

# Chapter 2 Poverty Reduction and Community Development

## 2-1 Outline of Evaluation Study

### (1) Background and Objectives

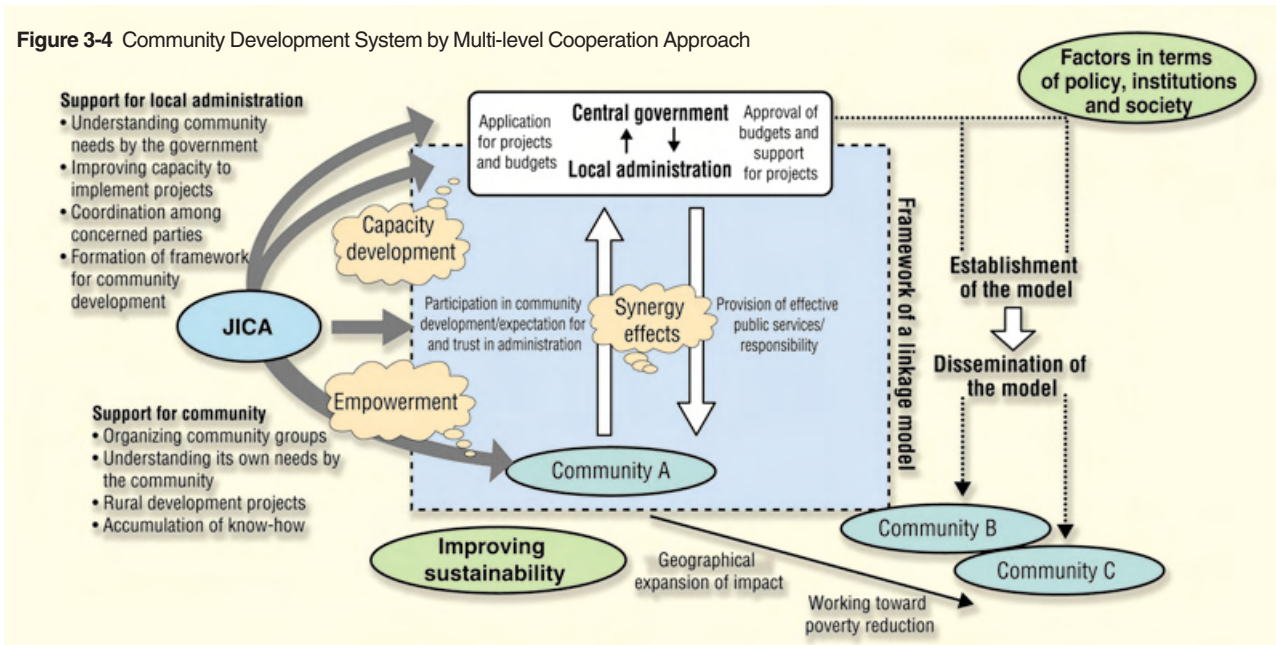
The issue of poverty has received high priority in the context of cooperation to developing countries for a long time, leading to global efforts and initiatives for poverty reduction. In 2000, poverty-related issues were included in the Millennium Development Goals; thus reaffirmed as a common fundamental goal of development assistance among donor countries. Since the cooperation to the governmental organization has not reached the poor, it is necessary to involve the poverty group and local community directly in the projects. At the same time, the issue is being raised that a direct problem-solving approach to the poverty group or local community won't spread to other regions since the effects are confined to only the target area, although direct effects easily occur.

Poverty reduction has been recognized as an important development issue within JICA and various efforts were made through community development projects. Up to the 1980s, poverty-related projects assisted by JICA were mainly based on two approaches: the direct problem solving approach applied for projects with specific village-level target groups and the technical transfer approach applied for projects designed to develop the capacity of civil servants such as administrative and technical staff. Characteristically, these

two approaches provided development interventions at a single level, such as the government or the community level. The technical transfer approach was effective in strengthening the capacity of institutions involved in community development. However, the replication of cooperation activities to the local people was left to the discretion of the counterpart organization. It is difficult to assess local needs directly as well as evaluate the impact of activities conducted by the counterpart organization. The direct problem solving approach was effective in providing quick development solutions as well as empowering the target population. However, the projects based on this approach often brought impacts to a specific target area, thus limiting the number of beneficiaries. This aspect raised certain questions regarding the post-project sustainability of the activities introduced as well as equity in the selection of target areas and populations.

As an alternative to the above two approaches, JICA introduced a more comprehensive approach towards poverty reduction called the multi-level cooperation approach (Figure 3-4). In this approach, each project incorporated interventions at multiple levels, such as central and regional government, community, university, and NGO. Furthermore, this approach enhanced collaboration by creating linkages among above mentioned stakeholders. JICA-supported projects based on the multi-level cooperation approach began to appear since early 1990s in various countries.

Figure 3-4 Community Development System by Multi-level Cooperation Approach



**Table 3-11** Projects Subject to Evaluation

No.	Project Title	Scheme	Project period	Abbreviation
1	Project on Strengthening Sulawesi Rural Community Development to Support Poverty Alleviation Programs in Indonesia	Project-type Technical Cooperation	1997. 3- 2002. 2	Sulawesi Rural Community Development Project
2	Participatory Rural Development Project in Bangladesh	Expert Team	2000. 4 - 2004. 4	Bangladesh PRDP
3	The Rural Livelihood Generation Project in the Philippines	Project-type Technical Cooperation	1991. 1 - 1996. 9	Rural Livelihood Generation Project in the Philippines
4	The Cebu Socio-Economic Empowerment and Development Project in the Philippines	Project-type Technical Cooperation	1999. 3 - 2004. 2	Cebu SEED
5	Training Services Enhancement Project for Rural Life Improvement in the Philippines	Project-type Technical Cooperation	1996. 6 - 2001. 6	Training Project for Life Improvement in the Philippines
6	Joint Study Project on Strengthening Capacity for Participatory Rural Development through Mobilization of Local Resources in Sri Lanka	Expert Team	1998. 7 - 2001. 6	Participatory Rural Development Project in Sri Lanka
7	Integrated Agricultural and Rural Development Project in Southeast Sulawesi Province in Indonesia	Project-type Technical Cooperation	1991. 1 - 1998. 2	Southeast Sulawesi Agricultural and Rural Development Project
8	The Agricultural and Rural Development Project in Vientiane Province (Phase 2) in Laos	Project-type Technical Cooperation	1995. 11- 2002. 10	Rural Development Project in Laos
9	Community Development and Forest/Watershed Conservation Project (Phases 1 and 2) in Nepal	Project-type Technical Cooperation	1994. 7 - 2004. 7	Forest Conservation Project in Nepal
10	Project on Sokoine University of Agriculture Center for Sustainable Rural Development in Tanzania	Project-type Technical Cooperation	1999. 5 - 2004. 4	Sokoine Rural Development Project

In order to learn lessons from past experiences for planning and implementing upcoming projects, the Office of Evaluation of JICA conducted “Thematic Evaluation on Poverty Reduction/Community Development”. For this purpose, projects based on the multi-level cooperation approach to poverty reduction were specifically highlighted.

## (2) Evaluation Study Period and Team

### 1) Evaluation Study Period

From July 2003 to March 2004. Field study in Indonesia was conducted from November 28 to December 20, 2003.

### 2) Evaluation Study Team

This thematic evaluation was supervised by the Office of Evaluation of JICA. The study committee consisted of external experts (evaluation advisors), the JICA Poverty Reduction Task Force, and parties associated with the project. Evaluation was conducted in accordance with the policies determined by the study committee. The actual study and report writing were undertaken by the Office of Evaluation and consultants (Global Link Management Inc).

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## (3) Projects Subject to the Study

JICA has implemented poverty-reduction related projects and community development projects in various sectors and schemes. The objective of this evaluation is examination of the effectiveness of the multi-level cooperation approach as mentioned earlier. Accordingly, this evaluation targeted technical cooperation projects that worked on building linkages by approaching various parties involved in community development under a multi-level cooperation\*. The target projects are listed in Table 3-11 (the abbreviations for each project title are used in this evaluation report).

## 2-2 Framework of the Study

### (1) Evaluation Questions and Hypotheses

In this thematic evaluation study, the multi-level cooperation approach was cross-examined from the perspective of its effectiveness in reducing poverty through multi-level interventions at the local government and the community levels to create linkages between them. The following hypotheses were employed to clarify the points under discussion during the evaluation study and were subject to verification. Thus, the framework of the study was designed as to verify these hypotheses.

- 1) The multi-level cooperation approach could generate synergy in community development, by building linkages between regional governments and community members.
- 2) If a synergy model for community development using a

\* It should be noted that the multi-level cooperation approach was not always used deliberately at the planning or implementing stages of all these projects. In addition, there are some differences in the degree of interventions to administrations or local residents among projects.

multi-level cooperation approach is integrated into the policies and institutions of the partner country, the sustainability of the model and the development effects will expand geographically.

## (2) Evaluation Methods

The evaluation study began with the analyses of individual projects based on literature reviews and interviews with relevant individuals. Individual projects were analyzed based on the following points: (1) logic of the project planning, (2) activities and outcomes at the implementing stage, (3) establishment, sustainability, and dissemination of the framework of community development (i.e., “synergy model”) as a result of the multi-level cooperation approach, and (4) finding lessons learned.

Next, a field survey was conducted on the Sulawesi Rural Community Development Project as a case study, mainly through interviews with the persons concerned and focus-group discussions. We then assessed the degree of sustainability and impact of the synergy model\* in the community development that the project introduced into the target area. All the target projects were then analyzed comprehensively

and in a cross-sectoral manner, and lessons were extracted from a thorough examination.

## 2-3 Cross-sectoral Analysis

### (1) The Planning Stage of the Multi-level Cooperation Approach

Here, the target projects are analyzed from the viewpoint of what was the target at the planning stage, what kind of logic was used to achieve the goal, and whether or not the logic was clearly stated.

#### 1) Background of Introducing the Multi-level Cooperation Approach and Objectives

Looking at the status of community development at the time of project planning (Table 3-12), a common characteristic was found. Specifically, there was a lack of opportunity for local residents to participate in the process of development activities from the planning to the implementing stage due to the top-down provision of public services and inadequate capacity of the local administration of the partner government. As a result, local needs were not adequately accommo-

**Table 3-12** Status of Community Development at the Time of Project Planning

Country	Administration Type	Project Title	Administrative Body of Community Development*	Implementing Body	Concerned Parties (excluding implementing bodies and local residents)
Indonesia	Centralized authority	Sulawesi Rural Community Development Project	Central government, provincial government, district government	Directorate General of Community Empowerment, Ministry of Home Affairs (BPM); South Sulawesi Provincial BPM; Government of Takalar District	Provincial government, district assembly, NGO, local university
		Southeast Sulawesi Agricultural and Rural Development Project	Central government	Southeast Sulawesi Provincial Office, Ministry of Agriculture	Provincial government, district government
Bangladesh	Decentralized authority	Bangladesh PRDP	Central government	Bangladesh Rural Development Board	Central government (disseminators in each sector and county office), union council, NGO
Philippines		Rural Livelihood Generation Project in the Philippines	Provincial government, town office	Human Development Center, Office of the President	Central government, town office, NGO, provincial agricultural school
		Cebu SEED	Provincial government, town office	Planning and Department Division, Cebu Provincial Government	Provincial government, town office, NGO
Sri Lanka		Training Project for Rural Life Improvement in the Philippines	Provincial government, town office	Agricultural Training Institute, Department of Agriculture; Agriculture Training Center	Provincial government, NGO, town office, university
		Participatory Rural Development Project in Sri Lanka	Central government, provincial government, prefectural government	University of Colombo	Provincial government, NGO, agricultural producers' association
Tanzania		Sokoine Rural Development Project	Prefectural government	Sokoine University of Agriculture, Center for Sustainable Rural Development	Prefectural government, NGO
Laos	Rural Development Project in Laos	Provincial government, county government	Ministry of Agriculture and Forestry, Provincial Agricultural and Forestry Service Office	NGO, county, JOCV	
Nepal	Forest Conservation Project in Nepal	County government	Department of Soil Conservation and Watershed Management, Ministry of Forest and Soil Conservation	County government, village government, NGO	

\*The administrative body of community development here refers to the administrative agency that manages the implementation of community development in the partner country, and it varies depending on the administration system of the country and the target sector. The Sulawesi Rural Community Development Project and Southeast Sulawesi Agricultural and Rural Development Project in Indonesia and Rural Livelihood Generation Project in the Philippines saw the administration system shift from centralization to decentralization during the cooperation period.

\*In practice, the term “synergy model” was not used in the actual projects. The term is used for convenience to ensure consistency in the description of this study.

dated in the development activities led by the local government, and the potential of the local community was rarely tapped through the participation of the local residents in the development activities. Under these circumstances, each project aimed to improve the situations by securing the participation of local residents and building linkages to the central government, including its local branch offices, and to people involved with community development such as local municipalities, universities, and residents.

As a result, the projects had a clear objective to encourage the positive participation of local residents and conduct bottom-up community development projects. Thus, common characteristics were found in those projects such as emphasis on the community empowerment and livelihood improvement, establishment of collaborative linkage between local administration and the community, and an increase in sustainability of rural community development. The Participatory Rural Development Project in Sri Lanka and the Sokoine Rural Development Project in Tanzania both incorporated new roles for universities in community development and aimed at establishing unique participatory development methods. With respect to poverty reduction, the Rural Livelihood Generation Project in the Philippines was the only project that adopted measures against poverty. Other projects did not specifically direct assistance to the poverty group, but aimed to activate the regional community as a whole, which would in turn alleviate poverty.

## **2) Mechanism of the Multi-level Cooperation Approach**

In each project, an implementing body was selected from the central government, local government or universities in the partner country. The selection process of the implementing body varies depending on the type of administration system or the administrative body in each country; nonetheless, each project tried to select the most appropriate institution to achieve the goal of the multi-level cooperation approach. However, in some projects the implementing bodies of partner countries assumed new roles and additional functions that were different from the original operation within the framework of community development. This made it difficult for the projects to continue performing additional roles after termination due to budgetary and institutional constraints. In such cases, the project could possibly have involved a more appropriate organization, in terms of its original functions at the planning stage.

Target areas of the multi-level cooperation approach at provincial and prefectural levels were selected based on requests made by the partner government, giving due consideration to regional disparities and poverty levels in the partner country. In each selected province or prefecture, several town or village-level areas (model areas) were chosen in all the projects in order to compare and examine the differences. The selection criteria included various factors such as differences

in social and economic conditions, consistency with specific objectives of each project, continuation from preceding research cooperation projects, and political factors in the partner country.

In selecting the beneficiaries of rural development activities, which were conducted as the community level component of the multi-level cooperation approach, most projects identified them as any existing community groups in the target areas. This method can be considered effective in securing a wide range of beneficiaries, focusing on the initiatives of participating communities.

Methods for establishing a synergy model for implementing the multi-level cooperation approach are largely classified into two types: projects with a clear plan of action from the beginning, and projects in which a model was eventually formed as a result of experiences and lessons learned by trial and error. The projects with a clear plan from the beginning (seven projects) incorporated the step-by-step process into the project plan, from designing to verification or dissemination of a synergy model. In the projects where a model was eventually formed (three projects), the project activities were launched without specifying the process of formation or the time of completion of a model, and they flexibly dealt with situations in the course of the formation. Eight projects except for the Sulawesi Rural Community Development Project and Training Project for Life Improvement in the Philippines did not lay out specific plans to disseminate a synergy model to other areas; instead, they did nothing more than propose a model to the implementing body of the partner country (expecting them to adopt the model). In this case, the success of the dissemination of the synergy model depends largely on the policies, technical and social conditions, or environment of the partner country or implementing organization. It is therefore necessary to understand these external factors in order to examine the possibility of dissemination and the necessity of proactive promotion by the project.

## **(2) Implementation Stage of Synergy Model through Multi-level Cooperation Approach**

The type of cooperation (activities, inputs) that was made during implementation and the type of changes (outcomes) that was entailed in contrast to the plans of each project are discussed below. In addition, the ingenuity and creativity generated at each level of the multi-level cooperation approach, namely local administration, residents, and linkage between them, are analyzed.

### **1) Approaches to Local Governments**

The characteristics of the activities and outcomes in organizational enhancement and human resource development of local administration are presented in Table 3-13. Activities carried out to institutionally and organizationally incorpo-

**Table 3-13** Activities and Outcomes in Organizational Enhancement and Human Resource Development of Local Administration

Activities	Project Title	Outcomes
Technology transfer to local administration through OJT	Nine projects except Sokoine Rural Development Project	Improvement of knowledge and technologies in related sectors
Institutionalization of training models (by bylaws and ministerial ordinances) in addition to OJT	Sulawesi Rural Development Project, Training Project for Life Improvement in the Philippines	Continuous development of human resources who support the model
Support for formulating manuals and guidelines	Sulawesi Rural Development Project, Bangladesh PRDP, Training Project for Life Improvement in the Philippines, Forest Conservation Project in Nepal	Promotion of understanding of counterparts (Nepal, Bangladesh), application of the model by counterparts (Sulawesi), efficient dissemination of the model (Philippines)
Introduction of the third country training, and training tour to neighboring countries	Rural Development Project in Laos, Forest Conservation Project in Nepal	Improvement of counterparts' skills and motivation for instructing residents
Accumulation of experiences (cases, collected data, etc.)	Cebu SEED, Forest Conservation Project in Nepal, Sokoine Rural Development Project	Unidentified (from a literature review)

rate a synergy model into the routine operations by means of bylaws or ordinances in addition to OJT, as well as to accumulate relevant knowledge through support for formulation of manuals and guidelines, contributed to improved sustainability. Even when the implementing organization was not a local administration, but rather an institution such as a university, activities to develop human resources in the local administration and strengthen the functions must be made. Without these efforts, it was revealed that the sustainability of the synergy model is undermined after the completion of the project.

The projects in which linkage was built with a clear definition of the roles of players, such as related organizations and personnel involved in regional social development, could obtain necessary technical and financial support from these stakeholders, thus demonstrating the high sustainability of rural development projects. However, there were some projects that did not draw support from the related actors, thus leading to an ineffective synergy model. Such projects included one in which the roles of the concerned parties were not clearly defined at the planning and implementing stages and the approach to the concerned parties was delayed (Rural Development Project in Laos). There was another in which the concerned parties were given overlapping roles (Rural Livelihood Generation Project in the Philippines), and one in which there was no intention to build linkage between local administration and communities (Participatory Rural Development Project in Sri Lanka).

With respect to the cost burden of the implementing organization, the local activity costs of most projects were borne by the Japanese side, and financial sustainability after the termination of a cooperation project remained an issue. In this regard, the Sulawesi Rural Community Development Project reduced the local cost burden on the Japanese side on a step-by-step basis, taking into account the sustainability of the synergy model after termination of cooperation. This effort eventually led to the institutionalization of the model. The Participatory Rural Development Project in Sri Lanka encour-

aged the partner government to apply collateral funds of Japanese Grant Aid for Increase of Food Production (2KR) as an activity cost, and as a result it was used to pay for the implementation of the multi-level cooperation approach, and a synergy model formed.

## 2) Approaches to Local Communities

At the launch of projects in the rural area, the community awareness of their problems was enhanced through various activities, including participatory rapid appraisal (PRA) workshops, meetings with local residents, and awareness campaigns held by facilitators. Also, in the projects that adopted the participatory project formulation process, the incentives for residents to participate in the activities of rural development were enhanced. At the implementation stage of rural development activities, training tours to developed regions were conducted for maintaining motivation. However, in the Rural Development Project in Laos, which did not work to encourage community participation, there was a lack of incentives for residents to participate in activities, and this remained as an issue.

When existing community groups or groups newly organized by residents themselves initiated the implementation of rural development activities after sufficient social preparatory activities as motivation and appropriate technologies were introduced, the morale of residents and the continuity of the activities were often boosted. Efforts to improve the financial sustainability of rural development activities were also vital.

As shown in Table 3-14, all the efforts directed at local communities generated positive results.

## 3) Approach for Establishing Collaborative Relationships

In all the projects, facilitators were introduced for identifying local needs, coordinating opinions within the community, increasing the awareness of residents, and monitoring activities in the implementation of participatory development activities. Facilitators brought about public services in line with the local needs and helped local residents foster a trusting

**Table 3-14** Activities and Outcomes in Human Resource Development and Empowerment of Local Communities

Activities	Project Title	Outcomes
Promotion of awareness about issues through workshops and meetings	Projects except for the Rural Livelihood Generation Project in the Philippines	Residents themselves understood issues. Later, in the projects where a participatory planning process was adopted, except for the Rural Development Project in Laos, workshops and meetings motivated and activated their awareness of rural development activities, and the planning capacity for rural development activities improved.
Increase in residents' voice by organizing community groups	Bangladesh PRDP, Participatory Rural Development Project in Sri Lanka, Southeast Sulawesi Agricultural and Rural Development Project, Rural Development Project in Laos, Forest Conservation Project in Nepal	Community representatives gained a voice toward local governments and their influence was enhanced.
Capacity enhancement through training and technical guidance	Sulawesi Rural Community Development Project, Rural Livelihood Generation Project in the Philippines, Cebu SEED, Training Project for Life Improvement in the Philippines, Rural Development Project in Laos, Forest Conservation Project in Nepal	Training and technical instruction improved the knowledge and skills of residents, and even raised the income of the residents for some groups.
Improvement of access to public services through meetings between administration and communities	Sulawesi Rural Community Development Project, Bangladesh PRDP, Cebu SEED, Participatory Rural Development Project in Sri Lanka	Access of communities to public services improved and services were effectively provided to a large number of residents, which led to the technical improvement of local residents.
Introduction of target approach to the socially vulnerable	Forest Conservation Project in Nepal	Introduction of a target approach for women enabled women to organize groups and activated the social and economic activities of women, resulting in the improved voice of women. On the other hand, in the activities targeting occupationally discriminated castes, the participation of the relevant castes was not fully ensured.

relationship with the local administrations. They functioned effectively in establishing linkages between local administrations and residents.

Furthermore, various efforts such as the use of existing town meetings and the help of resource persons were made in some project activities to establish linkages between the local administrations and residents. In addition, most projects worked to establish a new framework or forum, which promotes dialogues among residents or administrative organizations, or between residents and administration, in order to

improve community access to public services. This facilitated smooth, mutual communication, which brought about collaborative relationships (Table 3-15).

Effects of community development activities have already been mentioned along with the outcomes of each project. Important factors to be considered are compiled in Table 3-16. As the table shows, positive impacts are most observed in the target areas where the rural development activities were carried out. Such impacts include the activation of the rural development activities and improvement of the technical and the

**Table 3-15** Activities and Outcomes in Establishing Linkage between Local Administration and Communities (Establishment of New Framework or Forum)

	Activities	Project Title	Outcomes
1. Horizontal Network (among residents)	Establishment of an administrative base (committee), which provides the opportunity to exchange information and coordinate opinions among the residents at the community or rural area levels.	Bangladesh PRDP Participatory Rural Development Project in Sri Lanka Southeast Sulawesi Agricultural and Rural Development Project in Laos Forest Conservation in Nepal	In the Bangladesh PRDP, the Participatory Rural Development Project in Sri Lanka, the Southeast Sulawesi Agricultural and Rural Development Project, social surveys were sufficiently conducted to increase the community awareness before establishing committees, which contributed to their vigorous activities later on.
	Periodical meetings were set at the local administration level to exchange opinions between the local administration and residents.	Bangladesh PRDP	A network connecting local administration and residents was established and public services in line with local needs were effectively provided. It fostered trust in local administrators. Particularly in the Bangladesh PRDP which emphasized the linkage between residents and administration, effective and efficient public services were provided and residents' trust in administration was fostered, and the morale of facilitators was raised as synergy effects.
A forum where residents can formulate development plans and exchange opinions was set at the community level	Cebu SEED		
A forum for opinion exchange between residents and local administration in activity assessment was set at the local administration level.	Sulawesi Rural Community Development Project		
2. Vertical Network (residents-administration)	Meetings between university and local administration were set up to deliver local needs to local administration.	Participatory Rural Development Project in Sri Lanka Sokoine Rural Development Project	Projects were implemented in line with local needs.

problem-solving capacity of communities.

As shown in Table 3-16, three projects (Sulawesi Rural Community Development Project, Bangladesh PRDP, and Cebu SEED) showed impacts on the relationship between administration and residents, such as activation of rural development activities, increasing transparency of administration, and improving community access to public services. The reason why these three projects stand out with regards to synergy effects of the multi-level cooperation approach is that they commonly made creative and ingenious efforts in one aspect, namely the provision of a forum for dialogue between administration and the community in addition to technology transfer through OJT (an approach to administration), activities for social preparation (raising awareness of residents), and training (an approach to residents). In other words, these three projects exemplify how synergy effects were generated by the positive provision of opportunities for direct contact between administration and the community. In addition, Bangladesh PRDP, which made great efforts in building a network between administration and residents, demonstrated that such a network also led to an increase in the morale of facilitators who acted as a bridge between residents and administration.

#### 4) Introduction of the Multi-level Cooperation Approach

As already mentioned, the target projects intervened not only in the community and in local administrations, but also comprehensively incorporated both as important actors in rural community development. As a result, communities and administrations increased awareness and capacities and community-level activities were successfully implemented, thus contributing to the realization of bottom-up rural community

development, which was the objective of each project.

### (3) Factors Contributing to Sustainability and the Spread of a Synergy Model Using a Multi-level Cooperation Approach

Below, the analysis results are examined from the viewpoint of whether or not there is a possibility that the synergy model developed and established in each project will be consolidated, developed (sustainability), and applied to other regions (spread), as well as what kind of impacts were seen or expected to be seen in terms of poverty reduction.

#### 1) Sustainability of the Synergy Model in the Project Implementation Areas

In order to secure sustainability of the synergy model, three elements are important: institutionalization, securing budgets, and appropriate technologies. These three elements were mostly secured in the Sulawesi Rural Community Development Project and the Training Project for Life Improvement in the Philippines, and it was believed that the potential for continuation of the activities following their termination was high in the pilot project areas. In contrast, the Rural Livelihood Generation Project in the Philippines lacked organizational and institutional support for the synergy model and many activities were not sustained even at the village level. In other projects, post-project sustainability was found to be insufficient since policy and institutional support and the budget were not secured at the government level of the relevant country (or region), although the effectiveness of synergy models in the target areas and activities at the community level were proved.

**Table 3-16** Impact of Rural Development Activities

	Sulawesi Rural Community Development Project	Bangladesh PRDP	Rural Livelihood Generation Project in the Philippines	Cebu SEED	Participatory Rural Development Project in Sri Lanka	Training Project for Life Improvement in the Philippines	Southeast Sulawesi Agricultural and Rural Development Project	Rural Development Project in Laos	Forest Conservation Project in Nepal	Sokoine Rural Development Project
Activation of rural development activities	○	○	○	○	○	○	○	○	○	○
Increase in transparency of administration	○	○		○						
Increase in morale of facilitators		○								
Improvement in technical skills, yields, and income	○		○			○	○	○	○	○
Improvement in problem-solving capacity of residents	○	○		○	○	○	○	○	○	○
Improvement in residents' access to public services	○	○		○						
Review of local industry					○					○

## 2) Spread of Synergy Model to Other Areas

In all targeted projects, the synergy model developed as a result of the multi-level cooperation approach was found to be effective. Among these, we saw the spread of the model beyond pilot areas in three projects, namely, the Sulawesi Rural Community Development Project, Training Project for Life Improvement in the Philippines, and the Southeast Sulawesi Agricultural and Rural Development Project. In other projects except Rural Livelihood Generation Project in the Philippines, the model could have spread if certain conditions had been satisfied (Table 3-17).

With regard to three projects that succeeded in the spread of the synergy model to other areas, major factors were analyzed individually. Though factors related to the spread of the model vary from project to project, the factors and conditions are roughly categorized into two types: (1) those that are influenced and changed by a project, and (2) external environments and derived situations, which a project cannot control. In other words, the former factors are referred to as the promoting factors of spread and the latter as external conditions that promote spread. The promoting factors of spread are further divided into two groups: internal factors in the model\* in relation to whether or not its contents and levels are appropriate to spread to other areas in the partner country after the completion of cooperation, and factors outside of the model in relation to whether or not the environment such as institutions, policies, organizations, and budgets of the partner country are appropriate for the spread of the model, which can be influenced by a project. The important points in the spread of the model were found in designing a model that is easily understood and applied by the implementing body and other donors (internal factors), and in effectively using political and

institutional factors surrounding the project by improving the understanding of the stakeholders and considering spread concretely from the planning stage (external factors). It was observed that the spread of the model to other areas was enhanced when these factors were present.

### <Sulawesi Rural Community Development Project: A Case with Spread of the Model Considered at the Initial Stage of Planning>

#### a. Factors Related to the Spread

- Development of a model that spreads easily (internal factors)
  - Field studies were conducted with counterparts to identify the situations during the planning stage of activities. As a result, a model that corresponds to the local situation and which can be easily accepted by the implementing body and the community of the partner was developed.
- Approach to the environment surrounding the project (external factors)
  - In order to secure human resources who implement and manage the model, the capacity of local government officials was strengthened through PLSD training. This training enabled not only the implementing body but also other relevant parties to share the concept of the model and the importance of implementation of the model in the relevant area.
  - Related organizations were encouraged to assume the operation costs incurred for the model after termination of the project.
  - The governor, chairman and members of the district council were invited to Japan for training in order to secure policy and institutional factors for the spread of the

**Table 3-17** Spread of Linkage Model to Other Regions

Project Title	Spread Plan of the Model	Spread Situation and Method of Ensuring Spread		Points of Concern
Sulawesi Rural Community Development Project	Specific activity plan was initially developed to spread the model to other areas	○: Models spread to other areas.	Models were stipulated in a provincial ordinance.	The model spread after completion of cooperation by the implementing body (district government).
Training Project for Life Improvement in the Philippines			The implementing body developed an ordinance.	The spread of the model was verified during the project.
Southeast Sulawesi Agricultural and Rural Development Project	A model was presented to the implementing body of the partner country.	△: Possible if conditions are met	The model was adopted by the implementing body or other donor.	Input of development fund for infrastructure and establishment of operational fund for the community are essential to maintain the spread.
Cebu SEED, Bangladesh PRDP, Participatory Rural Development Project in Sri Lanka, Rural Development Project in Laos, Sokoine Rural Development Project, Forest Conservation Project in Nepal				Policy and budget measures of the implementing body are necessary for the spread of the model. Judgement by the provincial governor was required in the case of Cebu SEED.
Rural Livelihood Generation Project in the Philippines			×: No possibility of spread	No sustainability of the model and far from spread

\*From the viewpoint of applicability of the model, the budget size for implementation, complexity in the implementation process, and required technical level are examples of those factors.



model. The effect of the training was large and the model was institutionalized with the adoption of the district ordinances passed by the council following the governor's ordinance.

#### b. External Conditions Promoting Spread

- Since decentralization-related laws were enforced in the partner country, the authority pertaining to development plans and budgets was transferred from the central government to local governments, and the policy and institutional conditions became preferable for the implementing body to spread the model.

#### <Training Project for Life Improvement in the Philippines: A Case with Spread of the Model Considered at the Initial Stage of Planning>

##### a. Factors Related to the Spread

###### ■ Development of a model that spreads easily (internal factors)

- Implementation process was simplified and manual was revised to promote the spread.
- The possibility of the spread of the model was verified step-by-step during the implementation.

###### ■ Approach to the environment surrounding the project (external factors)

- Institutional support was derived by encouraging the Ministry of Agriculture, the implementing body, to issue ministerial ordinances.
- Officers at the central government level were dispatched to lab sites (pilot areas to verify the effectiveness of the model) to provide clear evidence of the effectiveness of the model.
- Support was gained from the town offices, which were the implementing body of the development activities in the field.

##### b. External Conditions Promoting Spread

- The implementing body was the training institution of the central government (agricultural training center). This center had 33 regional training centers and a structure well designed for circulating instructions. Therefore, it was relatively easy to spread the synergy model to the rural areas.

#### <Southeast Sulawesi Agricultural and Rural Development Project: A Case Where the Success of the Model Led to the Spread of the Synergy Model Despite the Lack of Any Spread Plan>

##### a. Factors Related to the Spread

###### ■ Development of a model that spreads easily (internal factors)

- The model simply intended to plan and implement community participatory agriculture and rural development activities and provide the communities with financial

resources for operation of development activities. Therefore, there was no particular organizational difficulty on the part of the implementing body in undertaking the model. As a result, the implementing body (plus the World Bank and district government) applied the model to two other areas in the same province.

###### ■ Approach to the environment surrounding the project (external factors)

- Counterparts in the implementing organization was able to duly understand the concepts and characteristics of the model through OJT.

##### b. External Conditions Promoting Spread

- The implementing body was the central government (and the donor), which had the budget and authority to implement the model.

Importantly, the Southeast Sulawesi Agricultural and Rural Development Project did not intentionally adopt strategic approaches as the first two projects did. Thus, sustainability of the spread depends on how infrastructure is developed, and how financial resources for the establishment of an operational fund are secured and provided for the community.

Projects that did not spread the synergy model to other areas, except for the Southeast Sulawesi Agricultural and Rural Development Project, did nothing more than propose models to the implementing bodies of the partner countries, expecting the models to be applied to other areas through the initiatives of the implementing bodies. However, after the completion of cooperation, the spread of the model to other areas required additional policy measures and budgets in the partner countries in many cases. For example, the Bangladesh PRDP had to build a local community hall as a core of the framework of this model and employ facilitators in order to implement a synergy model. The Cebu SEED needed a political decision from the provincial governor to officially incorporate this model into the operation of the provincial government, in order to institutionalize the synergy model. In the Sokoine Rural Development Project and Participatory Rural Development Project in Sri Lanka, the Japanese side was required to continue its budgetary and technical support since the partners were not able to initiate spreading by themselves. In other words, in these projects, the governments and implementing bodies in the partner countries were aware of the significance of the model developed by the multi-level cooperation approach; however, spread has yet to be achieved under existing circumstances. Therefore, it is fair to conclude that positive actions to secure spread at an early stage of the project were necessary, not right before termination.

### 3) Requirements for Ensuring Sustainability and Spread

Comprehensive analysis of the target projects revealed

the following common factors in projects with high sustainability and potentials for spread to other areas of the synergy models that had been developed through the multi-level cooperation approach.

- Objectives of the multi-level cooperation approach are clear and specific.
- The formation process of the model is well planned.
- Specific activities for the spread are included in the plan.
- Various efforts concerning enhancement of the function of local authorities and human resource development are made.
- The roles of stakeholders in the synergy model do not overlap but are clearly defined. Collaboration with the various local people concerned is established.
- Specific efforts are made to increase the financial sustainability of the partner country, including measures to gradually reduce the cost burden on the donor side, and efforts to prepare the local budget.
- In implementing rural community activities, residents are motivated to actively participate in the activities by designing participatory rural activities and conducting social preparations (raising awareness of residents).
- Various efforts are made to generate synergy effects through linkage between local administration and residents; specifically, opportunities to exchange opinions among residents as well as between residents and administration are provided and technical support (regarding use of existing technologies and resources) from the facilitators of the government are gained.

#### **4) Impact of Multi-level Cooperation Approach on Poverty Reduction**

The effectiveness of the multi-level cooperation approach in rural community development was fully proved in the process of the evaluation study; however, the process starting with the formation of a synergy model using this approach to achieve poverty reduction remains unclear. That is because the information available on local conditions was limited in the completed projects, and the impact of the on-going projects could not be sufficiently measured.

Nonetheless, the Sulawesi Rural Community Development Project on which the field study was performed proved that a project could geographically expand the effectiveness of the model of rural community development, which was developed through the project. In this case, the synergy model of rural community development formed by the multi-level cooperation approach was accepted by the partner's implementing body and demonstrated its effectiveness. Such a geographical expansion is believed to enhance the possibility of improving the conditions of rural communities, thus contributing to poverty reduction in the medium and long term.

## **2-4 Conclusions (Verification of Hypotheses)**

This section examines the effectiveness of the multi-level cooperation approach, which is the objective of this evaluation study, based on the results of the analysis thus far. Two hypotheses are individually verified to answer the evaluation question as to whether or not a multi-level cooperation approach, which is directed at both local administration and communities to form linkages between them, is effective from the perspective of poverty reduction.

### **(1) Verification of the First Hypothesis**

**The multi-level cooperation approach could generate synergy in community development, by building linkages between regional governments and community members.**

Most projects technically supported regional governments through OJT for better implementation of participatory rural development at the community level. For example, the capacity building of regional government officials on the skills of socio-economic survey enhanced their respect towards the opinions of the community. As a result, most community development pilot activities were implemented based on the needs. Most projects also approached people at the community level through social preparation activities including conceptualization and participatory planning processes. As a result, community members participated in pilot activities at their own initiatives, which in turn led to the formulation and implementation of community development activities that were more responsive to local needs.

Besides these activities, some projects set up forums or venues among stakeholders of community development in order to create networks between regional governments and communities, as well as among regional government officers. The synergy generated as a result of these activities included: increased transparency of regional government procedures and activities, increased expectation towards the government by community members, enhanced sense of ownership and motivation towards community development by local people, and increased number of community development projects reflecting the needs of people. In sum, the multi-level cooperation approach in projects generated synergy in community development when the establishment of linkages between capacity development of regional governments and community members was achieved successfully.

### **(2) Verification of the Second Hypothesis**

**If a synergy model for community development using a multi-level cooperation approach is integrated into the policies and institutions of the partner country, the sustainability of the model and the development effects will expand geographically.**

Among the 10 projects selected for this study, only three

synergy models for extended outside the original project areas. These were: Sulawesi Rural Community Development Project, Philippines Training Service Project, Southeast Sulawesi Integrated Agricultural and Rural Development Project. In the case of Sulawesi Rural Community Development Project, the area that adopted the synergy model was expanded from four pilot villages to 73 villages/towns. In the case of Philippines Training Service Project, the synergy model (set up as a training program) was institutionalized or internalized through a ministerial ordinance, and was scheduled to be adopted in 33 training centers across the country. In the case of Southeast Sulawesi Integrated Agricultural and Rural Development Project, the synergy model was adopted by the counterpart organization upon completion of the project, and was extended outside the project areas. However, the activities of the synergy model were suspended as a result of the lack of funds caused by the Asian Economic Crisis of 1997. This unfortunate situation was recognized as a factor that hindered the sustainability of the synergy model, thus raised as an issue of concern.

Through the ex-post field study of Sulawesi Rural Community Development Project, impacts from the replication of the synergy model to wider areas were observed. Such impacts were increased opportunities for community participation in development activities, increased efficiency in service delivery by extension workers, and increased number of community development activities. The impacts were further multiplied by the creation of networks among regional governments and communities. On the other hand, while the sustainability of the synergy model was institutionalized by a district ordinance, there still was room for improvement of sustainability at the implementation level. For an example, the management system did not function well since a leader in one village did not practice the rule. As such, ensuring the sustainability of synergy model in both pilot project areas and extended areas remains an important issue.

When the replication of synergy models was supported by adequate institutional mechanisms, the resultant development effects were more positive. However institutionalization cannot be automatically attained by adopting the multi-level cooperation approach or through synergy effects. Clear strategies for institutionalization need to be incorporated within the project. Furthermore, though minor adjustments of the synergy model may be inevitable for replication, it is important to maintain a certain degree of accuracy in the original synergy model for it to be effective in new areas. In order to achieve this, adequate attention must be paid to the framework and process of replication, such as the implementation structure and the operating procedures of the synergy model. These factors need to be considered along with measures for proper institutionalization.

In conclusion, the multi-level cooperation approach can be

effective in community development if the above mentioned conditions are met. It also demonstrates high potential for being effective in poverty reduction. However, clear evidences were not identified through this evaluation study. This was mainly due to the lack of data on past projects and long-term impact analyses of on-going projects. Nevertheless, the field study suggested the possibility of long-term poverty reduction through the overall improvement of the regional socioeconomic conditions through wider application of the synergy model.

## 2-5 Lessons Learned

As presented above, the evidence from the case study showed that the multi-level cooperation approach was effective to some extent in introducing a new system in community development cooperation. However, difficulties were identified in implementing and extending the synergy models. The following are several lessons learned that can be useful to the planning and implementation of future projects adopting the multi-level cooperation approach.

### (1) Lessons Learned at the Planning Stage

- 1) The aims of the multi-level cooperation approach and concept of synergy model should be clearly understood by concerned individuals of both Japan and partner countries at the planning stage.
- 2) When selecting a counterpart organization, it is important to analyze organization and to select a suitable organization with potential for organizational and financial capabilities to operate the community development model to be applied.
- 3) By conducting an effective survey, ensure cooperation among all the stakeholders associated with community development activities. Also, ensure the roles and responsibilities of relevant organizations are clearly defined and interventions occur in a timely manner.
- 4) In selecting target areas, efficiency is an important factor given every project has its timeframe. In selecting target populations, give priority to existing organizations. Organizations formed through facilitation by projects can also be considered as long as they were formed at their own initiative. With regard to the empowerment of socially vulnerable groups, consider adopting the target approach specifically for those that are unlikely to participate at their own initiative.
- 5) When the replication of the synergy model is expected outside of the original target area, ensure that specific strategies including institutionalization of the model are incorporated in the project plan.

## (2) Lessons Learned during Implementation

- 1) In order to generate synergy, creating “opportunities” for direct dialogue between regional governments and communities need to be established. This is in addition to interventions at regional government (technical transfer through OJT) and community (social preparation activities and training) levels.
- 2) When the replication of the model cannot be effectively achieved through interventions at the administrative level, it is important to consider appealing to political authorities. This was seen in the case of Sulawesi Rural Community Development Project.
- 3) The capacity building of regional government officers with significant roles in the implementation of the synergy model is crucial.
- 4) To ensure the sustainability of the synergy model, it is important to minimize the amount of Japanese support to project operation costs. Also, gradually shift implementation and financial responsibilities to the counterpart organization.
- 5) In implementing rural development projects, incorporate social preparation activities as well as participatory development planning processes to enhance the problem solving ability of communities. Later, facilitate activities that utilize local resources and technologies.
- 6) Activities designed to increase the level of stakeholder motivation and initiatives are important to ensure sustainability of the synergy model within the project area as well as for extension in other areas.
- 7) In order for the synergy model to be accepted and budgets to be secured within the counterpart organization, the model needs to be supported by a proper institutional mechanism. This is in addition to the wide-spread acknowledgement of the synergy model’s effectiveness within the government.
- 8) In order to maintain the accuracy of the synergy model upon completion of cooperation, rules and procedures for the management of the synergy model should be established. Also, the awareness raising and extension activities of the synergy model need to be conducted by targeting regional governments, relevant development workers and communities that will be involved in the implementation and extension of the model.
- 9) In implementing the multi-level cooperation approach, various stakeholders in community development will be involved. As such, there should be room for flexibility within action plans.

### Appendix: Outcomes of the Introduction of Multi-level Cooperation Approach

Project Title	Outcomes
<b>Sulawesi Rural Community Development Project in Indonesia</b>	<p>The SISDUK (Participatory Rural Development Support System) was formed to target four pilot villages. At the time of the completion of the project in 2002, 170 proposals for development activities had been submitted by the community to improve their living condition and generate income within the framework of SISDUK. Among them, 40 projects were approved and the communities implemented and managed the projects. The government of Takalar District, an implementing agency, acknowledged the effectiveness of this system and issued an ordinance stipulating the system. As a result, the application of the SISDUK was expanded to 73 towns and villages in the district with the support of the district government. In particular, the following points were observed as outcomes of the multi-level cooperation approach from the field study.</p> <ol style="list-style-type: none"> <li>(1) The Takalar district government managed and implemented the SISDUK after the termination of the project. As of the end of 2003, more than 600 proposed rural development activities were submitted by the community and chosen for implementation.</li> <li>(2) Even though technical issues arose for implementing the SISDUK, community participation was active and the government side also showed expectations and enthusiasm about the implementation of the SISDUK under decentralization.</li> <li>(3) It was confirmed that human resources who support this system were developed at both the government and the community levels through the PLSD training courses.</li> <li>(4) Neighboring districts started to introduce participatory development, having been stimulated by the introduction of SISDUK by Takalar District.</li> <li>(5) It was confirmed that the community accepted and utilized the SISDUK, which was formed with the multi-level cooperation approach, as an effective system for decentralization. Based on this fact, the planning and implementation of SISDUK will contribute to the activation of rural areas on a continuing basis.</li> </ol>
<b>Bangladesh PRDP</b>	<p>A synergy model was formed by the project in the model areas. Thirty-nine village committees (VCs) were established as of October 2003 in order to implement the synergy model, and 21 small-scale infrastructure activities were conducted. It was confirmed that the implementation of these activities improved the living environment of the villages and strengthened community activities. A sense of duty ensued and self-reliance improved toward regional development.</p> <p>The synergy model provided an opportunity for exchanging information among parties concerned with rural development at the union level, which is the smallest unit of administration, and worked to establish vertical collaboration among the county, union, and villages. Furthermore, efforts were made to create horizontal collaboration among governmental facilitators in various fields. As a result, numerous synergy effects were generated between local administrations and the community, and the effectiveness of the model in activating the rural community was proved. The effectiveness of this model was acknowledged by the national government and other donors, and its spread to other regions is expected. However, the implementing body, the Bangladesh Rural Development Board (BRDB), faced some issues, including securing the system and budgets that support the model, as well as ensuring human resources who support the implementation and management of the model.</p>
<b>Rural Livelihood Generation Project in the Philippines</b>	<p>Thirty-five activities for income generation and four aquaculture activities were conducted in four areas as project models to increase the livelihood of the impoverished people (promoting employment and increasing income) who live in low-income municipalities in the Philippines. As a result, the project improved the skills and increased incomes of beneficiary communities.</p> <p>However, many introduced technologies were too advanced to be used in the sideline businesses for the poverty group, and there were more than a few models with low technical applicability. As a result, many activities were discontinued. Also, due to insufficient collaboration between the community and supporting local administration at the time of implementation, support from the town office was not obtained. Thus, synergy effects between administration and the community were not generated in the end. In addition, due to governmental reformation in the Philippines, organizational responsibility to support the model was not clearly defined and thus sustainability of the model were not ensured. It is fair to conclude that contributions of this approach to rural community development were limited.</p>

Project Title	Outcomes
<b>Cebu SEED in the Philippines</b>	<p>This project developed and strengthened the function of local administration and developed a rural development mechanism that continuously and effectively utilizes development resources in collaboration with the community and NGOs. Using this mechanism, opinions were coordinated between local administration and the community and an agreement was reached during the project. Consequently, a statement was signed among the province, the town, and the community, and 67 rural development activities were formed. Joint evaluation conducted by these concerned parties allowed sharing of the recognition of problems involved in development activities, thus boosting the awareness of rural development. From these facts, it was verified that the mechanism was an effective tool for rural community development. However, as the possibility of the mechanism's sustainability is closely associated with the political intentions of the governors of the province or mayors, it depends substantially on the intentions from the Philippines' side (future governors, etc.).</p>
<b>Training Project for Life Improvement in the Philippines</b>	<p>This project aimed at strengthening the capacity of the Agricultural Training Institution (ATI) in providing training for the community and enhancing its function as a facilitator for rural community development. Consequently, income generation activities in line with the local needs (improvement of nutrition and home economics by small gardens, improvement of community environments, etc.) were conducted on a trial basis in five villages of the model center. In the process of planning and implementing each activity, OJTs for the ATI staff, empowerment of the community, and training for local government officers (facilitators, etc.) were provided. It was confirmed that the implementation of the activities led to improvements in livelihood and living environments through the multi-level cooperation approaches to a training center, local administration, and the community. In addition, the implementation cycle of these activities (understanding of needs, planning and designing activities, implementation, monitoring and evaluation) and the implementation process of training at each stage were compiled into a draft manual. This was revised during the process of the implementation of the activities at the original three implementation centers, and organized as the Manual for Training for Agricultural Life Improvement (the implementation model). Before the completion of the project, the Department of Agriculture, the governing organization of the ATI, issued an ordinance to institutionalize the introduction and implementation of training on a step-by-step basis at 33 training centers throughout the country in accordance with the manual. At the time of the ex-post evaluation conducted by the overseas office in February 2004, the model was being implemented at a total of 19 training centers. The model has been smoothly disseminated and is expected to contribute to the activation of rural communities; however, the limitation of activity budgets for each center due to the reduction of the national budget has become an issue.</p>
<b>Participatory Rural Development Project in Sri Lanka</b>	<p>The objective of this project was to develop an effective participatory development method for linking rural villages and external society or resources in order to improve living conditions of isolated rural villages. To this end, a local university was selected as the supporting body for rural community development and efforts were made to generate synergy effects through the multi-level cooperation approaches to the local community, local administration and the university.</p> <p>As an outcome of implementation of the project, various community organizations led by rural development committees were formed in six model villages and 59 rural development activities were conducted. Training tours helped raise awareness of the local residents and lead to review of local industry; thus activation of rural villages and empowerment of residents were also observed. Local government officers visited villages and discussed about various issues with the residents as well. From these facts, the effectiveness of the participatory development method in rural community development was proven through the generation of synergy effects such as the development of a trusting relationship in community, the university and provincial government, activated activities of the residents, and prompt implementation of activities. However the relationship between the central and local governments needs to be strengthened in order to spread the method to other areas within Sri Lanka.</p>
<b>Southeast Sulawesi Agricultural and Rural Development Project</b>	<p>This project incorporated a participatory approach into agricultural and rural development activities. With support of the project, local administration verified an approach for planning, and operating rural development activities, with the participation of local residents (farmers). As a result of verification of the model in eight pilot areas, the area of paddy fields cultivated by farmers themselves expanded to 890 hectare, and the amount of wet-rice production increased from 2t/hectare to 3.5t/hectare, showing a drastic increase in agricultural development. Also, a stock fund (reserve fund) was introduced to increase sustainability of activities of community organizations in enhancing the capacity of residents. It was confirmed that this effort enabled many residents' organizations to continuously implement their activities. Since this model was easy to apply for the implementing body, the model was spread through independent application of approaches by the implementing body, the Ministry of Agriculture, prefectural government and the World Bank. This model expanded development activities in rural community development in terms of quality and dimensional quantity and generated effects such as continuation of rural development activities by the community. However, input cost is indispensable for the implementation of a model, and the spread of the model and expansion of the development effects seem dependent on the cost bearing capacity on the implementing body.</p>
<b>Rural Development Project in Laos</b>	<p>This project intended to develop methods and techniques for sustainable agriculture and rural development with community participation through the verification by residents. Village Committees were created in five pilot areas and systems of development activities were developed before the implementation of activities. As a result, water supply facilities were developed, the average rate of rice self-sufficiency reached 124.9%, and the amount of produced vegetables as cash crops were continuously cultivated. Improvement of the agricultural aspect was observed. Support for community capacity development enabled each Village Committee to formulate an annual activity plan. The implementation of the project facilitated the dissemination of cultivation methods introduced in the model at the community level, showing that the method is highly applicable at the resident level and effective in the pilot areas. On the other hand, the Vientiane provincial government, the counterpart of the project, has not yet specified a system to organizationally support the Center for Agriculture and Rural Development, which assumes the role of implementing and disseminating the model. This has become a problem in expanding the development effects demonstrated in the pilot areas.</p>
<b>Forest Conservation Project in Nepal</b>	<p>This project aimed to enable the community to independently maintain and manage rural resources including the conservation of river basins and forestry through the improvement of not only the capacity of concerned administrative officers but also the problem-solving capacity of local residents. The project improved conditions by means of technology transfer to administrative officers as well as approaches to local residents. In Phase 1 of this project, 634 rural activities and 199 capacity development activities targeting community organizations were implemented, and they were proven to be effective in improving the problem-solving capacity of the residents and activating rural resource development activities. In Phase 2, activities were implemented targeting villages. Village Conservation Committees were established in all of the 88 villages as of February 2002, and organizations were strengthened. Funds were created in 76 villages by the project to implement individual activities. In the project, the local administration worked to spread the model to other areas; however, securing institutional and budgetary systems from the government of Nepal remained as a task. Moreover, the problem that emerged in the approach to the community was that it took long for the community to initiate plans for forest conservation activities.</p>
<b>Sokoine Rural Development Project in Tanzania</b>	<p>This project verified the Sustainable Utilization Area (SUA) method as a rural development method emphasizing sustainability while utilizing existing techniques and resources, which were lacking in traditional rural development methods. As a result of adopting this method in two model areas, local needs were extracted from discussions and presentation of problems given by community itself, and they were then embodied in activities. These needs had long been difficult to detect using traditional methods provided by the local administration. As a result, various activities were identified and formulated, and they were implemented and managed by the community organizations. Such activities included hydro mills (flour milling using water power), apiculture, conservation of agricultural soil, agriculture in valleys, promotion of livestock, and wind power generation. In the project, the SUA method's cycle, which flows from the understanding of problems by residents themselves to the formulation of community development plans, and the development and implementations of rural development activities by community organizations, was proved effective in rural community development. Consequently, the effectiveness was recognized by the government of Tanzania and the prefectural government in the model area. Sokoine University of Agriculture is currently the implementing body of the SUA method; however, in order to spread the method independently, the university still needs to secure budgets and collaborate with government agencies and other development organizations. This is a future task for the university.</p>

# Chapter 3 Information Technology (IT)-related Human Resources Development and the Utilization of IT in Various Fields

## 3-1 Outline of Evaluation Study

### (1) Background and Objectives

Prior to the adoption of the Okinawa Charter on Global Information Society at the Kyushu-Okinawa G8 Summit in July 2000, the Japanese government announced its Comprehensive Cooperation Package to Address the International Digital Divide. The four pillars in this comprehensive cooperation package are as follows.

- a. Contributing intellectually to policy and institution-building
- b. Developing and training human resources
- c. Building an information technology (IT) infrastructure and providing assistance for network establishment
- d. Promoting the use of IT in development assistance

JICA has so far implemented more than 60 IT-related cooperation projects in about 23 countries. Human resources development for IT that provides training at national research institutes and higher education institutes has been especially promoted in an active way. Recently JICA has promoted IT utilization in its cooperation projects in areas such as education, health and medical care, administration, poverty reduction, and the environment with an aim of enhancing the efficiency and effectiveness of these projects. Consequently, this evaluation study aims to extract lessons and measures to be considered when planning new projects in IT-related fields in the future.

### (2) Evaluation Study Period and Team

#### 1) Evaluation Study Period

October 2003 to March 2004

#### 2) Evaluation Study Team

The evaluation study was organized and supervised by the Office of Evaluation of JICA. The Office of Evaluation and the external consultants (UFJ Institute) conducted the actual study and prepared the report under evaluation policies developed by the Evaluation Study Committee consisting of JICA information technology task team, personnel concerned with evaluated projects, and the following two evaluation advisors.

#### Evaluation advisors

Kenji Saga

Research Fellow, Communications Research Laboratory

Yoshiyasu Takefuji

Professor, Faculty of Environmental Information, Keio University

### (3) Projects Subject to the Study

Taking into account the rapid and global spread of IT utilization, diversified forms of IT application, and advancement of IT in recent years, seven projects completed after 1997 were selected to study IT human development. As for the study of IT utilization in various fields, five projects were selected with specific possibilities of IT application in the four areas of education, health and medical care, poverty reduction, and the environment, all of which are priority areas of ODA (Table 3-18 and 3-19).

## 3-2 Framework of the Study

### (1) Viewpoints in Evaluation

Evaluation questions for IT human development and IT utilization in various fields were as follows.

- a. IT human development  
What approaches were used in JICA's cooperation for IT human development in the past, and how did they contribute?
- b. IT application in various fields  
What are the possibilities for IT utilization to improve efficiency and effectiveness of cooperation projects and what needs to be considered?

### (2) Evaluation Methods and Limitation

Reviews of project-related documents, interviews, and questionnaire surveys with relevant individuals were adopted. As for the seven projects for IT human development, questionnaire surveys were conducted on implementing bodies of the partner countries (Questionnaire surveys were not conducted on the projects for IT utilization because insufficient time had passed after the completion of cooperation). Since field studies were not conducted, there is a limitation to the evaluation study regarding the amount of information and viewpoints obtained from the field.

**Table 3-18** Target Projects for IT Human Development

	Project Title	Period	Country/Region
1	The Research Center for Communication and Information Technology (ReCCIT), King Mongkut's Institute of Technology, Ladkrabang (KMITL)	1997. 1 -2002. 9	Thailand
2	The Computer Software Technology Training Center of SSTC	1993.11 -1998.11	China
3	Software Development Institute	1995. 1 -1999.12	Philippines
4	Information Technology Training	1997. 3 -2002. 3	Viet Nam
5	AI System Development Laboratory	1995. 3 -2000. 3	Malaysia
6	Information Technology Upgrading Project	1999.12 -2002.11	Jordan
7	Polish-Japanese Institute of Computer Techniques Project	1996. 3 - 2001. 3	Poland

**Table 3-19** Target Projects for IT Utilization in Various Fields

	Field	Project Title	Period	Country/Region
1	Education	Information and Communication Technologies (ICTs) Capacity Building at the University of the South Pacific	2002. 7 -2005. 6	The South Pacific Region
2	Health and medical care	Project for Improvement of the Maternal and Child Health In-Service Training System and Programs	1997. 6 -2002. 5	Ghana
3	Poverty reduction	The Project on Strengthening Sulawesi Rural Community Development to Support Poverty Alleviation Programs	1997. 3 -2002. 2	Indonesia
4	Environment	The Forest Fire Prevention Management Project (Phase 1)	1996. 4 -2001. 4	Indonesia
		The Forest Fire Prevention Management Project (Phase 2)	2001. 4 -2006. 4	Indonesia

### 3-3 Evaluation Results: IT-related Human Resources Development

#### (1) Summary and Classification of Projects

##### 1) Classification by Recipients and the Nature of Cooperation

Looking at the seven projects, there are primarily two approaches in JICA's cooperation for IT human development. One is in the area of developing academic capacity to upgrade course programs in schools and the level of research in laboratories, which targets undergraduate and graduate schools in IT. The other is in the area of developing IT professionals who will play an active role in the industry. In the approach to IT professionals, technologies in training management are transferred to the counterparts by setting training institutions as implementing bodies. Then, in order to disseminate the effects of the projects throughout the country, IT professional training is usually offered to external professionals.

##### 2) Conditions after the Completion of Cooperation

Each project was assessed as having achieved certain outcomes. In projects for strengthening the capacity to manage training, more effective results were obtained from the projects that extensively contain activities for establishing the recognition of training institutions, collaborating with other organizations, reviewing course content in response to post-course student questionnaires, and emphasizing development of instructors.

#### (2) Contributing and Inhibiting Factors of Projects and Lessons Learned

##### 1) Analysis by Contents and Development Stages

In some cases, isolated problems result from a lack of information gathered through preparatory studies and an inflexibility in coping with rapid changes in needs, which are unique attributes to the IT area. Preparatory studies (currently renamed ex-ante evaluations) are conducted several times before a project starts; however, most studies are too short to precisely grasp the local needs. Also, due to the rapid pace of change in the IT environment, it is believed important to secure and develop human resources with a full knowledge of local needs. Although some requested technologies are new at the time of preparatory study, they may be obsolete by the time the project starts a year later. Developing countries sometimes request advanced themes even though they have no receiving capacity. Therefore, it is necessary to select technologies and themes that are applicable and potentially useful for the next several years, fully reflecting the needs of partner countries.

Furthermore, when considering the rapid changes in the IT field, it is necessary to formulate and implement projects from broad perspectives and with a practical and strategic approach. Specifically, such perspectives include formulating flexible project plans, dealing with the obsolescence of equipment, capacity building to empower counterparts and implementing bodies to implement research and training on their own after the completion of cooperation, and distinguishing the cooperation projects undertaken by the public sector from IT training undertaken by the private sector so

that duplication of public and private efforts would be avoided (e.g., issuing widely acknowledged certificates, or targeting specific customers by selecting training participants from mainly public servants).

## 2) Equipment and Budget

Similar problems are found in each project concerning procurement, selection, and allocation of equipment. Given the fact that technological innovation in the IT field is rapid in terms of both hardware and software, it is important to supply equipment on a step-by-step basis by keeping the procurement of equipment to a minimum in the initial year and then introducing the rest starting in the second year. For example, it would be effective to set up model standards for the introduction of equipment and apply them in line with the implemented projects.

It is generally said that both hardware and software need to be updated at least once every three years, although it is largely a matter of the purpose of use and conditions in the partner country. Therefore, it is necessary to establish a management system by taking into account software updates and hardware maintenance when formulating projects for IT human development. Also, in order to secure sustainability, a project needs to incorporate a mechanism that allows the counterpart to deal with the update of equipment after completion of cooperation.

## 3) Human Resources

In projects for IT human development, demand and supply of IT experts are not balanced, therefore it is difficult for professionals from Japan with advanced skills to serve as long-term experts overseas. Also, changes in the IT field occur at a considerably fast pace and diversification has further advanced, thus making it impossible for one professional to cover all issues. In response, the number of long-term experts have recently been minimized and more projects employ short-term experts who are well informed in new technologies. It is necessary to fully examine individual cases to gain an insight as to how human resources should be allocated to achieve balance and effectiveness.

## 4) Creating and Sharing Knowledge through Projects (Knowledge Management)

One of the characteristics of projects for IT human development is the turnover in local professionals, as often seen in the area of developing IT professionals. Turnover in personnel means a loss of the knowledge and know-how that was cultivated in the cooperation project. Training programs are basically and easily digitized in many projects for IT human development. It is desirable to periodically digitize the contents of knowledge acquired in education so that knowledge or know-how accumulated thus far by the counterpart can be trans-

ferred to other personnel within the organization or to a new counterpart if the counterpart leaves the job.

However, there are some problems associated with implementing such knowledge management. Digitized teaching materials developed during the project can be easily proliferated outside the implementing body. In considering copyright protection, some organizations are reluctant to digitize teaching materials and other outputs of the project. It is, therefore, necessary to make clear agreements and policies regarding the digitization of teaching materials and other outputs as well as the ownership of copyrights. As IT quickly changes, the knowledge and know-how required in developing countries and international cooperation projects needs to change. Those efforts on knowledge management not only promote information sharing, but can also become a platform on which they can create new community know-how.

In the meantime, management of IT projects requires broad knowledge and information gathering capacity, covering everything from hardware aspects such as procurement and installation of equipment to software aspects that change rapidly. These are attributes that are different from projects in other areas. However, in reality, Japanese personnel involved with the projects are stationed in developing countries where information gathering and communication with Japan are hindered, and they are prone to fall into information isolation. Therefore, in order to smoothly promote IT projects, JICA-Net is expected to be utilized actively as a means of sharing knowledge and disseminating improved methods.

## 3-4 Evaluation Results: IT Utilization in Various Fields

### (1) Projects Subject to Evaluation

#### 1) Education: Information and Communication Technologies Capacity Building at the University of the South Pacific

The University of the South Pacific (USP) is a higher edu-



Ground station of USP-Net (Information and Communication Technologies Capacity Building at the University of the South Pacific)



education institution co-founded by 12 small island countries in the South Pacific region in 1969. The USP provides distance learning courses to students in the region with consideration given to geographic conditions, and 45% of 9,000 enrolled students take classes from remote locations. A distance learning network through satellite communications called the USP-Net was constructed with Japan's grant aid in cooperation with Australia and New Zealand in 1998. However, due to a lack of technical skills and experience, it was difficult for them to develop high quality distance learning course content using multimedia technology. Also, for social and economic development in the South-Pacific region, human resources development and promotion of research and development in the area of information and communication technology are important. Accordingly, cooperation is under way in the areas of (1) computer science, (2) distance education, and (3) research and training in IT for the social and economic development.

## 2) Health and Medical Care: Project for Improvement of the Maternal and Child Health In-Service Training System and Programs in Ghana

The purpose of this project is to develop human resources by developing and introducing a system that effectively implements in-service training for health and medical care professionals in Ghana. Health and medical care staff need to acquire new skills and knowledge on a continuing basis; however, information on in-service training was not thoroughly spread to all the people, and training records were not kept and managed in a uniform manner. Although many training materials had been developed, such efforts failed to deliver sufficient results due to the unsystemized training materials and poor management of training registration and recording system. In view of these factors, in-service training (IST) was developed in three focus regions to establish system components (information system, classification of training courses, development of training logbook, and monitoring and evaluation), issue training logbooks, classify training courses, and construct regional training centers.

## 3) Poverty Reduction: Project on Strengthening Sulawesi Rural Community Development to Support Poverty Alleviation Programs in Indonesia

Under this project, the provincial PMD (Pembangunan Masyarakat Desa, or village development bureau) of South Sulawesi Province and the district PMD (prefecture development bureau) of Takalar District were designated as JICA's counterpart entities. The purpose of this project was to enhance the planning and management capacity of participatory community development programs, including programs to alleviate poverty. The main activities included raising the social capacity building of the community of the targeted four

villages, establishing administrative systems to promote participatory development, and training people related to community development to achieve development administration based on the needs of the community. In this project, a tool called Desa Maju was introduced as an information interface to provide the community with easy access to living-related information, including agriculture, fishery, health and medical care. IT was also used to transmit voice data via telephone lines from the server to public phones or special terminals. This provided the community with a variety of means and more opportunities to access useful information outside the village. The residents are now able to compare their lives with those outside their villages, marking the first step toward improving their own livelihood.

## 4) Environment: Forest Fire Prevention Management Project, Phase 1 and 2 in Indonesia

Every four or five years, forests in Indonesia are damaged by uncontrolled fires during the dry season. Smoke from forest fires reaches neighboring countries, affecting flight schedules and causing health problems, and has become an international concern. Indonesia had to take immediate action to control forest fires. In response, in phase 1 of the project, JICA provided cooperation to improve management methods and promptly respond to forest fires at the central level as well as methods to prevent forest fire and extinguish incipient fire at the regional level. In phase 2, which is currently under way, forest fire prevention and incipient fire fighting measures are promoted to conserve national parks (four designated national parks), using the techniques developed in phase 1. The purpose of this project is to upgrade the capacity to extinguish incipient fire on the scene and prevent forest fires. It employs methods that can be easily implemented, sustained, and disseminated using Indonesian resources.

In this project, satellite data received directly from the NOAA, a US artificial satellite, is analyzed to detect a hot spot. Then necessary warning information, consisting of image data, information on latitude and longitude, the conditions of haze (fog, mist, smoke), and others, are provided to the Ministry of Forest as well as related organizations inside and outside of Indonesia.

## (2) Lessons Learned on IT Utilization from the Projects for IT Utilization in Various Fields

### 1) Lessons Learned from Each Project

This evaluation study chose one project each from the four fields of education, health and medical care, poverty reduction, and the environment. The lessons learned from each project are shown in Table 3-20. The results of the study extracted the following points to be considered for implementing more effective and efficient projects utilizing IT.

In the USP project in Fiji, it was pointed out that it is nec-

essary to establish a mechanism to minimize turnover in staff that's in charge of developing teaching materials for distance education in order to enable users (students) to study on their own. The frequency of updating information was an issue rather than the appropriateness of IT as a means of acquiring information in the Project on Strengthening Sulawesi Rural Community Development to Support Poverty Alleviation Programs in Indonesia. From these two projects, it was found important to establish a support system from a perspective of what the user wants. On the other hand, from the Project for Improvement of the Maternal and Child Health In-Service Training System and Program in Ghana and the Forest Fire Prevention Management Project in the Republic of Indonesia, the importance of establishing a system to convey information from one person to another or from one organization to another was recognized. In addition, the Forest Fire Prevention Management Project in the Republic of Indonesia posed a question as to what to convey, and the importance was emphasized of fostering the ability to make strategic decisions needed to select appropriate information.

Thus, based on the reports of the projects, establishing a support system to fulfill the needs of users, constructing a framework to convey information, and acquiring judgment to make decisions toward achieving their goals based on the information gathered were confirmed as the conditions for effective utilization of IT.

## 2) Need for System Design that Clarifies the Role of IT

In order to promote effective IT utilization in various JICA projects, it is important to clarify the position of IT utilization and design a system that includes a management system for post introduction. Since points of concern at the time of IT installation differ from project to project and affect project activities, it is desirable for IT staff who can deal with

these operations to participate in the projects from the formulation to the implementation stages of projects.

## 3-5 IT-related Human Resources Development and IT Utilization in Various Fields: Prospects from Both Viewpoints

IT professionals nurtured by the IT human development projects undertake operations while promoting IT utilization in various fields of each country. What might be useful as a means of connecting IT human development projects and projects for IT utilization is strategic knowledge management. This method forms two networks: a network for human development targeting various levels (vertical network), and a network of IT utilization in various fields (horizontal network). With these networks, the outcomes obtained from IT human development projects will be shared and utilized by projects for IT utilization. Then, its outcomes will be introduced and fed back as new applications of IT in human development projects. The quality and contents of IT human development projects are upgraded, and this should occur continuously so as to put in motion a positive cycle. Here, new knowledge is created that goes beyond the mere sharing of information and knowledge. The second viewpoint is that the international or regional dissemination developed from collaboration of individual projects. Collaboration within one country will expand to other countries in the region through the sharing of information and knowledge. South-South cooperation such as Third Country Training is a good example.

IT human development projects and projects for IT utilization will expand in a spiral manner through this strategic collaboration in two directions: upgrading content and geographical dissemination. This sense of purpose is important for developing and utilizing JICA's knowledge management.

**Table 3-20** Lessons Learned from Each Project

Field	Lessons for Overall Project	Lessons for the Utilization of IT
Education: USP	It is important to promote the development of teaching materials for distance education.	1) It is necessary to establish a mechanism to minimize turnover of IT staff. 2) It is necessary to create a knowledge management system within the organization. 3) It is necessary to abolish regulations on the network's intersystem control.
Health and medical care: Ghana	It is important to create incentives for utilization of systems, such as the requirement of participation in training to get promotion.	It is important to establish a system to transmit information as a prerequisite for the utilization of IT.
Poverty reduction: Sulawesi	It is important to have easy access to information for sustainable community development.	It is important to develop human resources who can update information frequently and appropriately.
Environment: Forest Fire Prevention	It is necessary to coordinate fire-fighting activities, from discovery to extinction.	It is important to build capacity to analyze collected data as a prerequisite for the utilization of IT.

# Chapter 4 Water and Poverty in Africa

## 4-1 Outline of Evaluation Study

### (1) Background and Objectives

Japan has given top priority to the water sector in providing poverty control measures to address basic human needs (BHN), improve living and hygiene conditions, and generate livelihoods in African countries. Japan has implemented 1,347 projects\* in the water sector since 1974 (at the time of this evaluation study), accounting for about one third of all the projects provided under Japan's ODA. The volume of input from Japan's ODA to the water sector in Africa is large, and the effectiveness and impact that Japan has achieved in the sector are substantial as seen by the number of beneficiaries and implementation systems of projects that focus on sustainability.

In response to global trends, Japan's cooperation in the water sector focuses on integrated water resources management for sustainable development. This is an integrated approach that includes not only hardware assistance but also software assistance such as forming and strengthening water committees, organizational building, enlightening the community, and sanitary education. It is now being applied in Africa. This is expected to bring about the establishment of a sustainable system of water resources development as well as water supply and management systems in the target areas.

JICA launched a thematic evaluation on water and poverty in Africa in October 2002. The evaluation was conducted in preparation for two important international conventions scheduled for 2003 in Japan, the World Water Forum and TICAD III, in order to evaluate their challenges and performance in the water sector in Africa and clarify specific measures for effectively and efficiently supporting sustainable development in the water sector.

The objectives of the evaluation study are to verify the effectiveness of the integrated approach, which consists of several projects and activities, and obtain lessons and recommendations that can be useful for planning and designing similar future projects in the same sector through evaluation of JICA's past projects in the water supply sector targeting the

poverty group in Africa.

### (2) Evaluation Study Period and Team

#### 1) Evaluation Study Period

The study was conducted from October 2002 to March 2003. As part of the study, field surveys were conducted in Zambia and Zimbabwe in November and December 2002.

#### 2) Evaluation Study Team

The evaluation study was entrusted to KRI International Corp.

### (3) Projects Subject to the Study

Zambia and Zimbabwe were selected as the target countries for the study since both countries are located in a highly impoverished area of Sub-Saharan Africa and face various development issues in the water and related sectors, including serious water shortages, difficult supply of safe water, the spread of infectious diseases such as HIV/AIDS and malaria, and limited access to primary education.

In Zimbabwe, the Project for Rural Water Supply in Binga District (grant aid) was targeted in the study (Table 3-21).

In Zambia, three projects, the Water Supply Project in the Satellite Area of Lusaka, the Lusaka District Primary Health Care Project, and the George Community Empowerment Program, were considered as one program and targeted in the study (Table 3-22).

## 4-2 Framework of the Study

### (1) Evaluation Questions

The following evaluation questions and sub-questions were asked to verify the effectiveness of the integrated approach.

#### 1) Evaluation Questions

Is the integrated approach effective for projects regarding sustainable and safe water supply that target the poverty group? Also, how much impact does it have on improving the living conditions of the poverty group in terms of effect

Table 3-21 Target Projects in Zimbabwe

Project for Rural Water Supply in Binga District (Phase 1)	1997-1998	560 million yen	Binga District in Metabeleland North	<ul style="list-style-type: none"><li>• Procurement of borehole drilling equipment (1 set)</li><li>• Construction of 5 borehole water supply facilities</li><li>• Formation of 5 water point committees</li></ul>
Project for Rural Water Supply in Binga District (Phase 2)	1998-1999	170 million yen	Binga District in Metabeleland North	<ul style="list-style-type: none"><li>• Construction of 25 borehole water supply facilities</li><li>• Formation of 25 water point committees</li></ul>

\*This number includes Development Studies, Project-type Technical Cooperation, and Grant Aid.

**Table 3-22** Target Projects in Zambia

Title	Cooperation scheme	Period	Target area	Project summary	Links with other projects
<b>a. Water Supply Project in the Satellite Area of Lusaka</b>	Grant Aid	B/D 1993.3-1993.10 Implementation 1994.4-2000.3	George Compound	Construction of piped water system with ground water as the water source in order to supply safe water in a sustainable manner to the target area where water born diseases such as cholera were prevalent.	The establishment of an operation and management system for the water supply program was implemented in cooperation with CARE, an NGO that was then operating in the area funded by DfID.
<b>b. Lusaka District Primary Health Care Project</b>	Project-type Technical Cooperation	R/D 1997.2 Implementation 1997.3-2002.3	Lusaka District (a pilot project was implemented in George Proper, a part of George Compound)	To improve the PHC management system in Lusaka District, activities such as promoting community-based PHC activities, strengthening referral systems, and promoting school health activities were carried out. The second phase of the project started in July 2002.	George Compound, where the water supply system was provided by the above project, was selected as the pilot area for the community-based PHC activities. Activities such as improvement of safe water usage and sanitary conditions, and growth monitoring of children were carried out with the participation of community groups.
<b>c. George Community Empowerment Program</b>	Community Empowerment Program	1999.10-2003.1	George Compound	For sustainable operation and maintenance of the above water supply system under the partnership of Lusaka City Council, Lusaka Water and Sewage Company, and area-based community groups, capacity building of these organizations and improvement of management system were carried out.	George Compound, where the water supply system was provided by the first project, was selected as the above project. For health education, coordination was carried out concerning its approach with the above PHC project.

and efficiency compared to the traditional sector-wide approach?

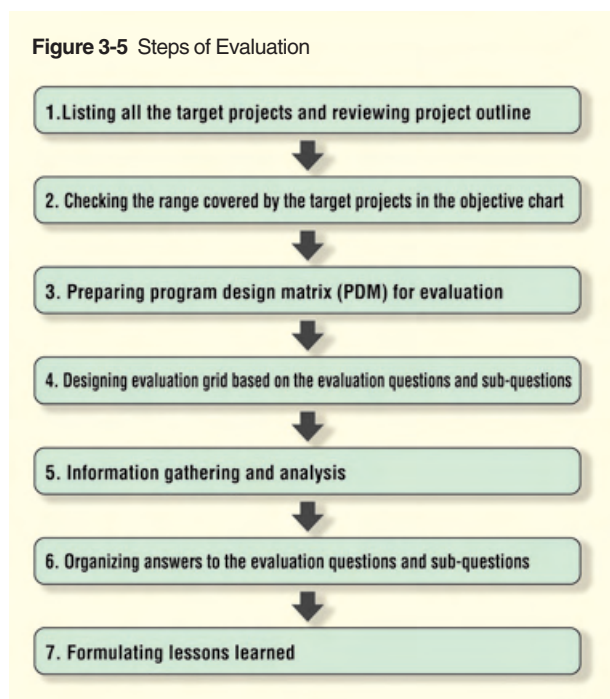
**2) Sub-questions**

a. What kinds of approaches are effective in efficiently and effectively providing sustainable and safe water supply for the poverty group in the Sub-Saharan Africa?

b. What kinds of approaches, with the establishment of the water supply sector and sustainable management system as the entry point for community development, are effective in increasing not only the direct impact of safe water supply but also impacts that eventually lead to the achievement of overall goals, such as improvements in living conditions for the poverty group and poverty reduction?

c. What social and economic conditions are required from the government of a partner country and community for an integrated approach to be effective for the poverty group in African countries?

**Figure 3-5** Steps of Evaluation



**(2) Evaluation Methods**

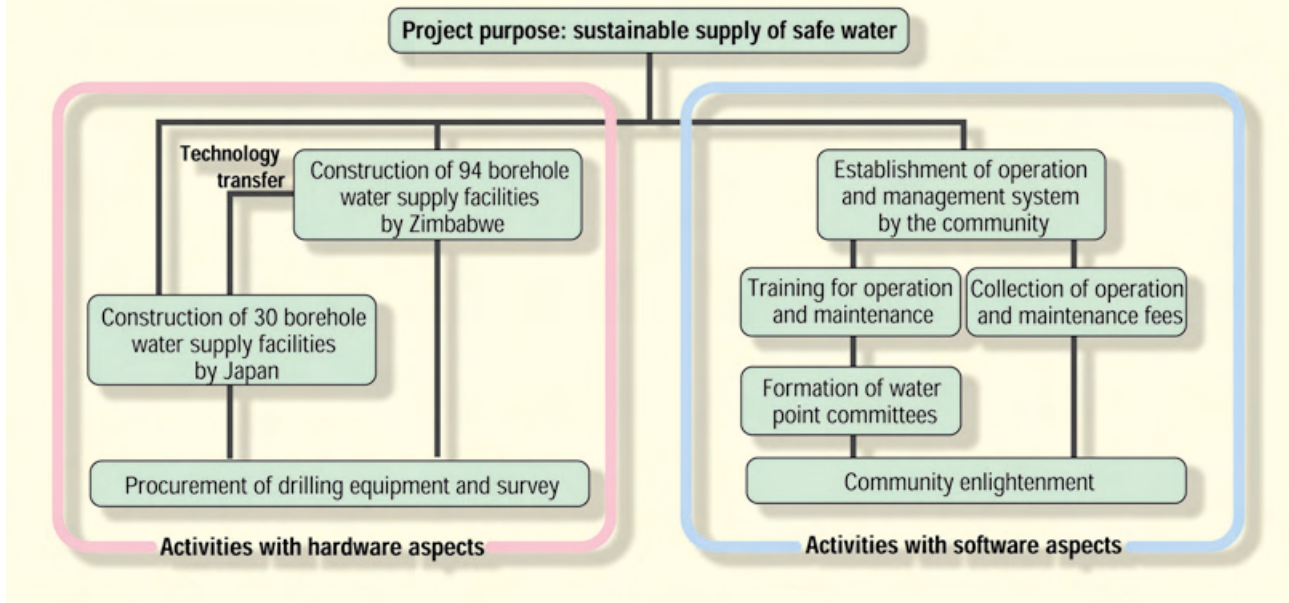
The steps of evaluation used in the study are shown in Figure 3-5.

**4-3 Evaluation Results by Country**

**(1) Zimbabwe**

**1) Cooperation Outline**

Development in the water sector in Zimbabwe has proceeded under a decentralization policy. The Ministry of Local Government and National Housing and the Ministry of Local Resources and Water Development have promoted sanitation education and water supply in rural areas for over 10 years. The Integrated Rural Water Supply and Sanitation Program (IRWWSP) has been implemented since 1987, and

**Figure 3-6** Relation between the Purpose and Major Activities in the Project for Rural Water Supply in Binga District

in 2002, the water coverage rate in rural areas increased from an initial 25% to 80%. However, it is expected that the coverage rate may have decreased recently due to an increase in the number of areas in need of water supply facilities under the resettlement program. Under these circumstances, by carrying out environmental conservation, including water supply and sanitary environment, as the priority field for aid, Japan has provided support to secure water resources in the rural and urban areas.

The Project for Rural Water Supply in Binga District is the only project that Japan has implemented in the water supply sector since 1996. The project purpose was a sustainable supply of safe drinking water in the target communities. The target group was 84,000 villagers living in 12 of the Binga District's 21 wards who needed urgent assistance.

This project included awareness campaigns for community members and the formation of water point committees for operation and maintenance of water facilities (software activities) that were carried out in parallel with the procurement of necessary equipment and materials, as well as the construction of borehole water supply facilities using hand pumps (hardware activities) (Figure 3-6). These software activities were sub-contracted to Save the Children Fund (SCF), a British NGO with experience in the field of water supply in Binga District, and they implemented their tasks for about 40 communities, including those for whom water supply facilities were constructed using Japan's aid. The study team decided to evaluate this project as an integrated approach in the water sector that combines hardware activities represented by the construction of water supply facilities with software activities represented by community enlightenment and organiza-

tion building.

## 2) Impact on Poverty Reduction and Sustainability in the Water Supply Project (Impact and Sustainability)

In terms of impact on poverty reduction, the biggest contribution of the project was an increase in the number of villagers with access to safe water through the construction of borehole water supply facilities. According to the results of a questionnaire survey, the percentage of borehole users increased sharply from 10.6% to 73.8% over five years in the sample villages where boreholes were constructed.

The respondents who used a borehole as a water source were compared with those who used other water sources. As shown in Table 3-23, the percentages of respondents who stated that diarrhea, eye disease, and skin disease had decreased over five years were 72.8%, 65.6%, and 84%, respectively, among borehole users, whereas they were 29.3%, 41.3%, and 56% among non-borehole users; the percentages of borehole users were higher than those of non-borehole users as a whole (Figure 3-23). In particular, a significant difference in the incidence of diarrhea was observed. It may be concluded that the incidence of water-borne dis-

**Table 3-23** Incidence of Water-borne Diseases (Comparison with 5 years ago)

Disease	Borehole users (n=125)		Non-borehole users (n=75)	
	Decreased		Decreased	
	No. of people	%	No. of people	%
<b>Diarrhea</b>	91	72.8	22	29.3
<b>Eye disease</b>	82	65.6	31	41.3
<b>Skin disease</b>	105	84.0	42	56.0

JICA Study Team (November 2002)



A borehole water supply system using a hand pump, which was constructed under the project (Project for Rural Water Supply in Binga District in Zimbabwe)

eases decreased among borehole users.

Although sanitation practices improved over the five years, including encouraged hand washing and improved ways of water storage, no significant difference was observed between villages with borehole construction and those without it; it hasn't been determined if the project contributed to this difference. Fetching water is normally a task for women and girls in Binga. Although the number of borehole users increased from 18 to 125 over five years, only 52 respondents, which comprised one third of the borehole users, noted a reduction in time spent fetching water. Construction of boreholes does not necessarily reduce the time needed for fetching water as it depends on the location of the water source from the house, and some may prefer going to borehole, even when the distance is far, in order to draw safe water.

In summary, it was confirmed that access to safe water improved in the villages where boreholes were constructed in the project and the incidence of water-borne diseases decreased among borehole users. However, other impacts on the living conditions in the target communities were not identified in this study.

On the other hand, in terms of sustainability of the water supply project, some borehole water supply facilities were not in use due to a breakdown at the time of the evaluation study. During the construction of a borehole, the water point committee was advised to collect maintenance fees from users in preparation for future breakdowns. Many committees subject to the field survey did collect some fees and saved them in fund for a period of time; however, at present none of the water point committees collect fees from users. This is due to serious economic conditions brought on by the severe drought in the area and the high inflation rate, which has exceeded 170% annually.

During the implementation stage, activities such as community enlightenment and formation of water point committees for operation and maintenance of the facilities were sub-

contracted to SCF, an NGO that had many years of experience in the water sector in the area. Out of 10 borehole water supply facilities visited by the study team, eight had water point committees. In summary, it is said that although a water point committee was formed at each facility, operation and maintenance systems capable of coping with possible future breakdowns have yet to be established. The reasons may be attributed to: (1) the fact that the members were not fully trained in operation and maintenance due to time constraints; (2) no follow-up was provided by SCF or the Rural District Council; (3) many residents did not fully understand the practice of community-based operation and maintenance; and (4) the Rural District Council did not have an appropriate system to support the community.

## (2) Zambia

### 1) Cooperation Outline

Zambia's urbanization rate of 43.6% is higher than other Sub-Saharan African countries. Areas demonstrating rapid population increase are unplanned settlements where infrastructure remains undeveloped. There are 33 unplanned settlements in Lusaka, whose population accounts for more than 60% of the city's total population. In these unplanned compounds, access to public services was limited, resulting in poor sanitary conditions.

Under these circumstances, the government of Japan specified cost-effective health and medical services as a priority issue for assistance in Zambia. Accordingly, several projects in the water supply sector were implemented in the peri-urban areas of Lusaka, where the population consists mainly of low-income people.

A synergy effect was sought from three projects that were implemented in George Compound surrounding Lusaka by coordinating activities throughout the process of planning and implementation; namely, the Water Supply Project in the Satellite Area of Lusaka, the George Community Empowerment Program, and the Lusaka District Primary Health Care Project. In other words, the PHC pilot project and the George Community Empowerment Program were implemented for the purpose of sustaining the benefits provided by the construction of water supply facilities with grant aid. These three projects can be grouped together as an integrated approach for safe water supply called the Program for Improvement of Living Conditions.

Under the Program for Improvement of Living Conditions, grant aid (construction of facilities), the George Community Empowerment Program, and part of PHC project were all provided to achieve safe water use in the George Compound. Improvement of health and hygiene conditions was the goal in combination with the rest of the activities in the PHC project, such as improving the living environment and improving health and hygiene services (Figure 3-7).

The main activities of these three projects are as follows.

a. Water Supply Project in the Satellite Area of Lusaka (Water Supply Project)

The project purpose was to achieve a stable supply of safe water for the residents in the target communities. Specifically, in order to supply safe water in a stable way in George Compound, where residents suffer from many water-borne diseases such as cholera, the project divided George Compound into eight service areas and constructed a piped water supply system with a borehole as a water source in each area. In parallel, operation and maintenance systems were established by setting up the George Main Division as a management body and facilitating participatory operation and maintenance by user communities at the public tap level. Also training in hygiene education was conducted to improve awareness of users. The main activities included: (1) assistance and guidance to the Lusaka Water and Sewage Company (LWSC) for improving the operation and maintenance system; (2) planning for the organizational management of the George Main Division that provides water supply services along with LWSC; and (3) advice and training for staff in the office. In addition, the project conducted socio-economic surveys at the household level and promoted enlightenment activities together with the staff members of the Lusaka City Council (LCC), who were loaned to the George

Main Division.

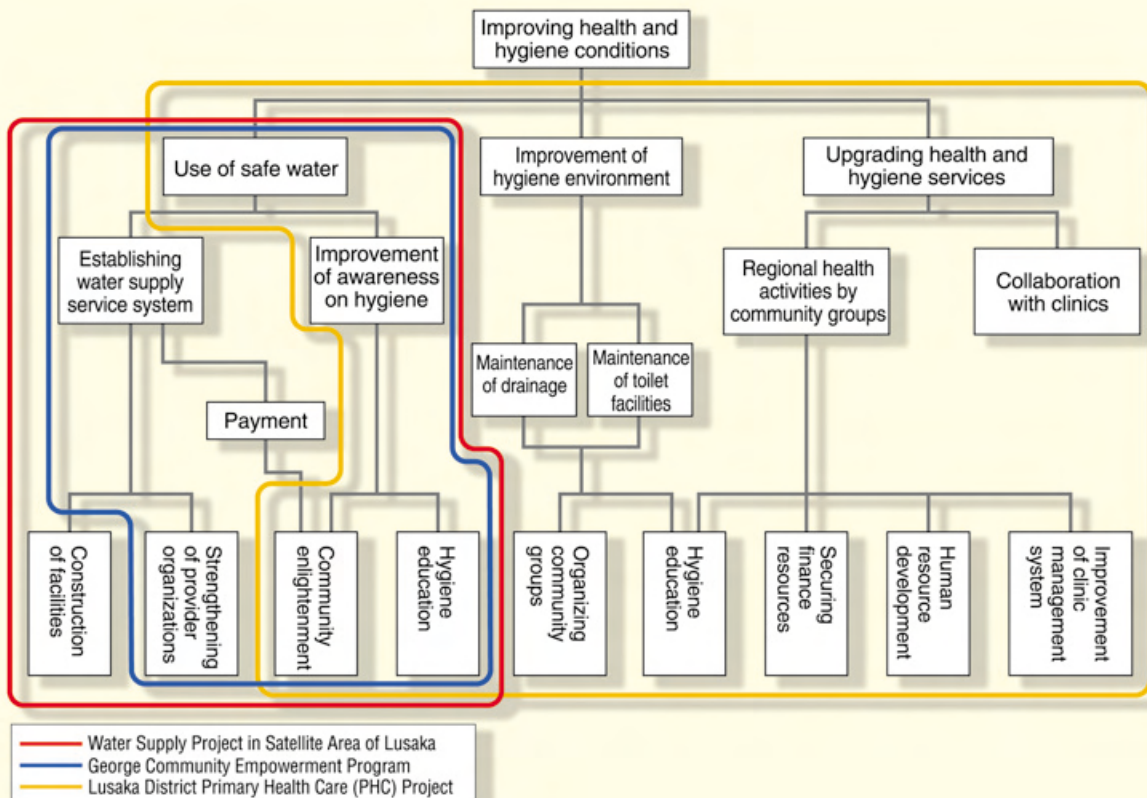
Activities for building an operation and maintenance system for water supply services were carried out in collaboration with CARE, an NGO that was financially supported by DfID.

b. Lusaka District Primary Health Care Project (PHC Project)

In order to improve the PHC management system of the Lusaka Regional Health Care Control Team, a pilot project for improving community-based PHC services as well as activities for strengthening the referral system (introduction of an appropriate medical institution according to level and nature of the sickness or injury) and promoting school health were carried out in collaboration with a Japanese NGO (AMDA). The project purpose was to improve the PHC management system in Lusaka District in line with Zambia's health care reform policy and strategy.

In addition, as a water supply facility was constructed with grant aid, the promotion of safe water use and sanitation education was expected to bring about a synergy effect in improving health and hygiene. Accordingly, the pilot project for improving community-based PHC activities was implemented in George Compound. This pilot project involved a community organization in promoting proper use of safe water and improving the hygiene environment. It incorporated PHC activities with regard to child growth.

Figure 3-7 Goal and Activities of the Integrated Approach for Safe Water Use in George Compound, Lusaka





Public water taps in the George Compound (The Program for Improvement of Living Conditions in Zambia)

### c. George Community Empowerment Program (GCEP)

The purpose of this project was to improve the management of water supply services and its usage based on a partnership among the LCC, LWSC, and area-based organizations (ABO). Prior to the project, activities for building an operation and maintenance system was carried out in collaboration with the NGO as part of the aforementioned Water Supply Project. This project started three months before the completion of the grant aid project in succession of the activities. Specifically, with the aim of continuously operating and utilizing the water facilities constructed in the grant aid project under the partnership among LCC, LWSC and ABO, activities for strengthening related organizations and capacity building, as well as improving the management system for water supply services, were undertaken.

Planning of the project involved primarily LWSC, as well as LCC, consultants, and CARE, which took charge of activities in the scheme of the Community Empowerment Program. An approach to sanitation education was applied after it was coordinated with the above-mentioned PHC pilot project.

## 2) Impact on Poverty Reduction and Sustainability in the Water Supply Project (Impact and Sustainability)

As the construction of water supply facilities in the entire George Compound was completed, illegal connections to the old pipes decreased and the use of public water taps significantly increased. Most of the residents in the target communities have used the installed water taps as their main water source and have acknowledged the improved quality of the water. Consequently, it can be concluded that steady outcomes have emerged toward the improvement of safe water usage conditions. In terms of the overall goal of the program, namely, improvement of health and hygiene conditions, through enhanced understanding of adequate hygiene practices and utilization of water from a public tap, the program achieved some impact, as demonstrated by a decrease in the incidence of water-borne diseases. Specifically, awareness of sanitation has improved among residents as shown by

increased hand washing practices using soap, and many residents observed the decrease in the incidence of diarrhea and cholera. The incidence of cholera, especially, decreased drastically from 70 cases per 10,000 in 1994 to one case per 10,000 in 2000.

On the other hand, as far as sustainability of the water supply project is concerned, user fees covered the operation and maintenance expenses for water supply services, including labor costs, running costs for the facilities, and maintenance costs such as pipe repairs, and the independent financial management of the George Main Division of LWSC was maintained. The rate of user fee payment has been slowly rising since commencement of the GCEP in every service area. While it was 55% at the outset, it has stayed around 70% on average since 2001. A sustainable operation has become financially possible.

The service management is based on a partnership agreement between the George Main Division of LWSC and the George Water Committee, which represent the community. A collaboration relationship has been formed between the service provider and the community group. The George Main Division is responsible for customer services, including user registration and complaint procedures, as well as the financial and technical management of the entire scheme. On the other hand, the George Water Committee supervises tap leaders selected from the communities to take care of public taps in terms of opening and closing taps, and also promotes community enlightenment. Both parties hold discussions on issues in water usage and operation and maintenance of water supply services, if necessary.

## 4-4 Evaluation Results

Based on the above analysis by country, the evaluation results are summarized below from the standpoints of the sub-questions explained in 4-2 (1).

### 1) Sub-question a.

**What kinds of approaches are effective in efficiently and effectively providing sustainable and safe water supply for the poverty group in the Sub-Saharan Africa?**

If a project requires advanced skills that cannot be easily acquired at the local technical level, introduces a high maintenance facility that requires time and money, and proposes water management organizations that impose a large load on the community, sustainability cannot be secured. To begin with, water issues in the target area, structure of the poverty, and the relation between the community and water should be understood. It is important to discuss thoroughly with the community in advance what kind of water problems they have; what kind of water supply facility is needed to solve those problems; what kind of system is needed to operate



and maintain the facility; and what improvements should be expected from a water supply project so that a plan can be made in line with local situations and needs. Based on the cases in Zimbabwe and Zambia, it is believed that activities for organizing the community groups, such as community enlightenment, and technical guidance on operation and maintenance, are all indispensable to bring about a sustainable project.

In order to establish a sustainable water supply system using limited locally available resources among the poor in Africa, an integrated approach comprised of basic activities and input with a focus on the establishment of a water supply system should be effective. Such an integrated approach is expected to include the following activities.

- A preliminary study to identify not only engineering aspects but also software aspects such as the socioeconomic context, water problems, and the relation between water and poverty in the target communities
- Sensitization and planning workshops with community members to understand the community background and water problems, as well as to plan water supply projects suitable for the communities
- Formulation of plans that include facility construction, procurement, system for operation and maintenance, and water control organization by the community, which are agreed by residents
- Community enlightenment, capacity building, institutional strengthening, operation and maintenance skills training
- Construction of facilities and procurement of equipment necessary for operation and maintenance
- Monitoring and evaluation of the above activities and follow-up if necessary

The second to fourth activities listed above are expected to take much time. However, the community organizations based on their understanding and agreement will lead to better outcomes with small input in the context of project sustainability, and will contribute to project efficiency. The second, fourth, and sixth activities are considered effective in collaboration with NGOs and have great potential to be carried out by the partner government independently.

## 2) Sub-question b.

**What kinds of approaches, with the establishment of the water supply sector and sustainable management system as the entry point for community development, are effective in increasing not only the direct impact of safe water supply but also impacts that eventually leads to the achievement of overall goals, such as improvements in living conditions for the poverty group and poverty reduction?**

For resident-led community development, which started

with water supply as its entry point, to develop independent activities beyond the water sector and to expand impact, community awareness of problems, problem analysis, planning, fund raising, human resources development, and strengthening the community organizations are all essential. These activities are expected to enhance the capacity of self-governing of the community. In order to promote improved living conditions initiated by the community, it is important to define the central and local governments' responsibilities for community activities and support the community by providing technical information and training.

If each community activity is separately conducted, a synergy effect cannot be expected. It is more efficient to build a mechanism in which the activities of the poverty group in both urban and rural areas can influence each other effectively through opportunities for information exchange, the introduction of successful cases in other areas, or the presentation of role models to women's groups.

Poor urban areas are sometimes illegal settlements, to which the partner country's government has difficulty in rendering support. Therefore, establishment of a long-term support system, from enlightenment activities to organizational building in collaboration with local NGOs, is important if community development activities are to expand from water supply issues to improvement of living conditions and poverty alleviation in poor urban areas. In poor rural areas, the priority is to establish a sustainable water supply system by setting up an operation and maintenance system for the water supply facility in the community. This requires continuous support in community enlightenment and organization building. Achievement of a single goal can foster confidence, trust, and initiative in the community and therefore it builds unity in the community development.

## 3) Sub-question c.

**What social and economic conditions are required from the government of a partner country and community for an integrated approach to be effective for the poverty group in African countries?**

If the planning and implementing unit of development projects is devolved to the local administration from the central administration under the decentralization policy, it may be effective to conduct integrated approaches with local governments as the implementing unit. It is desirable to start the integrated approach with the local governments who have already have experiences in human development and organization strengthening with the support of international organizations and donors and who have the basis of financial and human resources capable of coordinating activities in respective sectors.

Integrated approaches can be introduced to those communities that have traditional leaders who are respected and

trusted by the community and where a certain consensus building mechanism is established based on some community organizations interested in solving issues in regional development. In other words, it is important to have a unity of community and the presence of human resources who can lead various activities by means of an integrated approach.

Development activities can be disturbed by the interference of politicians who cause inequitable distribution of benefits to certain groups in the community and induce confrontation and trouble within the community. On the other hand, local politicians can act as a bridge between the community and the administration to promote development projects. It is therefore necessary to recognize politicians as a part of social capital in the community and formulate a program where politicians can demonstrate their leadership in community development.

Based on the above, it can be concluded that the integrated approach of the water sector that combines hardware and software activities is effective in implementing projects for sustainable safe water supply that targets the poverty group. Compared to engineering-oriented projects that only support facility construction and procurement of equipment and materials, projects that integrate software activities such as operation and maintenance, community enlightenment, organizational building, and sanitation education allow for positive participation of the community and improvement of ownership, thus increasing project sustainability and impact.

## 4-5 Lessons Learned

To implement an integrated sector approach more appropriately, the following strategies are important at all stages of the project, including planning, implementation, and follow-up: (1) understanding water-related problems and poverty structure in the target communities; (2) establishing an operation and maintenance system constituting the community

organizations as the core; (3) strengthening the supporting system that involves the central and local governments or NGOs. In short, there are two important issues for future development projects in the water supply sector. First of all, preliminary studies and the planning stage should be expanded and improved. Second, it is desirable to expand and reinforce the capacity building regarding the community planning and implementation capacity and the support system of central and local governments.

Using the integrated approach that combines capacity building for both beneficiary and government sides with construction of water supply facilities and establishment of an operation and maintenance system through community participation, the community can actually feel the benefits. By nurturing beneficiaries' confidence, trust, and a sense of responsibility, developing a sustainable development system in the water supply sector is considered the first step toward solving "water and poverty in Africa." In the integrated approach in the water supply sector, it is also important to reduce the incidence of infectious diseases borne by water, which is another development issue surrounding water; improve nutrition, living environments, and maternal and child health; and improve the entire community health situation by enhancing community enlightenment and sanitation education.

When community organizations and the government's community support system are formed through water sector development, an integrated approach addressing basic human needs, such as primary education, health, sanitation, and income generation, can enhance the community's willingness and initiative towards community development with synergy effects among different activities. It is expected that continuous implementation of community-based activities will generate an effective and sustainable impact on poverty reduction, and that Japan's cooperation will further contribute to addressing issues of water and poverty in Africa.

## Chapter 5 Environment—Environmental Center Approach: Development of Social Capacity for Environmental Management in Developing Countries and Japan's Environmental Cooperation

### 5-1 Outline of Evaluation Study

#### (1) Background and Objectives

At the World Summit on Sustainable Development (WSSD) in Johannesburg, which took place in late August and early September, 2002, the Japanese government announced the Environmental Conservation Initiative for Sustainable Development (EcoISD), an advanced plan of Initiatives for Sustainable Development toward the 21st century (ISD) proposed in 1997. In this plan, Japan, presenting a new policy emphasizing the importance of partnerships with developing countries, as well as principles of ownership that Japan had pursued for a long time, defined capacity development in the environment in the first of several basic policies. Specifically, under the Koizumi Initiative (the concrete actions to be taken by the Japanese government for sustainable development throughout the world, which was announced by Prime Minister Koizumi), Japan gave first priority to human resource development for sustainable development, raised the amount of aid in education to more than 250 billion yen over five years, and supported human resource development for 5,000 experts in the environmental sector.

However, Japan has been trimming the amount of ODA for the past few years because of its severe fiscal situation and lost its position as the No. 1 ODA donor in 2001. In the meantime, Japan's foreign direct investment has been growing steadily and has become approximately five times larger, overtaking ODA in 1992. Furthermore, the role of Civil Society Organizations (CSOs), such as NGOs and NPOs, has expanded dramatically in the fields of development assistance and environmental protection in developing countries. When thinking of sustainable development in developing countries as stated above, it is more important than ever for both the private (firms and citizens) and the public sectors to take their own share of responsibility and cooperate with each other.

Although the portion of total ODA dedicated to the environment is increasing, it is time to consider the approach for effective and efficient international cooperation, including development support from other official funds (OOF), sources other than ODA and other cooperation based on private funds in these circumstances of environmental cooperation.

The Environmental Center approach, which has been

implemented since 1990, mainly consists of grants and technical cooperation for the establishment of a center. The center has (1) a research function for monitoring skills in air and water pollution, along with environmental research, and (2) a training function for environmental experts with technical cooperation from Japan. Hence it may be said that the Environmental Center approach is a characteristic feature of Japan's environmental cooperation.

This report presents a proposal for how JICA's effective and efficient environmental cooperation should be conducted based on the concept of development of social capacity for environmental management (SCEM) as the framework for program evaluation. This study also analyzed how Environmental Center projects have contributed to the partner countries' social capacity development, while conducting evaluations of related cooperation projects and policy systems as required.

#### (2) Evaluation Study Period and Team

##### 1) Evaluation Study Period

May 2002 to March 2003

##### 2) Evaluation Study Team

Under an official contract between JICA and the Japan Society for International Development (JASID), this evaluation was conducted by the Evaluation Team on Environmental Cooperation in JASID. A task force established for this evaluation study in JICA took part and exchanged opinions.

#### (3) Projects subject to the Study

The evaluation of the Environmental Center approach in this report is a program evaluation of Environmental Center projects. The evaluation analyzed the outcomes of the Environmental Centers (one of Japan's representative environmental cooperation) from various perspectives using evaluation framework for development of SCEM in developing countries. In this report, the evaluation was conducted on projects in four (China, Thailand, Indonesia and Mexico) of the six countries where Environmental Center projects had been implemented, taking into consideration the duration of each project and the characteristics of each Environmental Center (Table 3-24).

**Table 3-24** Outline of the Environmental Center Projects

	Sino-Japan Friendship Center for Environmental Protection, China	Environmental Research and Training Center (ERTC), Thailand	Environmental Management Center (EMC), Indonesia	National Center for Environmental Research and Training (CENTCA), Mexico
Agreement of grant aid	1992.6	1989.7	1991.12	—
Project duration	Phase 1: 1992.9-1996.8 Phase 2: 1996.2-2001.1 Phase 3: 2002.4-2006.3	Phase 1: 1990. 1-1995. 3 Extension: 1995. 4-1997. 3	Phase 1: 1993. 1-1997.12 Follow up: 1998. 1-2000. 3	Phase 1: 1995.7-1997.6 Phase 2:1997.7-2000.6 Follow up: 2000.7-2002.6
Project purposes	Collection and analysis of monitoring data, research of the pollution control technology, development of human resources for environmental protection	Environmental research, training, improvement of monitoring activities (contribution to improvement of environmental quality)	To develop a capacity for environmental management and improve environmental quality through environmental research, monitoring, information system, and training	To develop a method of pollution control and environmental management (improvement of the capacity for environmental administration)
Environmental issues targeted in the project	Cooperation in general environmental issues addressed by SEPA • Environmental monitoring • Development of the pollution control technology • Improvement at the environmental information network • Research on environmental strategic policy • Environmental education and enlightenment activity	• Water pollution • Air pollution • Noise and vibration • Solid waste • Hazardous substances	• Water pollution • Air pollution • Hazardous substances	• Air pollution • Hazardous substances
Project type	Grant aid, technical cooperation	Grant aid, technical cooperation	Grant aid, technical cooperation	Technical cooperation

## 5-2 Development Stages of SCEM in Developing Countries

### (1) SCEM and SEMS

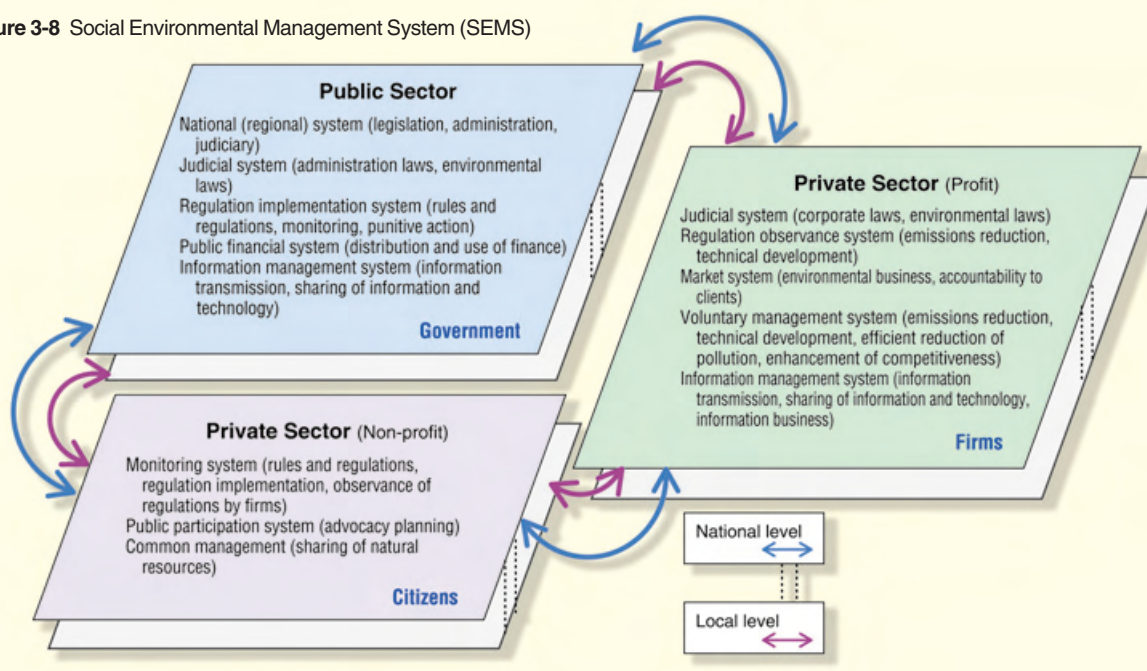
Social capacity for environmental management (SCEM) indicates the overall capacity that addresses environmental management by governments, firms, and citizens. This capacity is defined as the social environmental management system (SEMS) on the basis of a systematic and institutional argument (Figure 3-8). SEMS has three main actors for environ-

mental management, namely, governments, firms, and citizens, and the system works according to the actions of these three actors in environmental management as well as interactions among them. As for SEMS, the relationship between the two levels in the country, central (national) and local, should be considered, too.

### (2) Development Stages and Benchmarks of the SEMS

There are three stages in the development process of SEMS: system-making, system-working, and self-manage-

**Figure 3-8** Social Environmental Management System (SEMS)



ment. Fundamental functions of SEMS are developed in the system-making stage. Since this stage particularly requires capacity development in the government sector, benchmarks should be the development of (1) environmental laws (basic laws and specific regulations), (2) environmental administration, and (3) environmental information system (establishment of monitoring networks, and collection, use and disclosure of data). The system-making stage enters its final phase when an environmental administrative organization is established following the enactment of environment laws. Going through the final adjustment, such as the development of environmental information system, toward the execution of the environmental policy, the system shifts to the system-working stage.

In the system-working stage, the system makes a full-fledged start of the execution of pollution reduction followed by development of the environmental administration, which should be fundamental in the system. In this stage, the tendency of pollution changes from increasing to decreasing and a turning point in the environmental Kuznets curve (EKC) should be observed. When such a turning point is observed, the stage is assumed to be fully open.

The self-management stage is the stage where the system develops on its own through stronger interrelationships among the government, firms, and citizens, and comprehensive environmental management is enforced. In particular, firms and citizens take the initiative in environmental management through voluntary efforts. For example, firms make efforts to obtain ISO14001 certificates as a part of internal environmental management and begin to implement more efficient environmental and business management, thus making the most of environmental accounting. Firms appeal to society with these achievements and gain a competitive edge in the market as consumers appreciate their efforts. From the aspect of international cooperation, a developing country should become more independent from the donor country's assistance and utilize its own financial resources at the beginning of this self-management stage.

The roles and the relationships among the three actors also change along with the development process of the stages. While the government shoulders the biggest role in the system-making and system-working stages, it is responsible for creating a framework for comprehensive environmental management and supporting the other actors in the self-management stage. The Chinese case of the development process of SCEM is shown in Figure 3-9. Regarding the evaluation indicators of SCEM, on the basis of the Human Development Index of the United Nations Development Programme (UNDP), evaluation indicators for air quality management capability of the World Health Organization (WHO) and the United Nations Environment Programme (UNEP), and the evaluation theory in capacity development in the environ-

ment (CDE) promoted by OECD, the evaluation analysis in this report focuses on the benchmark indicators in the development stages, assuming a bundle of evaluation indicators as shown in Figure 3-10.

## 5-3 Environmental Center Approach and Development of SCEM

### (1) Entry Point and Exit Point of Environmental Center Projects

In terms of development of SCEM in developing countries, it is important to identify what environmental cooperation should mean, and when it should be implemented most effectively. In this respect, this report examines suitable entry and exit points for Environmental Center projects.

Suitable entry and exit points in the development stages of the SEMS and Environmental Center projects are shown in Figure 3-11. When Environmental Center projects, whose key activities are monitoring, researching, and training, are started in the final phase of the system-making stage where environmental law and administration are already established, the most effective results for the formation of SCEM for the partner country will occur. In short, the final phase of the system-making stage is the most suitable entry point for Environmental Center projects.

On the other hand, the switch to a decrease in pollution in the system-working stage means that the partner country's social system has established the capacity to reduce conventional industrial pollution, such as sulfur oxide (SO<sub>x</sub>). Thus, the Environmental Center faces a new task after having attained one of its original purposes, and the time to address self-sustaining development begins. Also, the cooperative relationship shifts to one that is well balanced, with and without ODA, from one where ODA plays a large role; in other words, from vertical to horizontal cooperation. Therefore, it is desirable for Environmental Centers to reach the exit point of projects when the stage spreads out fully, after it passes through the turning point of pollution reduction in the system-working stage.

From the point of view stated above, the contribution of Environmental Center projects to development of SCEM in the four countries is evaluated below. The development process of the SEMS and the input timing of Environmental Center projects in the four countries are shown in Figure 3-12.

### (2) China

Both environmental laws and administrations were satisfactorily established in the 1990s, and the China Environment Yearbook, which is equivalent to China's State of the Environment, has been issued annually since 1990, with an upgrade in quality since 1994. This proves that the system-making stage in China was completed in the mid-1990s,

meaning that the first half of the 1990s dovetails with the final phase of the stage. With Air Pollution Control Act Amendments enacted in 1995 and the Ninth Five Year Plan started in 1996, China implemented effective countermeasures, and entered the system-working stage in the latter half of the 1990s. Since SO<sub>2</sub> emissions from industry in China reached their peak in 1996, there is a possibility that China reached the turning point toward pollution decrease in the latter half of the 1990s. The development process of social capacity, which appears to be extensive in China as stated above,

implies that the government, firms, and citizens, acting as a single body, appear to be actively promoting environmental management prior to the Beijing Olympic Games, which are to be held in 2008, and the Shanghai International Exposition, which is to be held in 2010, and the country seems to have started changing over to the self-management stage from the system-working stage.

Figure 3-12 indicates that the Sino-Japan Friendship Center for Environmental Protection Project in China started in 1992 (an agreement for a grant aid was reached and project-

Figure 3-9 The Development Process of SEMS in China

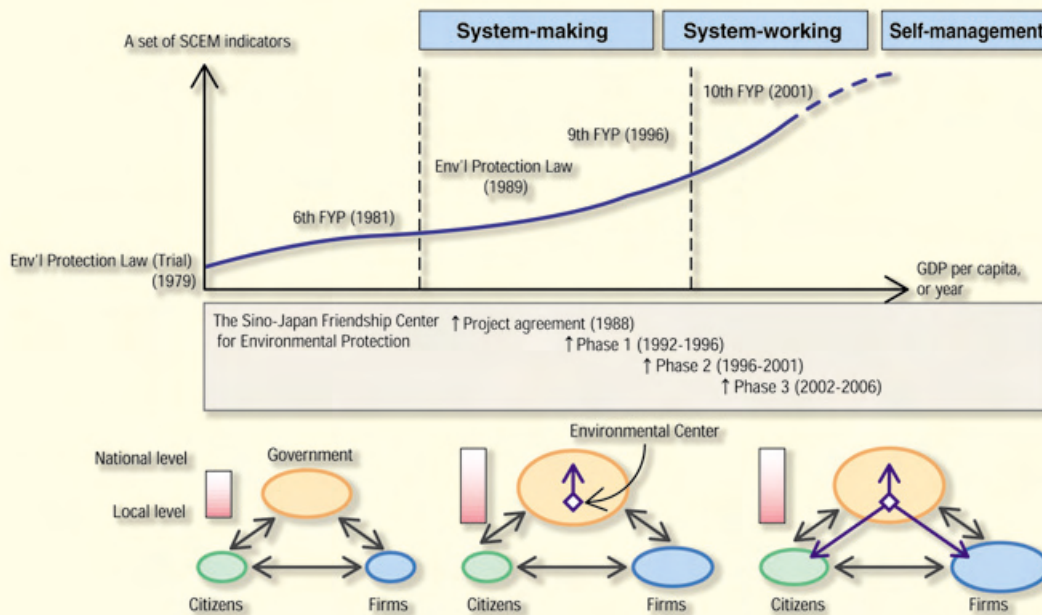
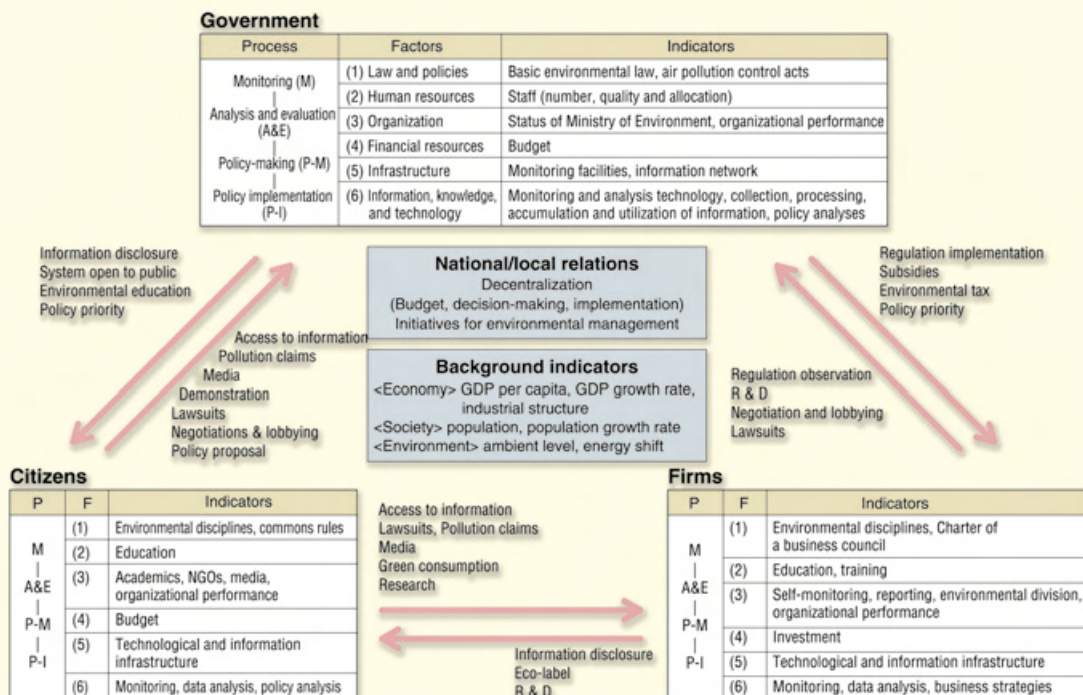


Figure 3-10 SCEM Indicators



type technical cooperation started), which was the final phase of the system-making stage, and the project was initiated at a suitable entry point. Furthermore, full-scale technical cooperation and activities in the center were started in 1996 as the second phase of the project. With project input having been given at the right time for a significant contribution to the system, the Sino-Japan Center has been developing along with the development of the SEMS in China.

In the meantime, China experienced the system-working stage during the latter half of the 1990s and is gradually shifting to the self-management stage, which started in the early 2000s, and the Sino-Japan Center project entered the third

phase in 2002 (scheduled to be completed in 2006). Although the Sino-Japan Center might not need further assistance from Japan, considering the exit point of the project on the basis of the original concept of Environmental Center projects, it is relevant for Japan to continue supporting the Environmental Centers if they find a new target or need for their activities, as in the case of the Sino-Japan Center, in terms of strengthening the relationship between both countries’ governments, firms, and citizens.

### (3) Thailand

In Thailand, environmental law, administration, and infor-

Figure 3-11 Entry/Exit Points of Environmental Center Projects

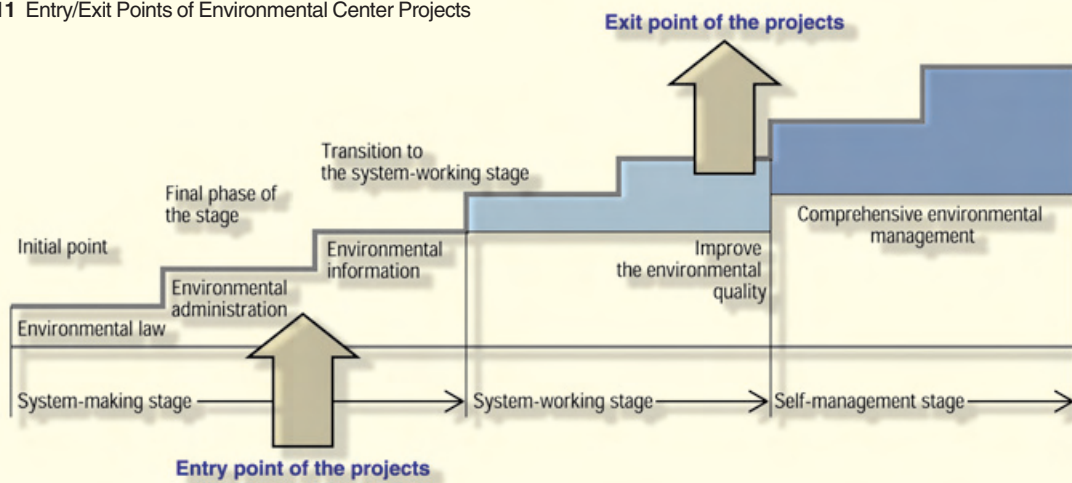
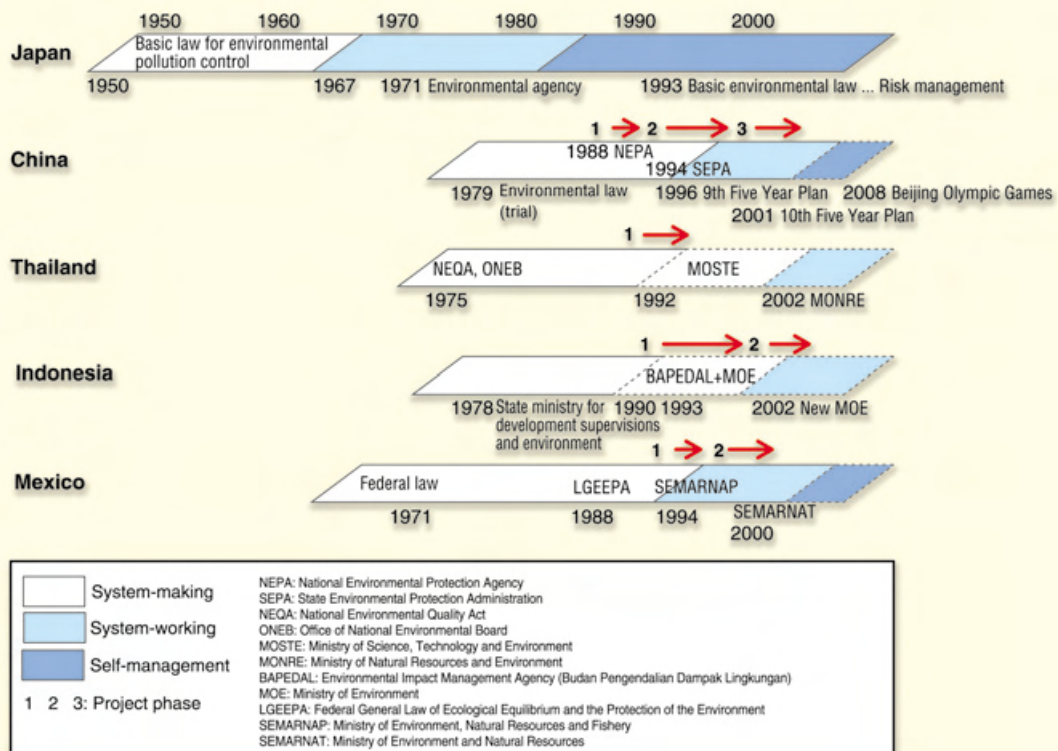


Figure 3-12 Development Stages of SEMS and Environmental Center Projects



mation are mostly in place, and the country shifted to the system-working stage from the system-making stage in the mid 1990s. However, it has taken considerable time to set up the system-working stage in the SEMS because of social and economic problems caused by the currency crisis of 1997. Furthermore, in Thailand, a period of reorganization of the governmental system and the early phase of the system-working stage have coincided due to the reformation of the former Ministry of Science, Technology and Environment (MOSTE) into the present Ministry of Natural Resources and Environment (MONRE) after the establishment of the new Constitution in 1997, the enforcement of the Decentralization Plan and Process Act in 1999, and the restructuring of the ministries in October 2002.

Figure 3-12 shows that the Environmental Research and Training Center (ERTC) projects started at the end of the 1980s (grant aid in 1989 and project-type technical cooperation in 1990), which was the final phase of the system-making stage, and ERTC projects appear to have been implemented prior to the transitional period to the system-working stage. The Thai administration and economy began a restructuring period after the completion of cooperation in 1997 and it was impossible to predict these conditions in the latter half of the 1980s. So, the entry point of the Environmental Center project in Thailand was appropriate considering the situation at that time. Furthermore, although the ERTC projects ended in 1997, the input of the project should have been continued a little longer to be more rational, considering that the system was at the beginning of the system-working stage and far from fully operational.

#### **(4) Indonesia**

Environmental law and administration in Indonesia were established in the late 1980s and early 1990s. Nevertheless, Indonesia is behind in terms of development of its environmental information; in other words, a nationwide monitoring network is not established, and periodical dissemination of the state of the environment is not being performed, either. Under these conditions, the country appears to have been at a standstill in the final phase of the system-making stage since the beginning of the 1990s. Furthermore, Indonesia went through social and economic instability due to the change of the Suharto administration along with the currency crisis in 1997, the independence movement of Timor-Leste, the restructuring of the central ministries that accompanied the establishment of the new Ministry of the Environment (January 2002) out of the former State Ministry of Environment and BAPEDAL (Environmental Impact Management Agency), and the enactment of the Decentralization Act (2001). Under unstable administrative conditions like these, Indonesia may remain in the final phase of the system-making stage.

The analysis of the development process of the SEMS in Indonesia leads to the conclusion that the timing of the start of project input of the Indonesia Environmental Management Center (EMC) in the beginning of the 1990s and also in the final phase of the system-making stage (an agreement for the grant aid in 1991, and the timing of the start of project-type technical cooperation in 1993) was appropriate. On the other hand, regarding the accomplishment of the project, remarks are often made that the EMC still has a long way to go before it becomes self-sustaining and the project can be continued. Focusing on development of the SEMS, it is analyzed as follows. Indonesia's own particular conditions led to the necessity of a much longer timeframe in years for the final phase of the system-making stage due to external factors and other problems, and in consideration of concrete needs, such as preparation of an environmental information system and the development of environmental experts, it is relevant to continue the input of aid funds into the EMC project indefinitely. The second phase of the EMC project, whose purpose is to support the decentralized environment management system, started in July 2002. Although the project design, including the method for connecting it to environmental policy and the definition of the scope, is controversial, it is expected to contribute to future development of SCEM in Indonesia.

#### **(5) Mexico**

In Mexico environmental law and administration was developed between the latter 1980s and the mid-1990s, and Ministry of the Environment, Natural Resources and Fishery (SEMARNAP) was established in 1994. Environmental information system was also established and introduced to the public around the same time. The development of the SEMS in Mexico was completed in the mid-1990s. It is now shifting from the system-working stage to the self-management stage. However, for Mexico City there was a turning point in terms of SO<sub>2</sub> emissions in 1992 and 1993, and according to this data, the system-working stage already started in the first half of the 1990s. Moreover, the Action Plan for Air Pollution Control (1988) and the Integral Program for Air Pollution Control (PICCA, 1990) were implemented. Based on these facts and countermeasures, it can be said that the system had already entered the system-working stage and was also in the final phase of the system-making stage simultaneously in the late 1980s. The analysis stated above suggests that the start of the National Center for Environmental Research and Training of Mexico (CENICA) in 1995 came a little too late to contribute significantly to Mexico's development of SCEM.

The project ended in June 2002, after a follow-up period of two years. When it is seen from the viewpoint of the development of the SCEM, the CENICA project started from the early phase of the system-working stage, and the project input could have been terminated before 2002, because Mexico had



the technology for environmental management and policy study at an adequate level. Unlike China, whose Environmental Center has renewed and furthered the scope of its functions in the midst of its course of operation, CENICA does not seem to have a clear and new target to achieve. CENICA should have been given an opportunity to search for a new approach to development of the Environmental Center at an earlier stage of consideration of the development of its SEMS. Therefore, it was possible for Japan to offer different assistance than the prior Environmental Center project.

## 5-4 Development of Environmental Center Approach and Environmental Cooperation in the Future: Lessons and Recommendations

Recommendations in this report are categorized into two levels. The first level is for organizations more or less directly concerned with the Environmental Center projects or other environmental cooperation, including JICA. Recommendations suggest how to make a supportive Environmental Center that contributes to the development of SCEM in developing countries, and what an ideal partnership of environmental cooperation between developing countries and Japan as well as among developing countries through the Environmental Center approach should be [see (1) (2) and (3)]. The second level is for stakeholders at a higher level or in a broader area from the perspective of development of SCEM in developing countries and improving Japan's international environmental cooperation. This level comprises three suggestions: development of comprehensive assistance in the environmental and other sectors; environmental cooperation in the global economy; and a developed system for providing assistance and environmental cooperation with significant impact [see (4)].

### (1) Environmental Center Projects in Development of SCEM

#### 1) Administrative Status of the Environmental Centers

In order to contribute more to the development of environmental monitoring, research, and training, it is important to provide a relevant administrative status to the Environmental Center so that it is able to impact more significantly on environmental policy-making. To achieve this, it is important to identify which specific authority in the environmental administration the Environmental Center belongs to during the development and implementation of the project. Moreover, it is also important to build a mechanism in which the Environmental Center can implement activities extensively without being influenced by the authority of other organizations in order for it to perform effectively in the environmental administration system.

When considering the Environmental Center's contribution to the development of SCEM in the long term, it is more important to set up a wide scope of functions or a wide support system in the project. The support system should be flexible so that the cooperation approach can be altered to improve its effectiveness according to the development of the Environmental Center, expand the range of cooperation, or shift focus to policy study even in the middle of the project.

#### 2) Entry Point and Exit Point of the Environmental Center Projects

As mentioned earlier, the final phase of the system-making stage, in which the fundamental features of the SEMS, such as environmental law and administration are well prepared, is an optimum entry point (a project starting time) for the Environmental Center projects. Furthermore, the time when the turning point toward a decrease in pollution appears in the system-working stage, showing that the stage is fully functioning, is the preferable exit point to impel the Environmental Center into becoming self-sustaining. At that time, the project should shift emphasis to a horizontal cooperation type of partnership. Based on this viewpoint, examining whether the counterpart country is at the appropriate stage of the planning process for the Environmental Center project implementation and setting up necessary cooperation items in advance are key procedures. Finally, taking advantage of the entry and exit points, Japan should not disrupt its relationship with the Environmental Center after the exit point nor stick to the Environmental Center as the sole cooperation approach but should instead continue flexible cooperation according to the development of the SEMS.

### (2) Future Perspectives of the Environmental Centers

#### 1) The Environmental Centers and the Capacity Development for Environmental Management in Firms, Citizens and the Local Actors

In order to make a further contribution to the development of SCEM of the partner countries, the Environmental Center should strengthen ties with firms and citizens and make a greater impact on these primary actors of the system. At the same time, assistance to local actors to increase their capacity for environmental management is indispensable in the process of local decentralization in developing countries, which is anticipated to accelerate.

#### 2) Further Qualitative Improvement of the Environmental Centers

As mentioned above, it is imperative for the Environmental Centers to improve the capacity of their staff members for the development of SCEM. Although important research has been done in the Environmental Centers, the number of doctoral degree holders is not sufficient; 16 in China (about 20% of the total number of researchers in the

Center), five in Thailand (about 10%), and none in Indonesia. They do not need to match the situation in developed countries (about 90% of researchers at Japan's National Institute of Environmental Studies are doctoral degree holders), but in order to become a leading research center for environmental studies in and outside of the country, at least one third to one half of the researchers should hold doctoral degrees, and efforts to increase the number of research workers who have degrees are necessary.

### **(3) Further Impact of the Environmental Centers: Building Partnerships**

#### **1) Partnership between Japan and Developing Countries**

It is important for Japan to make the most of, both tangible and intangible assets in Environmental Centers, to build a relationship of mutual trust with developing countries, and to develop partnerships in different levels of the government, firms, citizens, and local actors. This will lead to the creation of social capital. Through exchange activities like this, the relationships between Japan and partner countries can blossom into horizontal forms of cooperation, where both sides follow a give-and-take system with interest and concern for each other, separate from the vertical cooperation influenced by ODA.

#### **2) Partnership among the Environmental Centers**

In terms of future capacity improvement of the Environmental Centers or development of the new Centers, it is very useful to exchange experiences and undertake collaborative research among Environmental Centers. For instance, the China and Indonesia Environmental Centers have participated in the Acid Deposition Monitoring Network in East Asia (EANET). Thai Center is expected to join them. Furthermore, there is a hope that each Center will start South-South cooperation with neighboring countries as regional centers.

### **(4) Further Environmental Cooperation in the Future by Japan: Recommendations from a Broader Point of View**

#### **1) Development of Assistance Programs and Assistance Coordination**

When Japan pursues ideal environmental cooperation in the future, programmed assistance for the purpose of developing the capacity of the entire sector of the environment—namely, development of SCEM, is fundamental. In the assistance programs for the environment in partner countries such as China, Thailand, Indonesia, and others, there is insufficient coordination between the program for brown issues (air and water pollution) and green issues (forest preservation and diversity preservation). Commitment to structuring a link between the problem-solving project and the system-devel-

oping program is not strong enough either. Environmental cooperation policies should be clarified, with a linkage of brown and green environmental issues, such as countermeasures for pollution and forest preservation, as well as global environmental issues, such as global warming, desertification, and the decrease in bio-diversity, within the larger movement for development of SCEM in countries of interest. Moreover, a cooperative relationship at the program level will be also fundamental, such as cooperation to counter the vicious cycle of poverty and environment degradation, which have not always been linked.

#### **2) Globalization of Economy and Environmental Cooperation**

More free trade agreements (FTA) are being concluded bilaterally and multilaterally, and there is active free trade among WTO (World Trade Organization) member economies in line with globalization of economies and environmental cooperation. In future free trade agreement negotiations, Japan should call for a many-sided cooperative agreement, including not only mutual cooperation between economies, but also environmental preservation, following NAFTA's (North American Free Trade Agreement) leadership. In terms of implementing future environmental cooperation, Japan should give full attention to this trend toward economic agreements.

#### **3) Establishment of an Aid Supply System and the Impact of Environmental Cooperation**

In order to implement the new policy of environmental cooperation stated above, drastic reform of Japan's aid supply system is required.

Japan has usually depended on central ministries, including the Ministry of the Environment, and local public bodies for technical expertise and experts required for cooperation programs. However, as a consequence of recent progressive administrative and fiscal reform, the Ministry of the Environment is finding it difficult to send new staff members to these programs. Moreover, the ministry does not seem to have sufficient expertise or knowledge regarding international cooperation. The local public bodies are operating under the same conditions.

When it comes to thinking of future development of SCEM, it is imperative to make the most of expertise from firms and citizens, and to search widely for and foster human resources, because there is a shortage in staff and knowledge in the central and local governments. In preparation, the administration, firms, and NGOs should jointly contemplate how to foster advanced experts and re-educate people who have a certain level of experience in graduate schools focusing on international cooperation and the environment, and academic societies such as JASID should also be involved in these efforts.

# Chapter 6 NGO-JICA Collaboration Programs

## 6-1 Outline of Evaluation

### (1) Background and Objectives

Recently JICA has been actively involved in partnership with NGOs for implementing cooperation that directly reaches communities in developing countries and promoting citizens' participation in ODA. The NGO-JICA Evaluation Subcommittee, which consists of staff members of NGOs and JICA, started in 2001 as a subcommittee of the NGO-JICA Council established in 1998 to promote collaboration between NGOs and JICA. The purpose is to share information and knowledge to promote mutual learning through project evaluation, and to draw lessons and recommendations for more effective planning, implementation, and evaluation of projects conducted for NGOs and JICA.

In fiscal 2003, the subcommittee proposed an evaluation method of grassroots cooperation (hereinafter referred to as grassroots type projects) directly delivered to the community. Among the NGO-JICA Collaboration Programs (hereafter NGO Collaboration Programs), JICA Partnership Programs implemented in the past were analyzed and evaluated in a cross-sectoral manner. Especially for the purpose of formulating an evaluation method of grassroots type projects, a thematic evaluation in NGO Collaboration Programs was conducted.

### (2) Evaluation Period and Team

The members of the NGO-JICA Evaluation

Subcommittee (Table 3-25) determined the evaluation policy, implemented the study, and wrote a report from June 2003 to May 2004. The consultant from the Global Link Management joined in wiring the report and conducting field surveys.

### (3) Projects Subject to the Study

This evaluation study targeted nine projects among 13 JICA Partnership Programs that terminated in fiscal 2003 (Table 3-26). The nine projects were selected based on certain criteria: (1) projects implemented by NGOs (excluding universities and local governments)\*, (2) projects that target community (excluding research projects).

## 6-2 Framework of the Study

### (1) Viewpoints in Evaluation

- To analyze and classify the targeted NGO Collaboration Programs in order to recognize the diversity of grassroots type projects
- To focus on the analysis on JICA Partnership Programs, which is one cooperation scheme of the NGO Collaboration Programs\*\* and draw important points for the evaluation in order to propose an evaluation method for grassroots type projects.

### (2) Procedures of Evaluation

In the evaluation study, the NGO-JICA Evaluation Subcommittee examined the projects based on the findings

Table 3-25 Member List of the NGO Evaluation Subcommittee\*1

NGO side		JICA side	
Makoto Nagahata	Japan NGO Center for International Cooperation	Satoko Miwa	Office of Evaluation, Planning and Coordination Department
		Kazuaki Sato	Office of Evaluation, Planning and Coordination Department (from December 2003)
Nobuaki Wada	SOMNEED Sangham	Kaoru Suzuki	Office of Evaluation and Post Project Monitoring, Planning and Evaluation Department**2 (until December 2003)
Toyokazu Nakata	Institute of Participatory Development		Ayumu Ohshima
Miyuki Aoki	Services for the Health in Asian & African Regions (SHARE)	Mariko Homma	Office of Evaluation, Planning and Coordination Department (from December 2003)
		Yosuke Tamabayashi	Administration Team, Regional Department I (Southeast Asia)
Hiroshi Tanaka	The Institute for Himalayan Conservation	Yukiharu Kobayashi	Office of Citizen Participation, Training Affairs and Citizen Participation Department
Koichiro Watanabe	Save the Children (until August 2003)	Sayako Tokuda	Domestic Partnership Promotion Division, Domestic Partnership and Training Department**3 (until October 2004)
		Mahomi Masuoka	Office of Citizen Participation, Training Affairs and Citizen Participation Department

\*1 Members who were involved in this evaluation.

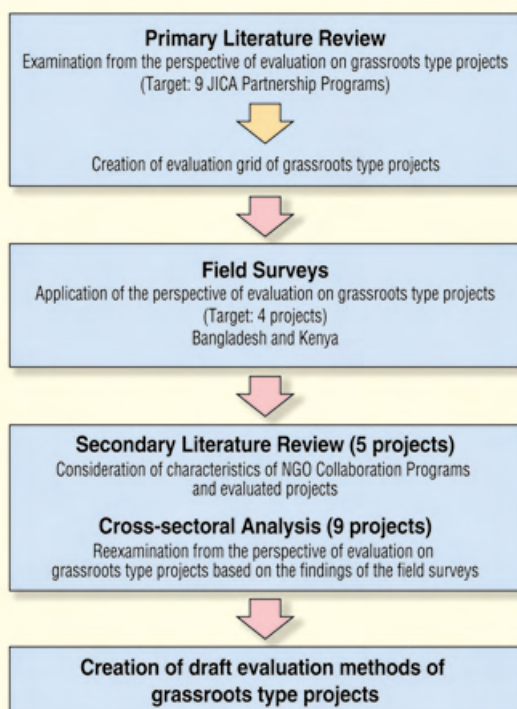
\*2 Reorganized into Office of Evaluation, Planning and Coordination Department in April 2004.

\*3 Reorganized into Office of Citizen Participation, Training Affairs and Citizen Participation Department in April 2004.

\* Among the evaluated projects, only the Improvement of Living Conditions for the Poor in Kenya was implemented by a consulting company in cooperation with a local implementing organization, which is a local NGO called Save the Children Center (SCC).

\*\*As projects that directly benefit grassroots concerns, there are some cooperation schemes including Technical Cooperation Projects other than NGO Collaboration Programs. This evaluation study pinpointed the projects that directly benefit grassroots concerns through collaboration with NGOs. It should be noted that not all the NGO Collaboration Programs directly implement the projects at the grassroots level.

**Figure 3-13** Procedures of Evaluation



of literature review and field surveys in two countries as shown in Figure 3-13. The characteristics and diversity of NGO Collaboration Programs were considered in the evaluation study.

## 6-3 Characteristics of NGO-JICA Collaboration Program (Grassroots Type Projects)

### (1) Characteristics of NGO Collaboration Program

Based on the results of study and research that had been

**Table 3-26** Projects Subject to the Study

	Project Title	Implementing Body	Cooperation Period
1	Secure Water Supply Project in the Dry Zone Area in Myanmar	Bridge Asia Japan	2000.7-2003.7
2	Improved Access to Primary Education in Rural Areas through Community Participation Project in Cambodia	Shanti Volunteer Association	2000.1-2003.9
3	Negros Original Sericulture Project in the Philippines	OISCA	2000.12-2003.12
4	The Project for Integrated Agricultural and Animal Husbandry Development for Sustainable Environment Protection in Jordan	Nippon International Cooperation for Community Development	2001.4-2004.3
5	Wheel Chair Production Project at National Rehabilitation Center in Laos	Association for Aid and Relief, Japan	2000.12-2003.12
<b>Projects evaluated with field surveys</b>			
6	Participatory Rural Development Project through Empowerment of the Poor in Bangladesh	Shapla Neer	2001.8-2004.8
7	Community-operated Reproductive Health Project in Bangladesh	Japanese Organization for International Cooperation in Family Planning	2001.4-2004.3
8	Integrated Rural Development in Kenya	The Institute of Cultural Affairs	2001.4-2004.3
9	Improvement of Living Conditions for the Poor in Kenya	International Development Associates, Ltd.	2001.4-2004.5

\*This classification was made from JICA Partnership Programs subject to this evaluation study and does not reflect the characteristics of all NGOs.

implemented since 2001 when the evaluation subcommittee was established, this study summarized the NGO Collaboration Programs into the following three characteristics.

- While importance is placed on the network (communication) with communities, the consistency with the policies of both the governments of Japan and that of the partner country, and the development plans and policies of the target areas are secured.
- Aiming to achieve the outcomes within a fixed period of time, flexible project operation is respected, and at the same time, the learning effects on both the community and the project implementing organization are deemed important during the project implementation.
- Ingenuity is exercised based on the cooperation of past activities in the partner country and experiences in the target sector.

### (2) Summary of the Diversity and Evaluation Perspectives in NGO-JICA Collaboration Program (Classification\*)

Based on the characteristics mentioned above, the characteristics of the evaluated projects were classified and summarized. The targeted projects were classified from four viewpoints: (a) project implementation style, (b) cooperation scheme, (c) cooperation contents, and (d) project evolution after termination (Table 3-27). These characteristics will be referred to when considering evaluation perspectives in the next section.

## 6-4 Perspectives Required for Evaluation of Grassroots Type Projects

As analyzed in the previous section, grassroots type projects have some similar characteristics. Therefore a flexible evaluation method highlighting these characteristics is neces-

sary. This section summarizes the evaluation criteria and perspectives for evaluating projects that directly benefit grassroots concerns. The summarizing work is conducted according to the framework of evaluation provided in the revised JICA Guideline for Project Evaluation, which is referred to in the evaluation of JICA projects in general. Therefore, these evaluation criteria and perspectives are also applicable to evaluation of general technical cooperation projects; however, the perspectives that are especially important in conducting evaluation based on the characteristics of grassroots type projects are included.

## (1) Understanding Current Condition of Project and Examination

### 1) Assessment of Performance

- Were inputs made as planned? (Comparison with the plan)
- Did the inputs flexibly meet the needs of beneficiaries?
- Were outputs generated as planned?
- Is the project purpose going to be achieved? (Comparison with the target)
- Are changes in the circumstances of beneficiaries observed as a result of the project implementation?

As mentioned in the previous section, many of the grassroots type projects are characterized by projects close to the livelihoods of local residents in line with their needs, and focus on the learning effects during the implementation process. Therefore, activities to change awareness and living situations of the community and encourage behavior transformation are at the heart of those projects. As shown in Case 1 (Box 17) below, it was revealed that confirmation of how

beneficiaries changed due to the project makes it easy to measure the attainment of the purpose and goal in the implementation of a grassroots type project.

### 2) Confirmation of Implementation Process

- Were the activities implemented as planned? (Reasons for changes in the plan and schedule)
- Did the changes in the plan respond to the needs of beneficiaries?
- Were the changes in the plans consistent with the policy of the government?
- Did the implementation process of the project provide an opportunity for people related to the project to learn?
- Was the implementation process appropriately changed according to the local situation?
- Did technical guidance utilize local equipment and materials? Was it appropriate to the technical level of local human resources?
- Was the equipment utilized for technical guidance contrived and applied according to the local situation?
- Was the progress of the project monitored periodically?
- How was the decision related to modification of the project plan made during the process of the project implementation?
- How was the relationship of the project (i.e., implementing body and local implementing organization) with JICA headquarters and the overseas office?
- How was the communication in the project?
- How was the relationship with the local administration and governmental organization?

Since many grassroots type projects respect operations

**Table 3-27** Classification of Evaluated Projects

Classification		Description	
1	Classification by project implementation style	Direct operation type	The implementing body directly implements a project locally.
		Partner type	The implementing body and local implementing organization in the target country jointly implement a project.
2	Classification by cooperation scheme*	Empowerment focus type	Communities are proactively involved in the implementation of a project and their initiative is emphasized in the process of the project.
		Technical guidance focus type	Utilizing techniques of a specialized field, technical guidance is provided to residents or community organizations with emphasis on human development.
3	Classification by cooperation contents	Multi-sector focus type	A project concerns several issues and some activities are combined to implement the project.
		Specific sector focus type	A project concerns only one issue and the project is implemented for activities in a specific sector.
4	Classification of project evolution after termination	Continuous support type	Even after termination, cooperation continues in the form of another cooperation scheme of JICA (such as JICA Partnership Program or Technical Cooperation Project) or an NGO's independent project.
		Definite period type	A project is implemented within a definite cooperation period and after ending the cooperation period the activities are taken over by a local NGO or communities.

\*Projects in the form of service provision can be classified into technical guidance focus type, and delivery focus type, which is cooperation for livelihood improvement among local residents by providing supplies as a substitute for service provision; however the delivery focus type is excluded in this study, as there is no such delivery focus type project.

that flexibly respond to the needs of beneficiaries, it is important to examine whether the plan was modified according to the needs of beneficiaries as well. Importance is also placed on learning effects during the process of project implementation. On the other hand, it is also important to check whether the modification of the plan and the policy of the government were consistent since it is an ODA project.

## (2) Evaluation Using the Five Evaluation Criteria

### 1) Relevance

- Were the characteristics of the target area well understood, and were the needs of the target area and society, as well as beneficiaries, accurately understood from the activity in the target area effectively?
- Was the selection of the target group appropriate? Were the opinions from the target group reflected during the selection process?
- Was there consistency with the development policy of the target country?
- Was there consistency with the aid policy of Japan and JICA Country Program?
- Do the planning process and plan contents of the project, methods, and approaches of cooperation respond to the needs of the target area?
- Did the cooperation project avoid overlap with similar projects of other donors?

Grassroots type projects are implemented to directly interact with local residents of a target country in order to reflect their needs in the process of implementation. Therefore, to evaluate the relevance of a project, specific perspectives were important, such as whether the characteristics of the target area were well understood and whether the needs of the target

area and society, as well as those of the beneficiaries, were accurately understood using the activity experience in the target area effectively.

### 2) Effectiveness

- Did the beneficiaries (the communities of the target area) gain expected effects by implementation of the project?
- Were the effects of the project purpose caused by outputs?
- What kinds of influence did external conditions have on the beneficiaries until the achievement of the project purpose?
- Were the regional characteristics and the existing system understood and utilized for the project implementation?
- Did the NGO demonstrate originality and ingenuity? (Were the superiority and specialty of the NGO utilized?)
- Was an effective mechanism established to spread the cooperation effects?
- Were any human resources who could share their position as a beneficiary included in the project staff (local staff)?

To evaluate the effectiveness of a grassroots type project, it is important to determine whether the beneficiaries (the communities in the target area) receive the expected effects. In many projects, the specialty, originality, and ingenuity of an NGO are utilized to implement community-based detailed cooperation, and this feature often becomes a factor in boosting the effects of a project. Therefore, when evaluating factors that inhibit and promote the achievement of the project purpose, knowledge of the originality and ingenuity, regional characteristics, and the system need to be utilized. It is also



## 17 Evaluation Study: Case 1 Understand the Changes in Beneficiaries due to Project Implementation

### Integrated Rural Development in Kenya

By making a well in the village, the farmers were able to secure safe drinking water. As a result, they are less exposed to infectious diseases borne by water, and their health situation is mostly improved. Introduction of agricultural products more suitable for dry lands has improved the self-sufficiency rate and balanced nutrition, thus promoting better health among the farmers. In addition, training in health care and sanitation have made residents aware of the importance of installing toilets and cupboards and boiling drinking water; and health care and sanitation have been con-

sidered at home as well.

In the field survey of this project, discussions by activity groups and group interviews were conducted to collect information to determine how the project has changed farmers' individual lives and how the entire village has changed. The actual activity sites were visited for observation as well. In addition, the personnel of the local administration organization in charge of the project activity, as well as community leaders, were individually interviewed (key informant interview) to collect information. As a result, the following changes were confirmed: the individual lives of the farmers were improved; activity groups

started helping one another, and the living environment in the entire village was improved and the infectious diseases borne by water decreased.

(Field survey results)



Group interview for evaluation study  
(Integrated Rural Development in Kenya)

necessary to consider the presence of a mechanism that has ripple effects on people who are in an environment where the cooperation effect cannot be reached easily (Box 18).

### 3) Efficiency

- Were the contents and scale of the inputs appropriate to achieve the outputs? (Verification result of performance)
- Was the timing of improvements in the facility and equipment and material carry-in appropriate?
- Were the fields of dispatch of experts and the timing of the dispatch appropriate for the project implementation?
- What kinds of inputs (cost sharing) were made by JICA, the implementing organization, the beneficiaries, and other organizations?
- Was the scale of the inputs appropriate for the implementing body and the local implementing organization to utilize effectively?
- Were any substitute methods for more effective inputs sought?
- Were locally available human resources and equipment utilized?
- Were JICA's network and resources utilized?

In a grassroots type project, in addition to the perspective as to whether the inputs were conducted flexibly and in a timely manner, it is necessary to consider whether the inputs were in line with the local situations and needs. Since the operation scale of the implementing organization is not uniform, it is also important to examine whether the scale of the inputs was appropriate for the project management capacities of the implementing organization and local implementing organization.

On the other hand, in a grassroots type project, the bearing of expenses and labor on the beneficiaries' side may promote community participation in the project. It must be taken into special consideration at the time of evaluation. Other perspectives necessary for evaluation include whether substitute methods of more effective inputs were sought, whether local-

ly available human resources and equipment were utilized, and whether JICA's network and resources were effectively utilized in terms of collaboration with JICA.

### 4) Impact

- Is the occurrence of the effects as the overall goal expected by implementing the project?
- What kind of influence does the project implementation have on each class of beneficiaries?
- Are changes generated in the livelihoods and attitudes of beneficiaries?
- Are there any impacts on communities and organizations outside the target area?
- Are there any impacts on the system, ordinances, and rules of the government and administration?

A grassroots type project is directed at the community and takes extensive improvement in livelihoods into account in the implementation process. Impacts can be generated at various levels by the implementation of such project, including changes in awareness and the living situations of the community (beneficiaries), and changes in the peripheral environment. Therefore it is necessary to confirm what kinds of impacts the project implementation brought about at each class of beneficiaries (Box 19), as well as whether changes were generated in the living situations and attitudes of the beneficiaries.

### 5) Sustainability

- Does the local implementing organization demonstrate organizational, technical, and financial sustainability?
- Do the beneficiaries have intentions and plans to maintain the activities?
- Are sufficient funds secured for the beneficiaries to maintain the activities?
- Is ingenuity demonstrated during the project to secure and promote the benefits of the project activities?

Many grassroots type projects have a purpose to benefit local residents directly, and beneficiaries tend to get involved

## Box 18 Evaluation Study: Case 2 Mechanism to Spread Cooperation Effects

### Community-operated Reproductive Health Project in Bangladesh

In this project, in order to provide reproductive health/family planning (RH/FP) services for the women in a rural village in Bangladesh, who are restricted from opportunities to go out, a mechanism was established utilizing local family development volunteers (FDV) who visit houses to meet the women directly to deliver the service.

In the evaluation study of this project, the project staff and the FDVs were directly interviewed. The survey revealed that women received RH/FP services through the FDV's individual visits and started going to see a doctor in a clinic and confirmed that the mechanism of spreading is effectively functioning.

(Results of terminal evaluation)



Interview during evaluation study (Community-operated Reproductive Health Project in Bangladesh)

directly in the implementation of activities. Therefore, key factors for judging whether beneficiaries can receive the benefit continuously are whether beneficiaries have intentions and plans to maintain the activities and whether funds are secured for the beneficiaries to maintain the activities from a financial aspect. Additionally, it is also necessary to pay attention to whether any ingenuity was demonstrated during the project to secure and promote the benefits of the project activities so that the activities could be maintained after the termination of cooperation.

In general, many Japanese NGOs that act in development aid are relatively small and implement community-oriented cooperation. Their cooperation projects are implemented for the long-term. In contrast, the NGO Collaboration Program is a part of the ODA, so it has a purpose to achieve project outcomes within a fixed period of time. To sustain the effects generated by a project, organizational, technical, and financial sustainability of the local implementing organization is critical.

## 6-5 Cross-sectional Perspectives Especially Required for Evaluation of Grassroots Type Projects

Based on the perspectives of evaluation provided in the revised JICA Guideline for Project Evaluation, the previous section described important points to be noted in evaluating grassroots type projects. This section introduces the cross-sectional perspectives that the evaluation subcommittee

extracted as important factors in evaluating grassroots type projects, such as community participation, empowerment, gender and social considerations, and NGO collaboration.

### 1) Community Participation

- Did the beneficiaries sufficiently participate in the planning and implementing stages?
- Who participated in the project (social conditions of the participants)?
- What were their motivations for and attitudes toward participation?

A grassroots type project respects flexible operation and management. In many projects, it is believed that the implementation process is an opportunity to learn for both local residents and the project implementing side, and proactive participation by local residents in activities is important. Therefore, it is important to evaluate whether the beneficiaries sufficiently participated in the planning and implementing stages.

Target communities have different needs and status depending on the social and economic situation of the local resident. Therefore, it is important to understand the specific social and economic situations of the participants. In addition, their participation status, which differs depending on the degrees of active participation and opinion exchange, as well as participation in decision making processes, needs to be checked. Confirmation by directly interviewing the project staff and the residents are believed to be effective in this regard.



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### Evaluation Study: Case 3 Impacts at Various Levels (Activity of Water Supply Improvement)

#### Rural Development in Kenya

In this project, a deep well was constructed as a water supply improvement activity, and a water committee was established so that residents could control and sell the water. The activity for improvement of water supply brought a positive impact on each level of the village and individuals. At the village level, the project established an operational and management system of the well with water control and increased opportunities to consider an effective operating method of the organization; for example, how the proceeds from sales should be utilized for the village and how the equipment maintenance system should be operated. The residents became aware of collaboration in the community through experiencing the management and operation of the facility as the provider of the service. It

became possible for women to manage the water committee, contributing to the empowerment of women. A youth group started promoting the activities for improving the environment around the deep well by building a fence around it. On the other hand, at the individual level, the project reduced water drawing labor and produced free time, particularly among women, which was in turn spent on other activities (agriculture, small-scale business). Water became available for agriculture and livestock, stimulating activities in the agricultural sector. Securing safe drinking water reduced infectious diseases borne by water and mostly improved the health conditions of the residents. Though water drawing was conventionally regarded as women's work, not a few men showed up to buy water at the water station, which shows

that the roles of men and women at home are changing.

This project falls into the multi-sector focus type, which involves various activities. In the evaluation study, group discussions among participants of each activity and individual interviews (key informant interview) were carried out to find out what kinds of changes appeared at the individual level and the village level through the implementation of the project. Questions about changes in life were asked and confirmed for each level of individual, family, and activity group, as well as for the entire village. As a result, it was confirmed that impacts by the project implementation occurred at various levels such as changes in individual lives, and changes in the village.

(Field survey results)



## 2) Empowerment\*

- Were any efforts made to promote empowerment of the beneficiaries? What kind of empowerment was promoted for what kind of people?
- Was the local staff empowered?

As means to promote community participation, the perspective to evaluate the empowerment of beneficiaries is important. In particular, a grassroots type project highlights opportunities to learn for both the local residents and the project implementing side, and tends to encourage voluntary participation from both sides. Therefore, evaluation of a grassroots type project requires attention to empowerment on both sides—the beneficiaries and the project implementing side. Specifically, consideration as to whether any efforts were made to promote the empowerment of the beneficiaries and the local staff is needed to evaluate the project. Target communities have different needs and status depending on the social and economic situation of individuals. Therefore, the ingenuity of how to support empowerment also differs depending on the backgrounds of the beneficiaries. To see the approaches for empowerment, it is necessary to pay attention to what empowerment was promoted for what kind of people. To evaluate the empowerment of the beneficiaries, it is also necessary to consider whether special attention was paid to the beneficiaries who are isolated in an environment that provides socially limited access.

## 3) Gender and Social Considerations

- Was gender considered when observing changes in the living situations and attitudes of the beneficiaries?
- What kinds of approaches were made to the target people?
- What kinds of positive and negative impacts did it have on the target people of different genders and levels?
- Was gender considered when the evaluation was conducted?

A grassroots type project, which is directed at the community as the main beneficiary, tends to directly bring about changes in the ways of thinking and livelihoods in the community. Especially when women are direct beneficiaries and their ways of thinking and livelihoods are changed in the project, the life of the family tends to improve, and the above-mentioned perspective becomes more important. Additionally, as received influences on gender differ depending on the gender balance of the people concerned and social positions of

each gender, it is also important to understand those issues.

## 4) Evaluation of NGO Collaboration\*\*

The NGO Collaboration Programs are projects combining the advantages of NGO projects and JICA projects, and are expected to generate advantages that cannot be obtained by either project.

### a. Evaluation of JICA side

- Was the expected advantage (specialty) of the NGO applied?
- Did JICA learn from it?
- Was consistency with a JICA project secured? Was expandability promoted through collaboration with a JICA project?
- Were there any problems or tasks generated through the collaboration?

When evaluating the advantages of collaboration with NGOs, it is important to determine whether their past performance in the target area and the valuable information on regional characteristics and specific sectors were utilized in the project formation. It is also important to determine whether the project took advantage of the original viewpoints and ideas of NGOs.

In a grassroots type project, activities that benefit the grassroots people are implemented mainly from micro aspects. Regarding the role of NGOs, especially the role in the NGO Collaboration Programs, it is also important to determine how micro activities are incorporated into the macro system (such as policies of the local government, collaboration with a larger project and policy recommendations). The perspectives of evaluation include, for example, did the NGO Collaboration Program back up the embodiment of any part of cooperation in JICA Country Program? Was there expandability, such as positioning the project by utilizing the characteristics of NGO activities as a component of the program in the process of a program approach?

### b. Evaluation of NGO side

- Were the expected advantages of collaboration applied?
- Did it lead to strengthening the system of the organization?
- Did the NGO learn from it?
- Was flexible project management possible?
- Were there any problems or tasks generated by collaboration?

\*Volunteer, NPO Yogo Jiten, Chuohoki Publishers, March 2004 (pp.44-45). Empowerment means the self-realization that allows a person to live fully and individually based on independent decision-making while drawing inherited capabilities. It is necessary to pay attention to individual self-esteem as a precondition to realizing empowerment. It is equivalent to the recovery of self-confidence at the individual and psychological levels. Feelings of acceptance and having a positive opinion about oneself are encouraged and the will and power to insist on one's legitimate interests and rights with regard to the social situation undermining an improvement in one's livelihood are restored. Empowerment is then realized. To raise self-esteem, it is necessary to receive positive power and circulate it through various relationships with other people and environments. Accumulation of experiences such as being recognized, interested, heard, cherished, praised, appreciated, and trusted nurtures self-esteem. Empowerment is realized based on a positive sense of oneself and trust in oneself and others. (Kin, Kayuri)

\*\*Information was collected from the minutes of meetings of the NGO-JICA Collaboration Program Examination Committee for the projects subject to literature review, and from interviews with implementing organizations for the projects subject to field surveys.

The purpose of the NGO Collaboration Programs on the NGOs' side is to combine the know-how and experiences of JICA to implement international cooperation that can reach the grassroots level. In the evaluation, it is necessary to consider whether the expected advantage of collaboration was applied. The interviews with NGOs revealed the following points as advantages of collaboration with JICA: smooth negotiations with the government; realization of a project of a large financial scale; reduction of the burden of fund-raising; specialized and useful advice from JICA experts and staff; and effective cooperation obtained by JICA's human network (JOCV, SV, etc.). These points can serve to confirm the effects of collaboration. In terms of strengthening the system of the organization, some evaluation results show that there were chances to learn with regard to ideal project evaluation, appropriate technologies, project implementation system, perspec-

tive of sustainability, project formulation with a long-term perspective, and project management.

On the other hand, the NGOs raised the following points as disadvantages of collaboration with JICA during implementation: complications in accounting and other clerical matters, and the negative influence of time-consuming procedures for project implementation, which delayed the timing of an activity. In addition, it was also pointed out that the budgets are difficult to spend flexibly, and that explanations of how to utilize the funds were insufficient. Another problem generated by collaboration was that the involvement of many related personnel from JICA headquarters, overseas offices, and NGO headquarters easily generate gaps in recognition, and the unclear roles of the overseas office had a negative impact on the project implementation.