

Part 3

Program-level Evaluation

Chapter 1. Program Evaluation

Chapter 2. Thematic Evaluation

Kenya

Programme for HIV Prevention

Study period: from November 2007 to September 2008



Summary of the Evaluation

The objectives of the evaluation were to examine the cooperation program called “Programme for HIV Prevention” for Kenya, which was established in June 2006, in order to produce recommendations and identify lessons learned concerning the planning and operation of the programs. Unlike the past program evaluations,^{*1} this evaluation

served as a mid-term evaluation because the subject cooperation program was already underway. Another characteristic of this evaluation was that it identified many lessons concerning the utilization of a volunteer scheme in programs because the volunteer activities constituted a significant part of the program.

Evaluation Results

Background and Objectives of the Evaluation

In recent years, JICA has been working to create and implement cooperation programs with improved aid effects. A cooperation program is a “strategic framework which aims to assist the achievement of specific medium- to long-term development goals of a developing country.”

JICA has been conducting cooperation projects in the field of HIV/AIDS prevention since FY2003 in Kenya. JICA launched a technical cooperation project called “Project on Strengthening People Empow-

erment against HIV/AIDS in Kenya (SPEAK)” in July 2006. Before starting this project, JICA created a cooperation program called “Programme for HIV Prevention” for Kenya in June 2006, as a framework for cooperation between SPEAK and other related projects.

This evaluation study was conducted with the aim of producing recommendations and identifying lessons to be learned, in order to improve the strategy for the ongoing Programme for HIV Prevention.

The program is comprised of the following projects.

	Name of the project (and scheme)	Period	Summary
1	The Project on Strengthening People Empowerment against HIV/AIDS in Kenya (SPEAK) (Technical cooperation project)	July 2006 - September 2009	Through 1) strengthening the government’s capacity to conduct monitoring and evaluation regarding HIV testing and to produce and implement an HIV/AIDS control policy, 2) disseminating information about HIV/AIDS to young people to encourage them to take HIV tests, as well as 3) improving the quality of testing and counseling at testing sites, the project aims to increase the number of people taking HIV tests, particularly targeting young people (15-24 years old). The total cost of the cooperation was 380 million yen.
2	The Project for HIV/AIDS Control (Grant aid cooperation)	FY2007 - FY2010	The project aims to support an expanded capacity to identify HIV carriers and support HIV carriers, by procuring and providing HIV testing kits. The total cost of the cooperation in FY2007 was 330 million yen.
3	HIV/AIDS Control and others (Volunteers)	FY2006 - FY2010	The volunteers are working to increase the number of people (particularly the youth) who take VCT*2 by: improving the governments’ capabilities concerning VCT service provision at the district level and below; expanding VCT services; and conducting awareness-raising activities for HIV prevention at the community level. They are also working on community empowerment by providing technical guidance for HIV carriers, in order to increase their income. About 10 volunteers are constantly deployed.
4	Blood Testing for HIV/AIDS Control (Medical equipment provision)	FY2005	Vehicles for Mobile VCT, audio-visual equipment and HIV testing kits were provided to 367 VCT centers through the District Health Management Teams (DHMTs) from six districts located in Nyanza Province and Rift Valley Province. The total cost of the cooperation was approximately 20 million yen.

The Framework and the Policy for Evaluation

Based on the cooperation program evaluation method, the program was evaluated in terms of its “contributions.” More specifically, the evaluation study examined the relationship between the program and related government policies, including Japanese policies such as the Country Assistance Program for Republic of Kenya (produced in August 2000), international initiatives such as MDGs,^{*3} and Kenya’s development policies such as the Kenya National HIV/AIDS Strategic Plan. The study also examined whether the program’s strategy was appropriate in terms of its planning, processes and results. Lastly, the study determined to what extent the program contributed to the resolution of Kenya’s development issues.

Due to the circumstances in which the program was created, the program did not go through a proper program formulation process (analyzing problem → analyzing objectives → selecting an effective combination of projects which enables flexible cooperation for problem solving between the projects). Taking this background into ac-

count, the evaluation study avoided jumping to the conclusion that “the program design is not strategic enough” even through the program does not have a clear program goal and it has inconsistencies between the constituent projects.

Based on the program documents, the program period (2005 - 2010) was considered to be subject to this evaluation. Since the grant aid cooperation Project for HIV/AIDS Control is not a JICA project, the project content was not directly subject to the evaluation. Instead, the study evaluated the project’s relevance in terms of the cooperation between the project and other JICA projects in the program, and discussed the project’s potential contribution to the achievement of the program goal. The study also analyzed the volunteer projects in terms of their deployment strategy rather than analyzing individual activities, because individual volunteers did not set clear outputs or goals.

*1. Many of the past evaluations conducted for cooperation programs served as ex-ante evaluations, in order to reorganize individual project groups into an appropriate strategic program, in preparation for restarting the cooperation under a program framework.

*2. VCT: Voluntary HIV Counseling and Testing

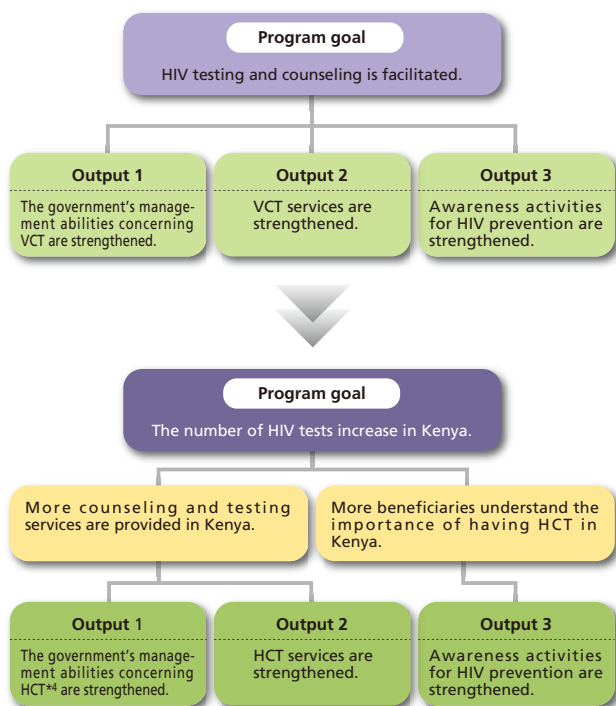
*3. MDGs: Millennium Development Goals

Evaluation Results, Lesson Learned and Recommendations

» Evaluation Results

As a result of the evaluation, it was confirmed that the program is highly aligned with Japanese and Kenyan policies and strategies, including the Country Assistance Program for Republic of Kenya, the Health and Development Initiative (HDI) and the Kenya National HIV/AIDS Strategic Plan (hereinafter called the "Strategic Plan"). It was also confirmed that the program is providing assistance to a priority field stipulated in the Strategic Plan.

The program strategy was reviewed in light of the structure of the Strategic Plan, and the reasoning connecting the program outputs and the program goal were partly revised in order to increase the consistency between the program strategy and the Strategic Plan. In this process, it was confirmed that the program should categorize its activities into activities targeting VCT service providers and activities targeting beneficiaries (see the diagrams below).



There were some good practices of cooperation between constituent projects. One example was that volunteers were dispatched to the DHMTs which were provided with vehicles and audio-visual equipment through the medical equipment provision scheme. They then conducted Mobile VCT using the vehicles and equipment, and contributed to increasing the amount of HIV testing. Another example is that the technical cooperation project SPEAK compiled a manual which was created by a Senior Volunteer when she conducted Mobile VCT in Nakuru District. The contents of the compiled manual were reflected in the national guidelines. However, this type of cooperation has not been reported since 2006. With regard to the provision of HIV testing kits through the grant aid cooperation Project for HIV/AIDS Control, the first delivery had just arrived in Kenya at the time of the evaluation and therefore it was too early to expect cooperation effects. There were no special arrangements observed which attempted cooperation between the projects.

» Lessons Learned and Recommendations from the Evaluation Study

Based on the evaluation results explained above, the study produced

the following recommendations.

Regarding planning, amending the Program Design Matrix was recommended. More specifically, it proposed indicators for outputs, outcomes and the program goal so that JICA can monitor progress, in addition to revising the reasoning behind the program scenario explained above. Regarding the technical cooperation project, there was no plan for activities directly targeting HCT service beneficiaries except for the production of radio programs. Therefore, the study recommended that the project strengthens its cooperation with the activities of other schemes and other aid organizations concerning Output 3. With regard to volunteers, the types of volunteers should be categorized into volunteers who directly contribute to the program goal and volunteers who indirectly contribute to the program goal, and they should be deployed in accordance with requests. In this way, volunteer groups can respond to diverse needs and their level of contribution can be improved. In order to deploy the appropriate type of volunteers, JICA should help the potential volunteer hosting organizations to understand the program and identify requests which can contribute to the achievement of the program goal. It is also desirable that volunteers receive more detailed information about the program at the volunteer recruiting stage and during the pre-dispatch orientation.

When implementing the program, it is effective to have meetings for liaison and coordination between the involved parties and for the progress management of individual activities. Therefore, it is important for the program to secure a budget for the cost of holding these meetings.

There are three points which should be clarified when implementing a program. Firstly, it is important to consider the ownership of a program. In the current system, a "cooperation program" is a framework shared only among the Japanese parties and it is not officially recognized by the recipient government officials who work on the individual constituent projects. The projects which constitute a program are conducted through collaboration between Japan and the partner country. Therefore, unless a program is also jointly implemented by Japan and the counterparts who are involved in individual projects in the partner country, it may be difficult to maintain the consistency between the individual projects and a program. This inconsistency in the system will need to be corrected. It is also important to share program evaluation results with the partner country's government, as part of the efforts to share program implementation power with the partner country. Secondly, the operational systems for programs should be strengthened. In the case of the Programme for HIV Prevention, for example, a short-term improvement can be made by utilizing the Program Design Matrix which includes indicators for monitoring (as proposed by the study). This improvement is expected to facilitate the consensus building needed for the operation of the program. With this improvement, it is expected that health staff members at the JICA overseas office can operate the program for the time being. However, in the medium- to long-term, it is desirable to recruit a program manager who has knowledge and skills in this field as well as excellent coordination abilities. Finally, the timing for program evaluations should be reviewed. It will be more realistic to set the schedule for program evaluations while considering the timing for project evaluations, because when program designs are corrected in accordance with the program evaluation results, the implementation plans and designs for the constituent projects will also need to be corrected accordingly. It is also desirable to consider in the future the possibility of conducting the project-level evaluations and the program evaluations simultaneously, in order to increase efficiency.

*4. HCT: HIV Counseling and Testing

Morocco

Water Resources Program

Study period: from December 2007 to May 2008



Summary of the Evaluation

Japan has implemented cooperation for various water-related development issues in Morocco such as water resources development and management, urban and rural water supply, sewerage systems, etc., through three schemes, namely technical cooperation, ODA loans and grant aid cooperation. These cooperation projects were loosely grouped and the goal for the group was not set when the projects started. With the expectation that the inauguration of New JICA

would bring about synergy effects for different schemes, the evaluation study reorganized the ongoing projects in the water supply and sewerage area into a program. The study also conducted monitoring in order to examine the cooperation between the projects and the relevance of the program structure, as well as identifying lessons to be learned and making recommendations for future cooperation.

Evaluation Results

Background and Objectives of the Evaluation

In the Japan's ODA for Morocco, "water resources development for agricultural water supply and drinking water supply" is considered a priority area and various cooperation projects have been implemented in this field through technical cooperation, ODA loans and grant aid cooperation. The cooperation projects have dealt with various water-related issues, including water supply and sewerage systems,

irrigation and integrated water resources management for specific watersheds. In particular, many projects have been conducted for water supply and sewerage systems. The evaluation study reorganized the projects for water supply and sewerage systems into one program and examined the importance of the program in government policies, as well as examining its strategy and outputs.

The Framework and the Policy for Evaluation

The evaluation study examined the cooperation projects in the water supply and sewerage area in Morocco for 1999-2012. Table 1 on the next page shows the 15 projects subject to the study.

The program goal was set as "a safe and stable water supply." The study was conducted using the following procedures.

- (1) Confirm the consistency of the program with regard to Japanese government policy and Moroccan government policy.
- (2) Examine the strategy (consistency and outputs) of the program.
- (3) Confirm the results achieved by the program to date.
- (4) Examine the potential contributions of the water supply and the sewerage projects to the achievement of the program goal.

Evaluation Results, Lesson Learned and Recommendations

The evaluation study results confirmed that the program content met Japanese Government's country assistance policy, the basic ODA policy for the Middle East, the JICA Country Program, as well as complying with Morocco's Water Law (which is the basis for the development strategy in the water sector) and the 5-Year National Development Plan. Therefore, it was confirmed that the program is consistent with the policies and strategies of the Japanese government and the Moroccan government. For future cooperation in the water sector in Morocco, the study pointed out that the changes in the policies and priority issues of the Moroccan government for the water sector, such as an increased focus on integrated water resources management, should be taken into consideration.

Regarding the program strategy, the program does not have the most appropriate strategic structure or implementation methods for achieving the program goal since the program framework was only created for the sake of evaluation study implementation. Nevertheless, some significant cooperation between the constituent projects was observed. For example, a technical cooperation project increased the sustainability of rural water supply facilities which were conducted as grant aid cooperation projects. Long-term experts in the technical cooperation project were also cooperating with grant aid for grassroots cooperation. Active information sharing between

the ODA loan projects and other constituent projects was also observed. The Moroccan government had strong ownership of the projects and various donors, including the Japanese government, carefully considered the Moroccan government's intentions when formulating projects. This resulted in close cooperation and coordination between the projects as well as among the donors.

Individual projects (completed ones and ongoing ones) are also producing positive results. As of 2008, the number of beneficiaries in the project areas has already reached the targets set for 2012, which is the final year of the period subject to the evaluation study. Therefore, the program as a whole is greatly contributing to the achievement of the goal of PAGER (Program for Rural Water Supply). The program also contributed to the initial stage of the Moroccan sewerage program whose implementation was falling behind, and continuous cooperation in this area is expected. With respect to the technical cooperation project for the above-mentioned rural water supply, the project provided a solution to the problem of creating a system for sustainability of rural water supply projects and therefore it further increased the program effects.

To attain the program goal, the evaluation study concluded with the following remarks.

- In Morocco, the ongoing water sector policy reforms are aiming at

strengthening the watershed-level water resources management systems in addition to improving water usage efficiency, ground-water conservation and water quality.

- In response to this situation, Japan's cooperation in the water sector should be expanded to focus on integrated water resources management as well as water supply.
- Therefore, the program goal and the program components should expand their scope so that they can cover the whole water sector including (1) water resource management, (2) water usage, (3) water environment conservation and (4) watershed environment management), based on the priority policies and project content dealt with in the Moroccan government's water sector reforms.

The evaluation study report stated the three lessons learned from the study, as described below.



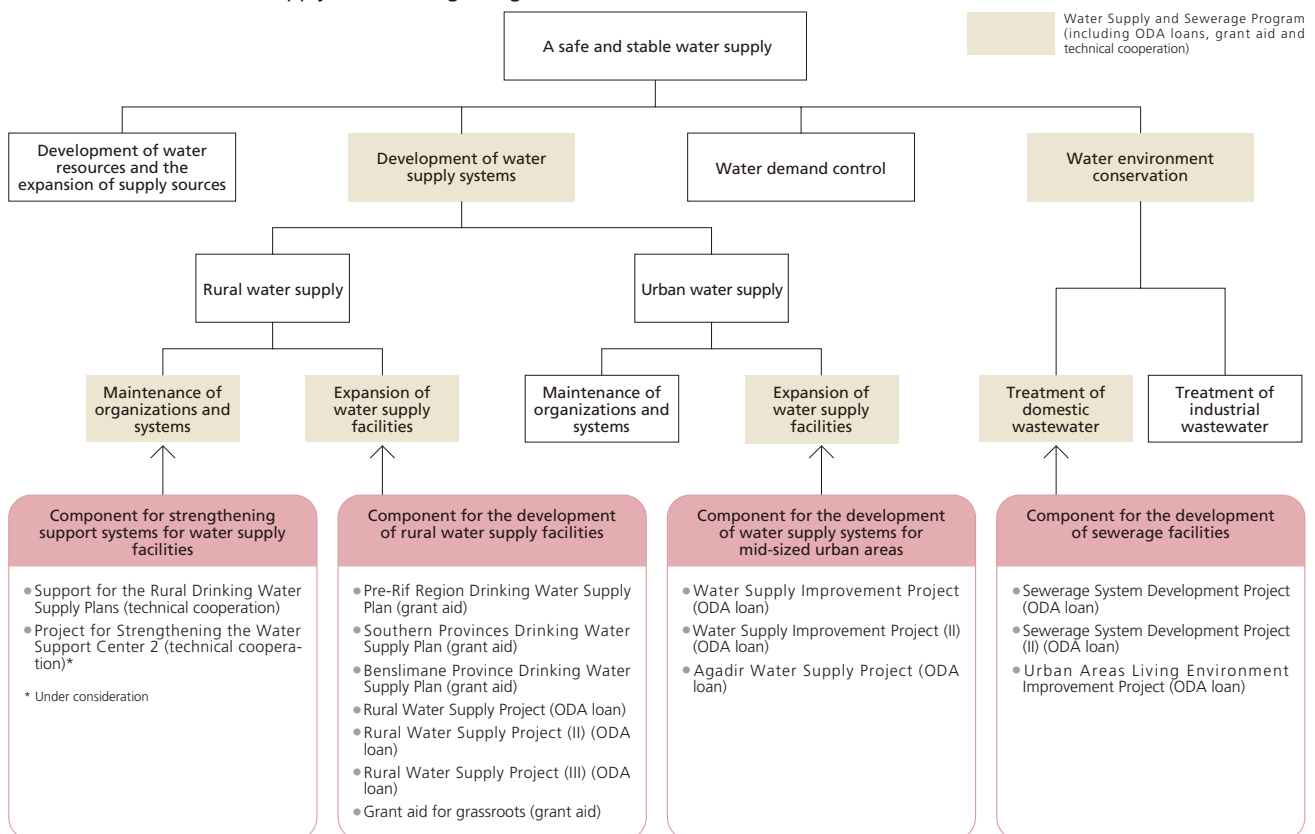
Rural water supply: residents maintaining a well constructed by the program

- (1) The necessity of strengthening the program management and operation system, and the importance of recruiting a program manager who will manage the whole program.
 - (2) The need for the development of a database that will be utilized for the sustainable operation of the facilities developed through grant and loan assistance, and for the realization of a stable water supply
 - (3) The necessity of considering the environmental impact of future wastewater increases due to the growing number of rural households that are directly connected to water supply systems
- Finally, regarding the planning and implementation phases of the program, the study report pointed out the importance of strengthening cooperation between related projects, and the importance of recognizing the Moroccan government's ownership of the program.

Table 1 List of Projects Constituting the Water Supply and Sewerage Program

Project name	Scheme	Implementation period
1. Component for the development of water supply systems for mid-sized urban areas		
Water Supply Improvement Project (I)	ODA loan	1995-2002
Water Supply Improvement Project (II)	ODA loan	1997-2009
Agadir Water Supply Project	ODA loan	2001-2008
2. Component for the development of rural water supply facilities		
Pre-Rif Region Drinking Water Supply Plan	Grant aid	1998-1999
Southern Provinces Drinking Water Supply Plan	Grant aid	2000
Benslimane Province Drinking Water Supply Plan	Grant aid	2005
Rural Water Supply Project (I)	ODA loan	2000-2007
Rural Water Supply Project (II)	ODA loan	2000-2009
Grant aid for grassroots	Grant aid	2000/2001
Rural Water Supply Project (III)	ODA loan	2008-2013
3. Component for strengthening the support systems for water supply facilities		
Support for the Rural Drinking Water Supply Plans	Technical cooperation	2005-2007
Project for Strengthening the Water Support Center 2	Technical cooperation	After FY2008 (under consideration)
4. Component for the development of sewerage facilities		
Sewerage System Development Project (I)	ODA loan	2005-2013
Sewerage System Development Project (II)	ODA loan	2007-2014
Urban Areas Living Environment Improvement Project	ODA loan	2007-2014

Structure of the Water Supply and Sewerage Program



Pakistan and Indonesia

Synthesis Study of Evaluation: Emergency Disaster Relief Activities

Study Period: from March 2007 to August 2007



Summary of the Evaluation

Background and Objectives of the Evaluation

In recent years, there have been calls for the appropriate and objective evaluation of emergency disaster relief activities* with the aim of conducting effective and efficient relief activities. However, due to the nature of emergency relief operations, it was difficult to employ the evaluation method used for technical cooperation projects. Therefore, JICA needed to establish a different evaluation method which is suitable for the different types and characteristics of the activities. JICA has therefore produced the Evaluation Guideline for the Japan Disaster Relief Team (“STOP the pain”) in FY2002 and the Evaluation Guideline for the Japan Disaster Relief Expert Team (“LOCK

the pain”) in FY2003, and has carried out the evaluations based on these guidelines.

The thematic evaluation study examined and analyzed the past seven emergency disaster relief activities individually as well as collectively (the first evaluation conducted in FY2006). Based on the evaluation and analysis results, the study produced recommendations and summarized lessons learned from the study, in order to improve future emergency disaster relief activities and their evaluation methods (the second evaluation conducted in FY2007).

Evaluation Framework

1. Scope of Evaluation

In FY2006, the evaluation study examined the emergency disaster relief activities for seven disasters individually: (1) the earthquake disaster in Iran in 2003; (2) the earthquake disaster in Morocco in 2004; (3) the earthquake off the coast of Sumatra causing the Indian Ocean Tsunami in 2004; (4) the Indonesian Nias Island Earthquake disaster in 2005; (5) the earthquake disaster in Pakistan in 2005; (6) the Indonesian Central Java Earthquake disaster in 2006; and (7) the Oil Spill disaster off Guimaras Island, in the Philippines in 2006. The evaluation study selected the dispatch of a “Search and Rescue Team” and a “Medical Team” for (5) the Pakistan Earthquake disaster, and the dispatch of a “medical team” for (6) the Central Java Earthquake disaster in Indonesia. The study then conducted surveys in Japan and in the relevant countries.

2. Evaluated Points

The above-mentioned two operations were evaluated through a literature review and interviews with domestic and overseas involved parties, based on the four evaluation items stated in the “Evaluation Guideline for the Japan Disaster Relief Team (STOP the pain)” (shown below) and additional evaluation items.

Four Evaluation Items of the “STOP the pain”

- **Speed (prompt action)** Did the team promptly act after the dispatch was decided, in the departure phase in Japan, in the arrival phase at the activity site, up to the start of its activities?
- **Target groups (meeting the affected people's needs)** Did the team fully understand the victims' needs and appropriately act to meet the needs?
- **Operation (activity efficiency)** Did the team fully utilize the input resources (team members, equipment, materials, etc.) to produce results?
- **Presence (degree of acknowledgment)** Were the team's activity and results fully recognized by the public (including the victims), the affected country's government, international organizations and other donor countries?

Evaluation Results

1. Results of the Evaluation of the Emergency Disaster Relief Activities for the Pakistan Earthquake Disaster

Outline of the Pakistan Earthquake

Occurrence of the earthquake: 8:50 a.m. (local time), Saturday, October 8, 2005

Epicenter: 105 km north-northwest of Islamabad, Pakistan **Scale of the earthquake:** M7.6

Scale of the disaster: 73,338 dead, 128,304 injured, about 500,000 households affected, 400,152 houses destroyed

● **Speed:** Transit of the “Medical Team” from Japan to Pakistan took time because they had to use commercial flights. They also met difficulties in transporting personnel, equipment and materials from the arrival point to the remote mountain area. Nonetheless, both teams were able to respond to the Pakistani government's request promptly and reached the site before any other foreign support teams.

● **Target / Operation:** “Search and Rescue Team” which was dispatched first had no information about the site in advance and did not anticipate having to do search and rescue operations in a remote rural area. However, it carried out operations which met the expectations of the Pakistani government and local residents, through co-

operation with the Pakistani army and through cooperation within the team.

The “Medical Team” was able to prepare for its activities based on the information about the situation at the site obtained from the advance “Search and Rescue Team” and they were therefore able to provide quality emergency medical services that met the local needs.

● **Presence:** There were fewer members of the media than in the disaster areas in large cities since the activity site was in a remote mountain area. However, the team received favorable press coverage, expressions of gratitude and encouragement, so the team's presence can be evaluated as not insignificant.

*Emergency disaster relief activities include the dispatch of Japan Disaster Relief Teams (JDRs) and the provision of disaster relief supplies for natural disasters and man-made disaster (except for disasters caused by conflicts).

<From the Results of the Interviews at the Activity Site>

The study interviewed victims injured by the earthquake and their family members in Battagram in the North-West Frontier Province (NWFP), where the "Medical Team" worked. Many people appreciated the team's activities as can be seen from the following comments, "I thank them because they started their preparations in the early morning and provided treatment until it went dark" and "The service was accessible" (some people were repeatedly treated for their wounds). It was therefore confirmed from the interviews with local residents that the team provided emergency medical aid which met the needs of the people in the remote and mountainous rural area which was difficult for other relief teams to access.

2. Results of the Evaluation of the Emergency Disaster Relief Activities for the Central Java Earthquake Disaster in Indonesia**Outline of the Central Java Earthquake in Indonesia**

Occurrence of the earthquake: 5:53 a.m. (local time), Saturday, May 27, 2006

Epicenter: 37.2 km south-southwest offshore of the Special Region of Yogyakarta, Indonesia **Scale of the earthquake:** M6.3

Scale of the disaster: 5,778 dead, 137,883 injured, 699,295 people lost their house, 2,340,745 affected

● **Speed:** The "Medical Team" left Japan within 48 hours of the decision to dispatch the team. No time was wasted during the journey from Japan to Indonesia, and they were able to start their activities in the affected area without any problems. Therefore, it is considered that the initial phase was speedy.

● **Target / Operation:** The investigation team was dispatched before the "Medical Team" and they established an activity station in front of the main hospital in the affected area which was easy for the victims to access. The "Medical Team" then established a cooperative relationship with the hospital and they were able to conduct activities which met the victims' needs by effectively utilizing personnel, equipment and materials.

● **Presence:** The presence was high because the team's activity site was visited by many Indonesian and overseas media, as well as by Japanese lawmakers and Indonesian government officials.

<The Spillover Effects of the Disaster Relief Activities>

- The Creation of an Emergency Medical Team in the Muhammadiyah Hospital -

After the "Medical Team" left the affected area, the Muhammadiyah Hospital (which is the largest hospital in the district that the team was working in) was inspired by the JDR efforts to create its own emergency medical team. The hospital's emergency medical team is providing training for interested people, as well as conducting aid operations in flood disaster areas in Indonesia. Some people told the study team that they want Japanese teams to conduct training on emergency medical services for the hospital staff.

Lessons Learned and Recommendations

Based on the results of the collective analysis on the evaluations of the seven activities (which were compiled in FY2006) and the results of the case studies discussed above, the thematic evaluation study identified the lessons learned and produced recommendations for more effective and efficient emergency disaster relief activities, as shown below.

Lessons Learned and Recommendations Regarding Emergency Disaster Relief Activities

● **Speed:** It is important that the activities meet the victims' needs and for the teams to be promptly dispatched, as well as selecting the appropriate activity sites and starting the activities quickly. In order to make further improvements, the utilization of chartered flights should be considered. It is also important to consider suitable methods for transporting equipment and materials within the affected areas.

● **Target:** For the determination of whether the dispatch of the "Search and Rescue Team" can meet the affected people's needs and whether the team can select the appropriate activity sites, it is important to improve the ability to collect and analyze information.

As the case studies in Pakistan and Indonesia showed, the "Medical Team" established their activity station near the area's central hospital and cooperated with the hospital, and this led to the seamless hando-

ver of the treatment activities to the hospital after the team withdrew. Therefore, it is important to consider cooperation with central hospitals in activity areas when selecting the site for the activity station.

● **Operation:** It is important for the involved parties to recognize that support and cooperation from relevant embassies, JICA offices, etc. is essential for efficient activities in affected areas. In recent years, the need for the expansion of treatment capabilities including surgeries has increased. It will be necessary to strengthen its logistics system such as transportation methods, in order to provide expanded emergency medical services.

● **Presence:** In order to ensure further JDR presence, it is important to vigorously disseminate information based on a PR strategy. Providing more information from the activity sites should be considered, for example by dispatching personnel dedicated to PR activities.

Recommendations on the Revision of the JDR Evaluation Guidelines**1. The Items to be Evaluated and the Scope of the Evaluations**

Discussions are needed for setting the detailed points to be examined, the establishment of criteria, clarification of the scope of the evaluations, etc. which are needed to analyze the four individual evaluation items.

2. Timing of the Evaluations

The current guidelines stipulate that evaluations should be conducted four times (starting from before the teams are dispatched to when the teams return to Japan). Setting a more appropriate schedule for the evaluations and reviewing the number of evaluations should be considered so that evaluations can be conducted within a limited period of time in disaster areas where the situation can change rapidly.

3. Basic Information for the Evaluations

JICA needs to establish a system which can manage the entire operation for gathering essential information, entering data, and sharing and utilizing the information among the involved parties. Furthermore, they should also consider recruiting personnel who will not be part of the JDRs. These personnel will concentrate on monitoring the activities, including gathering information.

Bolivia, Vietnam and Bangladesh

Health Referral System

Study period: from February 2007 to September 2007



Summary of the Evaluation

The thematic evaluation systematically and comprehensively examined past cooperation projects which dealt with the development of “health referral system*” in Bolivia, Vietnam and Bangladesh. The evaluation looked at (1) the patient referral system, (2) the improvement of accessibility to medical services for people in remote areas, and (3) the transfer of information, knowledge and technology. A cross-cutting analysis of the three countries was conducted from these three evaluation points. The study also analyzed the processes of cooperation for the development of a referral system. Through the multilateral analysis, the study identified important points for im-

plementing cooperation projects in this field. The study also demonstrated the importance of identifying methods which meet the priorities of subject countries and regions, in order to select and focus on the appropriate targets based on the characteristics of the country/region while using limited aid money. Regarding the analysis of cooperation processes, the cooperation processes were categorized into the urban center type and the rural deployment type, based on the differences between urban areas and rural areas, the population density and the accessibility of medical services.

Evaluation Results

Background and Objectives of the Evaluation

Due to continuous improvements in maternal-and-health services and the strengthening of infection control, JICA has established the improvement of health systems that provide health services as an important issue. Since referral systems that connect tertiary, secondary and primary medical facilities are an important pillar for health-service delivery from central to distant rural areas, JICA implements projects that maintain referral systems connected to rural areas where the health services cannot easily be extended from hospitals, and that contain elements to improve referral systems through the functional enhancement of each medical facility. Since there are di-

verse states of referral systems according to the context of the politics, economy, geographical conditions, etc., in the recipient countries, JICA has also been providing cooperation via various means of deployment based on the situation in each country. Against this background, this evaluation survey examined the track record of cooperation concerning referral system improvements. It also aimed at systematically and comprehensively extracting lessons to be learned, and then considered the recommendations and the lessons learned for effective and efficient project implementation in the future.

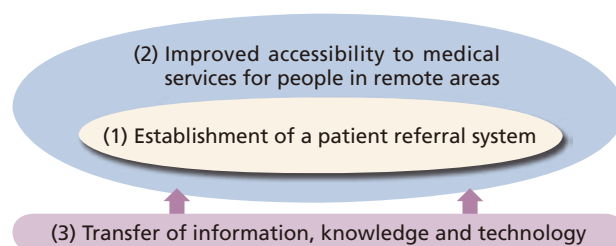
The Framework and the Policy for Evaluation

The study selected groups of cooperation projects in the health sector in Bolivia, Vietnam and Bangladesh, which are typical examples of JICA’s cooperation for referral system development. The study then conducted surveys in Japan and in the partner countries.

The evaluation study defined a referral system as described below and used the definition as a criterion for the evaluation. Generally, a referral system is defined as (1) the transfer and care of patients from a primary medical facility to a tertiary care facility for serious cases, and from a tertiary care facility to a rehabilitation facility in cases of convalescence. In addition to this general definition, the study added (2) the enhancement of accessibility to health services through the extension of coordination among health facilities to remote areas. And as a factor supporting the connection between medical facilities and remote areas, (3) the transference of information, knowl-

edge, and technology concerning the improvement of referral systems is an indispensable element and considers the referral system in the broad sense of this evaluation.

■ Diagram Showing the Definition of a Referral System



* A health referral system generally means a cooperation system between hospitals where the patients who cannot be treated at lower-level medical facilities (such as primary healthcare facilities) are referred to higher-level medical facilities (secondary- and tertiary healthcare facilities).

Evaluation Results, Lesson Learned and Recommendations

[Results of a cross-cutting analysis based on the viewpoints of the evaluation]

Based on the three evaluation points explained in the definition of a referral system, the study conducted cross-cutting analyses for the three countries that were examined as case studies. In addition, the study analyzed the cooperation processes concerning referral system development.

a) Results of the Evaluation of the Points Shown in the Definition of a Referral System

(1) Patient Referral Systems

- The introduction of referral forms and the establishment of trusting relationships among hospitals and related organizations are the keys to strengthening referral systems. Coordination between hospitals and patient transport systems also helps smooth acceptance by the referred patients.
- Granting medical equipment appropriate to the level of the facilities and conducting training for medical personnel on clinical and testing techniques, thus making it possible to provide medical / health services at each level.
- Removing mental barriers is an important factor for improving the users' access to medical services, such as improving the attitude of medical personnel towards patients. Concerning the patients' selection of the first place to consult when they have a medical problem, having medical facilities in easy-to-access locations is an important factor as well as having the right type of medical facilities.

(2) Improvement of Accessibility to Medical Services for People in Remote Areas

- Strengthening primary-care facilities and mobile clinics as the community's first contact with health care services helps ensure people's access to health care services in remote areas. It is also beneficial to encourage community participation in health promotion as a disease prevention measure at the community level.
- Facilitating resident participation is an effective way to promote disease prevention in the entire community.
- The introduction and improvement of medical insurance plays an important role in securing people's financial accessibility to medical / health care services.

(3) Transfer of Information, Knowledge and Technology

- Establishing training systems from upper to lower-level medical facilities helps establish trusting relationships among medical personnel, and it helps strengthen patients' referral between facilities. Training, guidelines and manuals are effective tools for transferring skills and knowledge.

b) Evaluation Results on Cooperation Processes

In cities, where the population is concentrated, strengthening upper-level hospitals is the first priority. After this is completed, these strengthened hospitals then transfer medical skills to the lower levels. This top-down approach ultimately establishes a referral system. In rural areas, where the population is scattered, the first priority is to secure people's access to health services in remote areas. In the process of upgrading health services for all, coordination with upper-level hospitals is inevitable. Establishing such coordination ultimately develops into a referral system.

[Lessons Learned]

Based on the results of the cross-cutting analysis, the study identified important components in cooperation projects working on referral systems development, as shown below.

Evaluation point	Important components
(1) Patient referral system	a. Coordination among the stakeholders b. Means of transferring patient information c. Coordination with emergency systems d. Sufficient medical facilities and equipment e. Support to secure operational costs f. Strengthening of diagnostic skills g. Appropriate deployment of primary-care facilities and infrastructure
(2) Improvement of accessibility to medical services for people in remote areas	a. Establishment of a primary-care facility as the first point of contact b. Service delivery to remote areas c. Community participation d. Health insurance
(3) Transfer of information, knowledge and technology	a. Case conference and feedback system b. Guidelines and manuals c. Technical transfer of clinical practices

It is important to discuss how support should be provided for the identified components mentioned above, in order to select and focus on the appropriate targets from a long-term perspective, using the limited aid budget and based on the characteristics of the partner

country / region. The results of the cross-cutting analysis classified the cooperation processes into two types, namely a) the urban center type and b) the rural deployment type. They are classified based on the differences between urban areas and rural areas, the population density and the accessibility of medical services.

a) Urban Center Type

In urban areas where the population is concentrated, infrastructure and transportation are generally well-developed and therefore people's physical access to health services is most likely secured. In such cases, the first step to be taken is to strengthen upper-level hospitals. When the demand for medical service increases as a result of economic development or population expansion in the urban areas, the appropriate allocation of health / medical resources and expansion of the capacity of lower-level hospitals must be considered.

The key point for cooperation in urban areas is the implementation of some form of measure that can decrease the number of patients bypassing lower-level facilities to go to upper-level hospitals. One example is the utilization of referral forms for fee exemption for first-time visits, and another is the utilization of health insurance. Strengthening lower-level facilities with such measures helps establish or improve the referral system as a whole.

b) Rural Deployment Type

The key for cooperation in rural areas is to secure people's access to basic health services. Existing medical resources, such as village doctors, traditional healers, and traditional birth attendants, are effective because they are trusted by the community. After securing people's access to primary-care facilities, coordination with upper-level facilities will be needed to provide higher-level services. In this process, establishing coordination meetings and introducing referral forms will build coordination between hospitals and ultimately establish the referral system.

Thailand

Environmental Impact Assessment for the MRTA Initial System Project (Blue Line)

Study period: from August 2007 to March 2008



Summary of the Evaluation

This thematic evaluation study proposed a method to quantitatively estimate the environmental load and environmental benefit of an infrastructure development project, based on the idea of life cycle assessment (LCA). The evaluation study then employed this method to evaluate the MRTA Initial System Project (Blue Line) which was designed to mitigate environmental problems including air pollution in the area. The study also introduced the idea of environmental ac-

counting which converts the environmental impact into a monetary value in order to assess the environmental impact.

This evaluation study is proposing a new framework for analyzing the relationship between transportation problems in metropolitan areas and their environmental impact, and shows one possible direction for environmental impact assessments (EIAs) on large-scale infrastructure development projects.

Evaluation Results

Background and Objectives of the Evaluation

In developing countries, environmental regulations are not keeping up with rapid economic development and so environmental problems such as air pollution are becoming more severe. The MRTA Initial System Project (Blue Line) which is subject to the evaluation is a subway construction project in central Bangkok as part of the development of a mass transit railway network. The project was designed to mitigate environmental problems such as air pollution and to mitigate traffic congestion in Bangkok which is continually worsening, as well as realizing the smooth and efficient movement of people.

The idea of life cycle assessment (LCA) is increasingly utilized in EIAs for air pollutants. However, LCA is originally designed to com-

prehensively assess the environmental impact of industrial products at all stages of their lifecycle (i.e. the manufacturing, the utilization and the disposal stages). Therefore, in order to conduct an EIA for the development of infrastructure (which has different characteristics from industrial products) based on LCA, a different method needs to be developed.

The evaluation study developed a quantitative method which can comprehensively assess both the environmental impact and the environmental benefits of an infrastructure development project, based on the LCA concept. The study then carried out the EIA for the MRTA Initial System Project (Blue Line), using the developed method.

The Framework and the Policy for Evaluation

Figure 1 summarizes the evaluation method for the environmental load and benefit of infrastructure developments, which was used in the evaluation. This evaluation method takes into consideration the life cycle of an infrastructure, and considers the construction stage and the operation stage as the period subject to the EIA. Regarding the environmental impact evaluation, the method is divided into the "local impact assessment method" focusing on the direct environmental impact caused by an infrastructure development project, and the "global impact assessment method" focusing on the environmental impact considering the whole effect caused by all industrial activity that is related to an infrastructure development project. The assessment for the "global impact category" therefore estimates the amount of each substance which has an environmental impact that is emitted by all the project-related elements at their production, distribution and consumption stages. On the other hand, the assessment for the "local impact category" estimates the amount of each substance which has an environmental impact that is emitted by the project-related elements at their consumption stage only (such as CO₂ emitted by construction machinery or cars).

In addition to the environmental load, the evaluation method takes into consideration the environmental benefits (positive effects on the environment) of an infrastructure development project. Therefore, the evaluation method examines both the environmental load and the benefits of an infrastructure development project. In this evaluation method, the estimated emission of each substance which has an environmental impact is converted into a monetary value (environmental cost) using the damage cost* per unit.

In this thematic evaluation, the study limited its evaluation scope to the following elements. Regarding the environmental load, the study estimated the emission of each substance that has an environmental impact (CO₂, SO₂ and NO₂) which is derived from the utilization of materials, fuel and electric power in the construction stage and in the operation stage of the MRTA Initial System Project (Blue Line). Regarding environmental benefits, the study estimated the reduced emission of each substance which has an environmental impact, which is derived from the reduced vehicle traffic around the relevant area due to the operation of the subways in Bangkok.

* Paying compensation for the emission of substances which have an environmental impact has become more widespread in recent years, as can be seen with the CO₂ emission trading. This compensation is called the damage cost.

Evaluation Results, Lesson Learned and Recommendations

Tables 1 and 2 show the CO₂, SO₂ and NO₂ emissions estimated for the global and local impact categories in the construction and the operation stages of the Bangkok subways. In infrastructure development projects such as subway construction, the environmental load at the construction stage is often emphasized, but the environmental load at the operation stage is actually bigger because it has a long-term impact. Therefore, it is important to evaluate the overall impact including the construction and the operation stages.

Table 1 Estimated Environmental Load at the Construction Stage

	Amount used	Global impact category			Local impact category		
		CO ₂ emission	SO ₂ emission	NO ₂ emission	CO ₂ emission	SO ₂ emission	NO ₂ emission
Concrete	2,230 (×10 ³ t)	457 (×10 ³ t-CO ₂)	221 (t-SO ₂)	1,028 (t-NO ₂)	0 (×10 ³ t-CO ₂)	0 (t-SO ₂)	0 (t-NO ₂)
Reinforcing bars	180 (×10 ³ t)	170 (×10 ³ t-CO ₂)	270 (t-SO ₂)	608 (t-NO ₂)	0 (×10 ³ t-CO ₂)	0 (t-SO ₂)	0 (t-NO ₂)
Fuel (diesel oil)	36.6 (×10 ³ t)	110 (×10 ³ t-CO ₂)	161 (t-SO ₂)	728 (t-NO ₂)	97.3 (×10 ³ t-CO ₂)	95.9 (t-SO ₂)	644 (t-NO ₂)
Electric power	41.2 (×10 ⁶ kWh)	23.2 (×10 ³ t-CO ₂)	19 (t-SO ₂)	25.3 (t-NO ₂)	5.77 (×10 ³ t-CO ₂)	8.53 (t-SO ₂)	14.4 (t-NO ₂)
Total missions		760.2 (×10 ³ t-CO ₂)	671 (t-SO ₂)	3,034.10 (t-NO ₂)	103.1 (×10 ³ t-CO ₂)	104.4 (t-SO ₂)	658.4 (t-NO ₂)

Table 2 Estimated Environmental Load at the Operation Stage

FY	Electric power used	Global impact category			Local impact category		
		CO ₂ emission	SO ₂ emission	NO ₂ emission	CO ₂ emission	SO ₂ emission	NO ₂ emission
2004	119	67.1	54.9	73.1	16.7	24.6	41.6
2005	120	67.7	55.3	73.8	16.8	24.8	42.0
(Omitted)							
2033	201	113.3	92.7	123.6	28.1	41.6	70.4
	(×10 ⁶ kWh)	(×10 ³ t-CO ₂)	(t-SO ₂)	(t-NO ₂)	(×10 ³ t-CO ₂)	(t-SO ₂)	(t-NO ₂)
Total		2,782.40	2,274.30	3,034.10	690.7	1,021.20	1,726.70

Table 3 shows the reduced CO₂, SO₂ and NO₂ emissions (environmental benefit) derived from less vehicle traffic in the relevant area due to the operation of the Bangkok subways, for the global and local impact categories. There is only a small difference between the environmental benefit and the environmental load (shown in Table 2) for the global impact category. Therefore, the operation of the Bangkok subways does not have a negative impact on the environment at the global level.

Table 3 The Estimated Environmental Benefit at the Operation Stage

FY	Fuel reduction	Global impact category			Local impact category		
		CO ₂ emission	SO ₂ emission	NO ₂ emission	CO ₂ emission	SO ₂ emission	NO ₂ emission
2004	9.9 (×10 ³ kL)	28.6 (×10 ³ t-CO ₂)	27.3 (t-SO ₂)	60.5 (t-NO ₂)	23.1 (×10 ³ t-CO ₂)	0.35 (t-SO ₂)	25.6 (t-NO ₂)
2005	11.2 (×10 ³ kL)	32.2 (×10 ³ t-CO ₂)	30.7 (t-SO ₂)	68 (t-NO ₂)	26 (×10 ³ t-CO ₂)	0.394 (t-SO ₂)	28.8 (t-NO ₂)
(Omitted)							
2033	25.9 (×10 ³ kL)	74.7 (×10 ³ t-CO ₂)	71.1 (t-SO ₂)	158 (t-NO ₂)	60.2 (×10 ³ t-CO ₂)	0.913 (t-SO ₂)	66.6 (t-NO ₂)
Total		1,736 (×10 ³ t-CO ₂)	1,680 (t-SO ₂)	3,727 (t-NO ₂)	1,422 (×10 ³ t-CO ₂)	21.6 (t-SO ₂)	1,575 (t-NO ₂)

Figure 2 shows the estimated reductions and the estimated emission of each substance which has an environmental impact (CO₂, NO₂ and SO₂) derived from the MRTA Initial System Project (Blue Line) for the global and local impact categories. The results of the estimation of the environmental benefit / load derived from the MRTA Initial System Project (Blue Line) change depending on whether one looks at the global impact category or the local impact category.

Figure 1 Summary of the Evaluation Method for Environmental Load and Benefit

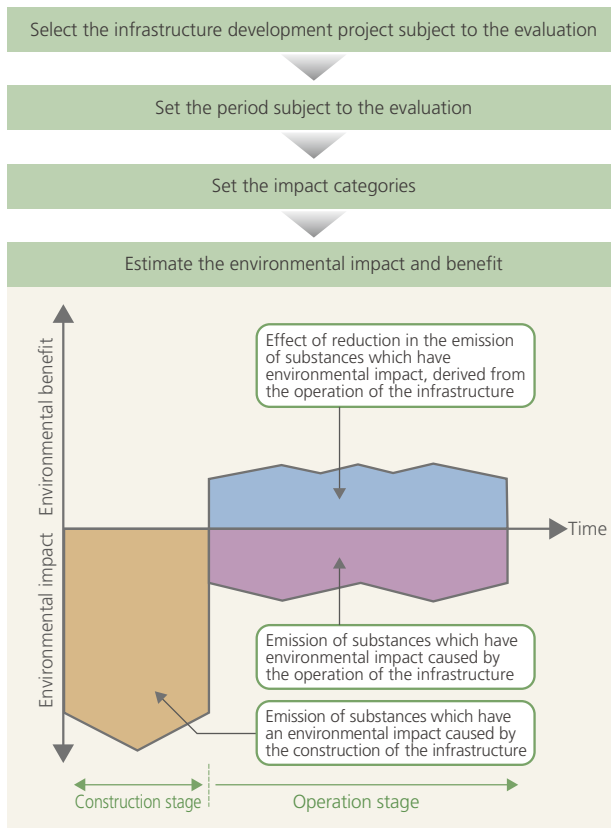
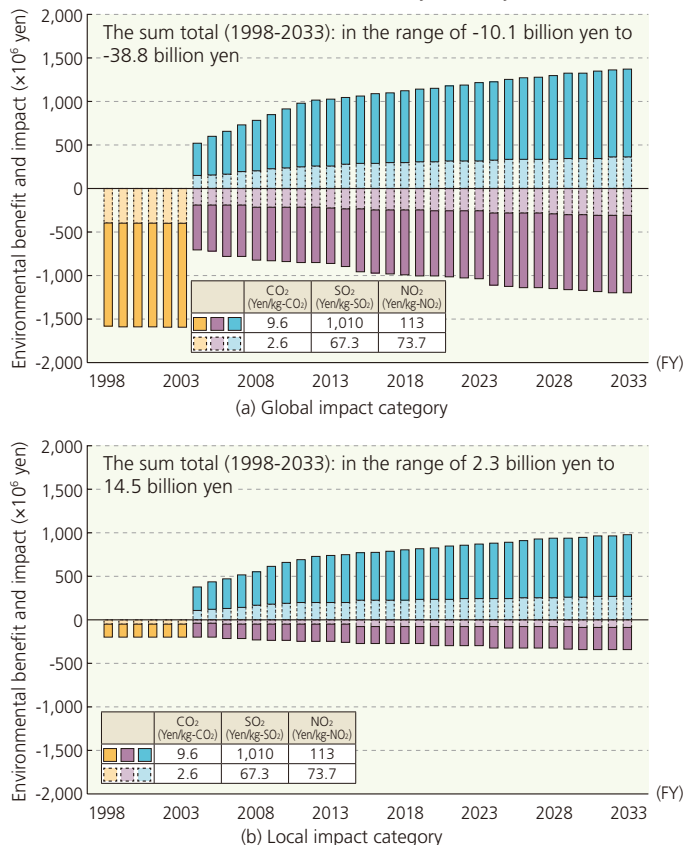


Figure 2 Changes in the Estimated Environmental Benefit and Load Derived from the MRTA Initial System Project (Blue Line)



Note: Since there is no standard damage cost per unit, the dotted lines show the minimum values and the solid lines show the maximum values on the graphs.

Vietnam

Evaluation of the Impact Concerning Equitization and Private Sector Activities in the Electricity Sector in Vietnam

Study period: November 2007, February-March 2008



Summary of the Evaluation

This thematic evaluation analyzed and examined the following questions: how the reform of the electricity sector developed; what is the impact of the reforms on the two large-scale thermal power plants constructed using ODA loans; what is the impact of the ODA loan projects on private investment in this sector. The evaluation study then discussed the future direction of ODA loans and made recommendations.

It is considered that the following reforms to the electricity sector contributed to improvements in the profitability and improvements in the public service function of the sector: the introduction of private finance; improvements to the organizational and business man-

agement system of Electricity of Vietnam (EVN) group companies; and the policy to freeze electricity prices. Regarding the effects of ODA loan projects on private investment, the ODA loan projects constructed basic infrastructure for power generation (such as water channels) and power supply (such as power lines), which reduced concerns about insufficient infrastructure. With regard to the area for future ODA loans, it will be worth considering supporting the alternative energy area. Regarding the types of future ODA loans, it will be worth considering ODA loans to promote strategic public-private partnership as well as ODA loans, which will be implemented in collaboration with JICA technical cooperation projects.

Projects subject to the evaluation	Loan agreement	Loan amount	Final disbursement date
Pha Lai Thermal Power Plant Project (1) - (4)	April 1995 (Phase I)	72,096 million yen	September 2004 (Phase IV)
Phu My Thermal Power Plant Project (1) - (4)	January 1994 (Phase I)	61,932 million yen	July 2005 (Phase IV)

Evaluation Results

Background

A roadmap for electricity sector reforms has been produced based on the Vietnamese government's state enterprise reform policy which promotes the transition to a market economy. According to the roadmap, liberalization of the electric generation market will be completed in 2014, liberalization of the electricity wholesale market will be completed in 2022. The electricity retail market will be liberalized after 2022. Therefore, equitization and the introduction of private sector activities have only just begun. However, the Ministry of Industry and Trade has vigorously implemented various political measures, including the creation and the enforcement of the Electricity Law, the introduction of private capital, business diversification of the EVN and the restructuring of affiliated companies into joint stock

companies. There are 49 EVN affiliated companies, of which 17 are joint stock companies, eight are single member limited liability companies and 24 are 100% owned by the parent company, as of 2007. It is expected that 30 affiliated companies will become joint stock companies in a few years' time.

The Pha Lai thermal power plant company, where ODA loans were used, became a listed company in 2006. The Phu My thermal power plant company is currently a single member limited liability company, but it is also scheduled to become a joint stock company. However, the EVN will continue to hold at least 51% of the shares in many joint stock companies including the two companies mentioned above.

Evaluation Framework

1 The Impact of the Electricity Sector Reforms on the EVN Group and the Projects Supported by ODA Loans

The evaluation study examined (1) the EVN group enterprises, (2) the Pha Lai Thermal Power Plant Project and (3) the Phu My Thermal Power Plant Project. The study created the following criteria in order to examine these enterprises in terms of their profitability and their

public service function.

- (1) Evaluation of profitability: (a) the corporate performance and financial situation, (b) the organizational and business management system and method, (c) the percentage of power loss
- (2) Evaluation of the public service function: (a) the percentage of households with an electric power supply, (b) electricity prices, (c) stable power supply, (d) environmental measures

2 The Impact of the ODA Loan Projects on Private Investment

The study analyzed and evaluated two BOT (Build, Operation, and Transfer) projects in the Phu My complex, from the following standpoints.

- (1) Reliability of the consortium which implements the project and the consortium's risk management

- (2) Reducing uncertainties when private companies enter the electricity sector
- (3) Reducing concerns about insufficient infrastructure
- (4) Reducing the possibility of project operation failure (concerning insufficient technologies, market, raw material supply and financing)
- (5) Reducing other possibilities of failure (such as insufficient risk management by the host country's government)

Evaluation Results, Lesson Learned and Recommendations

1 The Impact of the Electricity Sector Reforms on the EVN Group and the Projects Supported by ODA Loans

With respect to the profitability of the enterprises, the EVN group is making reasonable levels of profit due to increased power generation and increased sales, despite the freeze on electricity prices. Therefore, positive effects were seen in the group's profitability after

private finance was introduced to the sector and some EVN group companies became joint stock companies, which led to improvements in the organizational and business management systems. Regarding the impact of the reforms to the public service function, the electricity sector reforms which allowed the freezing of electricity prices had some positive effects. No impact has so far been observed on the other items in the criteria mentioned above.

Enterprise evaluated	Evaluation of profitability			Evaluation of the public service function			
	Business performance, financial situation	Percentage of power loss	Organization, management	Percentage of households with power supply	Electricity prices	Stable power supply	Environmental measures
The whole EVN group	A	B	A	B	A	N/A	N/A
Pha Lai power plants	A	B	A	B	N/A	B	B
Phu My power plants	B	B	A	B	N/A	B	B

Note: A= positive impact, B= no change (or unknown), C= negative impact, N/A= not applicable

2 The Impact of the ODA Loan Projects on Private Investment

There are several factors which enabled the establishment and the continuation of a successful business by the two BOT projects (which Japanese-owned companies participated in) in the Phu My complex. These factors include: (1) the appropriate consortium business organization and management systems were established; (2) uncertainties for private companies when they enter the electricity sector were reduced; (3) concerns about insufficient infrastructure were reduced; (4) modern technologies were provided; (5) the Power Purchase

Agreement (PPA) was concluded; (6) the fuel supply and demand system was established; (7) financing sources were secured; and (8) The host government's guarantee was obtained. The ODA loan projects were considered to have had a positive impact on "(2)" mentioned above, because the ODA loan projects invested in the construction of the power plants up-front. It is also considered that the ODA loan projects had a positive impact on "(3)" mentioned above, because they assisted with the construction of basic infrastructure for power generation and power supply such as water channels and power lines.

3 Recommendations on the Future Direction of ODA Loan Projects for the Electricity Sector in Vietnam

Future ODA loan projects should consider the challenge of minimizing increases in electricity prices by further creating competitive markets in the power generation and distribution sectors, and by establishing efficient business management systems at each enterprise unit which can compete in the market. Based on this idea, ODA loan projects should be provided for the development of basic infrastructure in the electricity sector such as the establishment of fuel supply systems, and the development of alternative energy (such as solar, wind and nuclear power) in order to cope with rises in fuel prices. In terms of the type of ODA loan projects, it will be worth considering the promotion of strategic public-private partnership, after discussing the needs and trends of private investment at the project formulation stage. It will also be worth considering collaboration with JICA technical cooperation projects which work on capacity development in order to enable the reform of the electricity sector.



The control room of the Phu My thermal power plant

Thailand

Rural Area Development through Participatory Development

Study period: September 2007



Summary of the Evaluation

This thematic evaluation mainly examined the “industrial village” project (ODA loan project) in Thailand in order to understand the results of the project from a different standpoint than infrastructure development. This project is unique in a sense that the Japanese experience of developing “roadside stations” (*michinoeki*) (which is similar to the “industrial village” project) was communicated to the

people working on the “industrial village” project, through direct communications between residents in Japan and in Thailand.

This evaluation study attempted to show how participatory development influenced the project effects (which is difficult to accurately measure through an evaluation for a large-scale infrastructure development project), by looking at the project implementation process.

Evaluation Results

Background and Objectives of the Evaluation

The “industrial village” project was conducted as part of a sub-component of the Regional Development Program (II) which promotes tourism by utilizing regional traditional culture. The project aimed to stimulate the activities of groups who produce local specialty products and connect their activities to the tourist industry, based on the local residents’ initiatives and ideas. The project thereby aimed to promote self-sustainable regional development.

The “industrial village” project promoted the participation of the residents and provided know-how to the residents, because they are the main players in regional development as well as the beneficiaries. Therefore, the project used a different approach from a conventional infrastructure development project and created a new approach

where an ODA loan project is combined with participatory development. This also created the need for a different type of evaluation method than is used for conventional infrastructure development projects, i.e. evaluating the project implementation process using different criteria. In particular, when evaluating a project which aims to develop an operational system so that the beneficiary residents can independently continue the project activities, the project’s sustainability as well as its effectiveness needs to be evaluated.

This evaluation study examined in detail the project implementation process and summarized the achievements and problems of the “industrial village” project by looking at factors which lead to the sustainability of project effects.

The Framework and the Policy for Evaluation

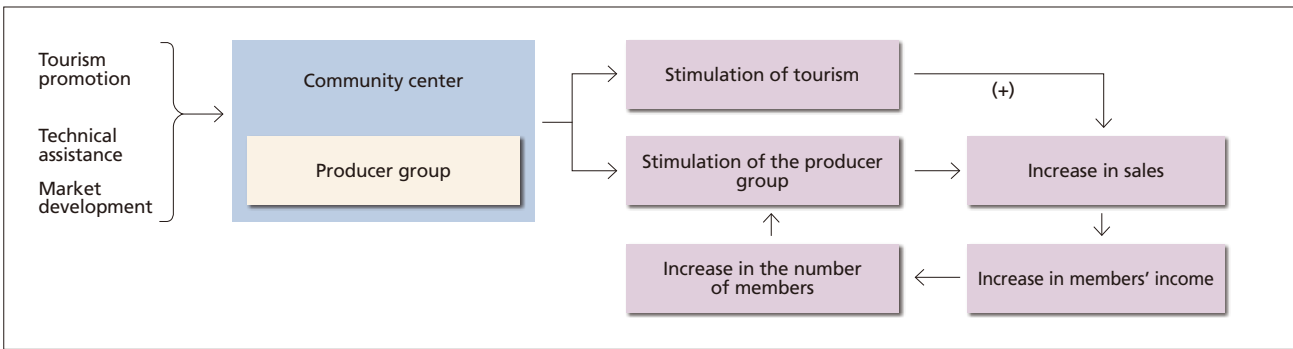
In the implementation process, the project found similarities between the development of “roadside stations” (*michinoeki*) in Japan (roadside stations are facilities established along main roads which offer a rest area, local information and a shopping area which sells local specialties) and the “industrial village” project. The project therefore attempted to use the Japanese experience in *michinoeki*. In this evaluation study, a model which analyzed the effects of the Japanese *michinoeki* projects* was used to evaluate what actually happened in the “industrial village” project. This model mainly looks at (1) the effect of the location (on a main road) which attracts customers, and (2) the revitalization of the activities of groups which play a key role in regional development (the establishment of core groups for regional development). In the “industrial village” project plan, it was expected that similar facilities near a tourist site would attract customers. Therefore, “(1)” mentioned above was replaced by “the effect of the location (near a tourist site) which attracts customers.”

The project therefore used a model which aimed at: attracting travelers and tourists from outside the region who would purchase the local specialties; revitalizing local communities by encouraging local producer groups to serve as core players in regional development; and promoting self-sustainable regional development by creating synergies between the tourists’ purchasing power and local groups’ activities (Figure 1). Using this model (created based on the *michinoeki* model) as a benchmark, the evaluation study summarized the results of the “industrial village” project.

More specifically, the study examined the trial and error process which occurred in the project in order to understand the characteristics of the “industrial village” project, in light of this benchmark model. The study also summarized the different activities conducted by individual “industrial villages” based on the residents’ initiatives. Through these processes, the study evaluated the sustainability of the project as a participatory development project.

* The model was created by the evaluator based on the content explained in the *Guidelines for Roadside Stations ‘Michinoeki,’* World Bank, 2004.

Figure 1 Evaluation Model Based on the World Bank's *Michinoeki* Model



Source: Produced by the author

Evaluation Results, Lesson Learned and Recommendations

20 villages were selected for the “industrial village” project. One of the criteria for the selection was that “the village should be located in a tourist area or on the way to a tourist area.” However, only a few “industrial villages” were located close to a famous tourist site and many villages failed to attract tourists to their villages. The disadvantage of being a long way from a tourist area is undeniable. Therefore, there was no progress in regional development through the synergy effect between a location which can attract customers and the development of core groups for regional development, as shown in the *Michinoeki* model. This means that the project created core groups for regional development without having the possibility of the tourism development effects which the *Michinoeki* model assumes.

In order to overcome the unfavorable locations, it was considered crucial to further strengthen the core groups for regional development, in the project implementation process. In this process, the

project succeeded in providing the know-how for regional development which utilizes local specialty products, thanks to the efforts made by people involved in *Michinoeki* development in Japan (Table 1). Through a series of seminars and workshops, the people involved in “industrial villages” understood the possibilities of regional development conducted by local residents. People involved in *Michinoeki* development in Japan also greatly helped the “industrial village” residents to learn business methods in detail, through the creation of an action plan, on-site workshops to give advice on group activities and sales activities, etc. It was easy for the residents who need to manage the “industrial villages” to relate to the experience of the residents who succeeded in their *Michinoeki* projects. This learning process was easy to understand and it provided opportunities to absorb know-how. The residents involved in the *Michinoeki* projects also had immeasurable influence on the “industrial village” residents in gaining confidence about the potential for the project success.

Table 1 Participation of *Michinoeki* Project-Related People in the “Industrial Village” Project

Period	Event name	Content
2001	Special Assistance for Project Implementation (SAPI) for the Regional Road Improvement Project (III)	Utilization of the <i>Michinoeki</i> development experience for participatory projects was examined in Thailand.
January 2003	Participatory Aid Promotion Seminar	The similarity between <i>Michinoeki</i> and the “industrial village” project was pointed out, and participation in the “industrial village” project by people involved in <i>Michinoeki</i> development was decided.
July and August 2003	2003 Workshop I	People involved in <i>Michinoeki</i> participated in the events and discussed their experiences.
November 2003	2003 Workshop II	
September 2004	2004 Workshop	
October and November 2004	Training in Japan in cooperation with JICA	
March and April 2006	2006 Seminar	

This project implementation process strengthened the producer groups who are the core groups for regional development and the main players for implementing the project. Therefore, this process provided the opportunity for capacity development which was needed by the beneficiary residents in order to continue the project independently.

The study identified the following lessons to be learned from the implementation process. In order to overcome the problem of disadvantageous locations, the project assisted with tourism promotion for the producer groups, etc. However, the lack of good locations which could attract customers (which was a requirement for the *Michinoeki* model) remained a large problem. It is essential to secure locations

which can expect customer traffic in order for the model to work.

Another problem was that the level of government involvement in the “industrial village” project was unclear. Any participatory projects including the “industrial village” project requires initiatives and ideas from the beneficiary residents (which are the most important factors), but it is generally difficult for the residents alone to start such a project from scratch. It is also difficult for the aid executing agency or the central government to continue providing careful assistance to the residents. This makes cooperation with the local government important. However, there were only a few “industrial villages” that succeeded in building cooperation with local government. The project should have made more effort to ensure the sustainability of the project effects.