contributions to smallholders income generation. It is, therefore, suggested to work directly with the local communities as these two projects have done, when the development cooperation is extended to correct regional disparities in the country in the future.

(2) Penetration of cooperation effects

The penetration of the effects of cooperation in this field in Papua New Guinea is generally recognized to be difficult. In order to deal with this difficulty, it is recommended that grassroots type cooperation be adopted, such as walk-about-training[1)] which was applied farmers training by Highlands Aquaculture Development Center or a participatory approach that brings a project much closer to the life in communities. In other words, it is important to implement a project aiming at direct benefits to the people, and avoiding an overly complicated project design. Short-term monitoring of specific targets and long-term evaluation must both be included in the design.

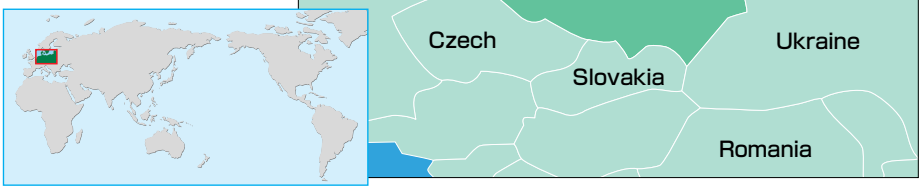
(3) Significance of the roles of women

In Melanesian society, the roles of women are of great significance, particularly regarding small-scale agricultural production activities. It is, therefore, important to plan a project incorporating the promotion of women's participation in training and follow-up activities. In addition, when a participatory training is conducted, women's participation must be carefully promoted by taking into account the potential increase in women's work and women's social position in the community.

1) Trainings held in communities close to farmers' workplaces

Poland

Japanese Language Teaching



Project Sites Poland (Nationwide)

1. Background of Project

Poland and other central and eastern European countries had promoted transition to democracy and a market economy since the downfall of the Berlin Wall in 1989. The Japanese Government also started its cooperation to support the transition. In November 1990, then Prime Minister Kaifu made a visit to Poland and Hungary. The Prime Minster's visit lead to more active bilateral relations between the two countries and Japan, which was followed by an agreement in January 1990 to dispatch Japan Overseas Cooperation Volunteers (JOCVs). Shortly following, a short-term JOCV team carried out an study of project formulation then JOCVs were sent as Japanese teachers first to universities and since 1996 to high schools and to teach extra-curricula classes.

2. Project Overview

(1) Period of Cooperation

FY1993 to date (ongoing)

(2) Type of Cooperation

Dispatch of Japan Overseas Cooperation Volunteers

(3) Partner Country's Implementation Organization

Ministry of National Education

(4) Narrative Summary

1) Overall Goal

Polish young people become more interested in and more knowledgeable about Japan.

2) Project Purpose

The number of university and high school students studying Japanese increases.

3) Outputs

Japanese classes are given.

4) Inputs

Japanese Side

JOCVs 22

Poland Side

Counterparts

3. Members of Evaluation Team

JICA Poland Office

(Commissioned to Anna Sambierska)

4. Period of Evaluation

January 2000-March 2000

5. Results of Evaluation

(1) Efficiency

Japanese teachers dispatched by the government could offer classes attractive to students, since they had received appropriate training before the dispatch. Equipment such as televisions, VCRs and photocopy machines provided through the project also enhanced the learning environment. Therefore, the inputs were considered efficient.

(2) Effectiveness

The increase in the number of Japanese classes provided Polish young people with more opportunities to understand Japanese culture, which lead to a greater interest in Japan and better knowledge about the country. Both administrators and students at the schools receiving JOCVs were satisfied with their activities, which leads to the conclusion that the cooperation goal was attained.

(3) Impact

The schools accepting JOCVs gained a positive reputation by introducing Japanese language education. A seminar room for Japanese language and culture was established in the University of Copernicus, which contributed to the forming of a Japanese education system at university level.

(4) Relevance

In Poland the interest in Japan was high. The demand for and interest in Japanese classes and extra-curricula classes were also high at university and high school level. The Government of Poland was attaching greater importance to promoting cultural exchanges and economic cooperation with Japan. In addition, the counterparts who filled out the questionnaire also requested a continuation of JOCVs' activities. Therefore, the dispatch of JOCVs in this field was relevant to the demand in Poland for Japanese language education.

(5) Sustainability

It was found that all universities and high schools except Poznan University, which had established a regular Japanese language course, would not be able to continue Japanese classes on their own. Therefore, the project's sustainability was regarded as low.

A JOCV teaching Japanese at the University of Copernicus

A JOCV in the classroom on Japanese

6. Lessons Learned and Recommendations

(1) Lessons Learned

The period of cooperation should coincide with the school semesters in the host country so as to avoid a disruption in classes when JOCV's term of service ends in the midst of a semester.

(2) Recommendations

It was recommended that information exchange among JOCVs and cooperation with other Japanese education institutes should be promoted further for more effective cooperation. Poland had few textbooks and reading materials on Japanese culture available. Since it was found that the equipment provided and the textbook made by JOCVs had contributed to making classes easy to understand, future cooperation should also provide teaching materials and equipment. It was also recommended that the students who would like to study in Japan should be supported and provided with information about studying in Japan.