V. Lessons Learned and Recommendation

The evaluations covered in this report identified many lessons learned and recommendations, and this section presents a compilation of those that have relevance to the future direction of JICA's cooperation scheme.

Twelve items are mentioned below: numbers 1 to 3 deal with project formulation, numbers 4 to 6 are related to the implementing organization in the partner country, numbers 7 to 10 focus on fields of cooperation and development issues, and numbers 11 and 12 concern the implementation structure of JICA's overseas offices.

1. Clarifying the Path of Impact from the Direct to the End Beneficiaries

(1) In general, JICA works directly with government organizations in the partner country, and it expects personnel in the recipient agency (i.e., the counterparts) of technical transfer from JICA to do the work of extending this technology to the end beneficiaries (local residents, etc.). This is known as the "trickle down effect". However, one thematic evaluation entitled "Poverty and Gender in Agriculture and Forestry Cooperation in Paraguay" pointed out that the target projects often had a problem in this process. The evaluation discovered that, although members of the impoverished class were intended to be the end beneficiaries of projects in this field, in actuality there was a tendency to view the counterparts themselves as the beneficiaries. In this kind of cooperation, the counterparts are expected to serve as "go-betweens" that provide services to the final beneficiaries. That is why, prior to project implementation, it is necessary to identify which groups in which social levels constitute the end beneficiaries, and then to clarify the route through which the counterparts will actually extend the effects of cooperation to these beneficiaries.

(2) Generally speaking, it takes quite a bit of time for the effect of cooperation to reach the end beneficiaries. Because of this, it is essential to clarify the role that the project will play based on a clear understanding of the overall process for extension of these results, including education of the extension workers and others that will transfer technology to the beneficiaries.

(3) It is important for the recipients of technical transfer (i.e., counterparts) to be able to continue extending skills and know-how to the end beneficiaries (local residents, etc.) even after the end of cooperation, and an effective means of achieving this is to include extension activities and capacity-building to support these activities in the plan of cooperation.

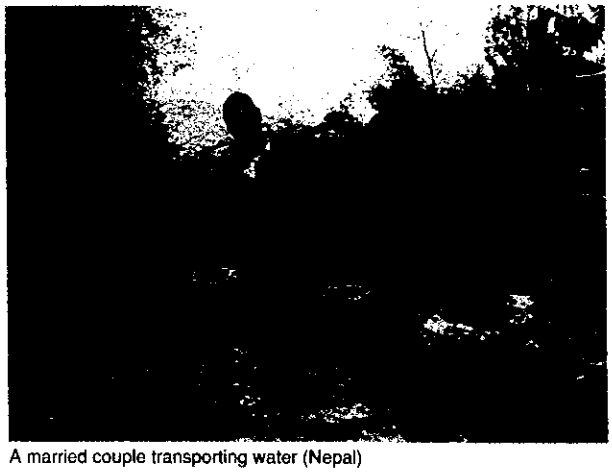
2. Considering a Workable Scale and Narrowing Down Objectives at the Formulation Stage

Out of the eight projects included in this report that were judged to have not met all of their objectives, six had relatively short cooperation periods of three years. As for why these projects could not achieve their objectives within the cooperation period, many were identified as having cooperation periods that were too short or objectives that were set too high. This poins out the necessity of conducting sufficient pre-project studies, of considering the conditions in the partner country in order to determine a realistic project period and input amount, and of narrowing the range of objectives as much as possible during the project formulation stage.

3. Ensuring the Sustainability in Planning and Implementation

(1) The evaluations of many projects indicated that, in order to secure sustainability at the organizational level, it is important to improve not only the technical capacity but also the management capabilities of the implementing organization. Also, in order to ensure that cooperation also supports the managerial aspects of projects, it is important to clearly state in project plans that establishment of a management framework and fostering of instructors are to be included among the expected project outputs.

(2) Evaluations for many grant aid projects in particular pointed out that, in order to secure project sustainability, it is important to strengthen assistance in the "soft" elements of cooperation (i.e., improving capabilities in maintenance of equipment



A married couple transporting water (Nepal)

and supplies, management of facilities, etc.) by working in collaboration with technical cooperation activities. For example, the evaluations for the "Rural Drinking Water Supply Project" and the "Rural Water Supply Project"in Morocco pointed out that combining a grant aid project with technical cooperation in managerial aspects contributed to raising sustainability.

(3) One effective method of ensuring the financial sustainability of projects is to devise ways for projects to obtain revenue on their own. For example, a training institution that is serving as a base for cooperation might collect fees from its trainees to help cover its operating expenses.

4. Phased Implementation is Effective, if the Recipient Country Not Fully Prepared

(1) Taking the National Center for Environmental Research and Training (Phase II) in Mexico as an example, it was determined that there was an urgent need to immediately commence this project despite the fact that required preconditions had not been adequately met. The project has been successfully implemented using a stepped process: The first step was a two-year Phase I, during which basic technical transfer to establish the organizational framework for the Center–the project's activity basis–was carried out. This was followed by Phase II, which enhanced the content of cooperation even further.

(2) There have been cases in which attainment of project objectives has been hindered by delays in the construction of facilities by the partner country. That is why it is particularly important to confirm the partner country's ability to provide necessary input prior to project implementation, and to remind and urge them on a regular basis.

JICA conducted cooperation at the National Center for Environmental Research and Training in Mexico over a two-year period to established the Center's organizational structure before commencing a second phase of cooperation (National Center for Environmental Research and Training [Phase II])

5. Establishment of Coordinating Structure when Multiple Implementing Organizations Involved

While for the most part it is desirable for a project to have only one implementing organization, there are cases where, in order to realize appropriate results, cooperation must target a number of different organizations. In this case, it is necessary to set up a coordination structure by clarifying the responsibilities of each organization, by mobilizing experts, and by establishing a coordinating committee made up of related agencies in the partner country.

6. Understanding the Responsibility and Capabilities of Local Authorities when Decentralization Project Implemented

(1) Many local governments that have recently been assigned responsibility for projects due to decentralization tend to be financially weak and might not possess the appropriate skills or know-how to carry out projects. Furthermore, there are many cases in which regional government is divided among many levels—from the state-level to the town- and village-levels—which complicates its relationship (including authority for project implementation) with the central government. That is why, when formulating future projects, it will be important to fully examine the relationship between each body concerned, as well as each body's ability to procure funding, draw up project plans, and implement projects. It will then be necessary to include "development of local government capabilities" in the content of cooperation as required.

(2) When there is a complicated relationship between government bodies (responsible for project activities) at the central and regional levels, coordination between these agencies becomes the key to project success. This makes it important for experts to serve as a pipeline between the central and local governments.

7. Taking a Cross-sectoral and More Flexible Approach for Poverty Alleviation Strategy

(1) The "JICA-UNDP Joint Evaluation (Poverty in Tanzania)", which targeted the Kilimanjaro Village Forestry Project (Phase II) in Tanzania, revealed that there is a gap between "poverty as perceived by donors" and "poverty as perceived by the local people". The evaluation also found that, even among the local people, there are differences in perception according to region and gender.

This points to the necessity to consider the "diversified aspects of poverty" when setting the scope of cooperation during formulation of projects for poverty reduction.

(2) Because there are a variety of elements involved in the poverty issue, the impact that sector-specific projects can have on poverty reduction is limited. Although other donors are implementing a "multi-sector approach" that covers several sectors, it is difficult to respond to all poverty issues through the implementation of one project because of the capabilities of executing bodies in the partner countries is limited. Because JICA has the advantage of having accumulated experience of technical transfer in specific fields over many years, it is believed that a phased approach is its own most effective means of approaching poverty. This involves focusing technical transfer on one sector as an "entry point", and then gradually expanding activities to other sectors in accordance with regional needs.

(3) In the Kilimanjaro Village Forestry Project (Phase II) mentioned above, "reduction of poverty" was not a direct objective. However, in order to conduct afforestation smoothly, the project carried out activities designed to improve living conditions, such as construction of schools and promotion of livestock raising, and these activities had a positive effect on efforts to reduce poverty.

This effect was caused by JICA experts, who deepened their interest in the lifestyle of local people, and got positively involved in the social activities. However, for this effect to be ensured in all the projects, it is important to have policies to include the social activities in the project scope, rather than leaving it to the discretion of each expert.

8. Promoting the Active Participation of the Disabled as well as Establishment of an Environment to support their Participation

(1) In order to efficiently implement cooperation that meets the needs of people with disabilities, it is important to seek the active participation of disabled persons throughout the entire project cycle, which includes project formulation, implementation and monitoring, and evaluation. It is equally important to establish an environment that supports their participation, for example, by transcribing educational materials into Braille for visually impaired people, etc.

(2) Securing access to social and economic activities is an important means of helping disabled people participate in society. In order to accomplish this, when implementing cooperation (development studies, grant aid, etc.) for infrastructure and facilities, it is important to take the people with disabilities into consideration by including provision for the building of wheelchair ramps, etc.

Trainees playing wheelchair basketball in the schoolyard of their vocational training center (Thailand)

9. In Advanced Technology Field, Flexible Response to Rapid Changes in External Conditions is Necessary

(1) Because the needs and conditions of partner countries change rapidly in advanced technology fields, flexibility to modify action plans during the cooperation period is essential.

For example, rapid expansion of Internet use in Thailand during implementation of the Industrial Property Information Center project has meant that new items must be added to the content of technical transfer. In addition, because the PFP Industrial Property Rights project, also implemented in Thailand, achieved its goals earlier than expected, training items were added to meet new needs. From the result of this project's evaluation, it was recommended to set the initial project cooperation period only for three years rather than five, and then consider extension of this project based on necessity.

(2) Trends and needs connected with advanced technology are highly changeable, and it is difficult for long-term experts in specific fields to respond on their own. One idea for resolving this situation is to leave technical transfer primarily to short-term experts while long-term experts concentrate on coordination.

(3) It is also difficult to secure appropriate expertise to implement cooperation in advanced technology both in Japan and partner countries. That is why it is important to secure Japanese companies willing to dispatch their employees as Japanese experts as well as the domestic support structure. Also, in cases where there are difficulties securing counterparts with the appropriate technical level in the partner country, it is considered effective to include a pre-project training period in the project that allows counterparts to bring their abilities up to speed. Furthermore, in cases where counterparts are lured away from their posts by private

companies, etc., there is a need to devise ways to limit the effects this has by, for example, sharing information or preparing textbooks.

10. Conducting Cooperation toward Real-world Application and Extension, even in Research Cooperation Projects

(1) Research cooperation projects aim primarily to improve the capabilities of researchers and others working in research institutes in the partner country. The overall goal of many of these projects is the application of the results of research conducted in these institutes in the real world. To achieve this, it is necessary to keep two items in mind during the cooperation period: reflection of these results on government administration, and their extension to people and enterprises.

It is therefore desirable to formulate project plans that include extension of developed technology by, among other activities, assigning an expert to take charge of extension. However, even in cases where extension activities are not included in the scope of the project plan, it is necessary to maintain consideration for extension in the future. This can be done by incorporating verification experiments into action plans or by making the maximum effort to employ the results of research activities in the target region, etc.

(2) In order to reflect the results of research on government policy, it is important to grasp prior to project implementation, the mandate and authority of the implementing organization as well as the policy-making process of the partner country's government.

For example, in such fields as the environment, where the fruits of cooperation can be demonstrated through reflection of research results on government policy, it is necessary for the implementing organization to have the authority to make recommendations to the government.

11. Strengthening Overseas Offices for More Efficient and Effective implementation of Country-focused Training Programs

(1) In order to implement training that meets the needs of its participants, a clear understanding of local needs when formulating Country-focused Training Programs is vital. This means that JICA's overseas offices must carry out highly accurate request surveys.

(2) In addition to raising the awareness of training participants during the training period, it is also effective to encourage participants to diffuse the technology learned to the organizations they belong, after returning to their home countries.

Training for reproductive health worker conducted by NGO (Cambodia)

12. Delegating Authority to and Strengthening the Function of Overseas Offices to enhance coordination with local NGOs

(1) Quick decisions and precise action are required when identifying, formulating, and implementing projects under the Community Empowerment Program, and it is extremely difficult for JICA Headquarters in Japan to handle all of these. That is why it is considered desirable to strengthen JICA's delegation of authority to its overseas offices, as this would allow JICA Headquarters to take a coordinating and advisory role.

On the other hand, the overseas offices must handle a large amount of individual applications for Community Empowerment Program projects, which places a large burden on them in terms of time and labor. This means that it is necessary to streamline relevant operational procedures by, for example, signing comprehensive agreements with partner governments prior to the implementation of cooperation.

(2) Close communication with NGOs is essential to the success of Community Empowerment Program projects, and this points to the need to build even stronger mutual trust by increasing opportunities to work and exchange opinions with NGOs. One example of efforts in this area is JICA's assignment of a project formulation advisor that can speak Bahasa Indonesia to its Indonesia office. This advisor is helping JICA to smoothly build trusting relationships with local NGOs and to spur cooperation with Indonesian government agencies. Consideration of this nature must be made when JICA assigns personnel to overseas offices that are overseeing projects implemented under the Community Empowerment Program.

(3) It was considered that Community Empowerment Program projects are a suitable countermeasure to the economic difficulties facing Asia. This resulted

in speedy formulation of projects being placed as the top priority, and there was a tendency to expand the scale of projects beyond the implementation capacity of NGOs. While the large scale of assistance has had the merit of making even more wide-ranging cooperation possible, at the same time there is a fear that it will also lead to increased dependency on JICA by NGOs as well as a decline in the sustainability of projects and organizations. That is why, when implementing aid, it is important to carefully consider the appropriate scale of cooperation so that it meets the implementation capacity of NGOs

(4) Holding forums for mid-level organizations under the supervision of JICA's overseas offices or networked NGOs to help strengthen their management and organization of projects is thought to be an effective way of promoting fine-tuned project management that is based on local conditions without increasing the burden on the overseas offices.

VI. State of Efforts toward Items Recommended in the Last Year's JICA Annual Evaluation Report

One of the major objectives of JICA's evaluation studies is to reflect the results of these evaluations in the formulation and implementation of projects in order to improve project quality.

This section will present current JICA efforts to address the lessons and recommendations identified in the FY2000 JICA Project Evaluation Report.

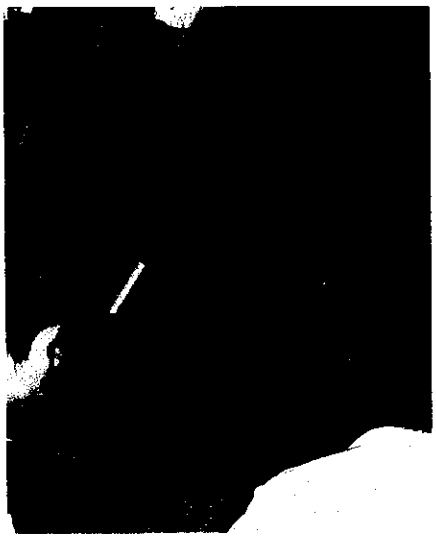
1. Promotion of Participation of Personnel from the Partner Country in the Process of Cooperation

One of the items identified in the FY2001 Report was the importance of obtaining wide-ranging participation from the partner country from the project planning stage to ensure that projects meet that country's needs.

Looking at the project-type cooperation scheme, almost all projects are implementing PCM workshops at the project formulation stage. These workshops are used to reflect the opinions of the implementing organization and local residents of the partner country in project planning.

In the case of the Community Empowerment Program and other schemes, instances where project administration is entrusted directly to local NGOs have been increasing in recent years. There are also many cases in which local residents, which are the beneficiaries of cooperation, participate not only in the planning phase but also in the implementation phase.

Furthermore, in the development study scheme, discussions with the beneficiaries of projects (members of industry and citizens' groups) are being held as necessary during the study process. Looking at the Study on Nam Ngiep No. 1 Hydropower Development in Laos, a public hearing and an environmental impact assessment related to electrical development were carried out during the first phase of the study. The results of these activities are used to reflect the opinions of the local residents in project formulation by being referenced in decisions and other activities pertaining to implementation of the second phase of the study.



A PCM workshop for local villagers (Indonesia)

2. Cooperation with an Eye Toward Sustainability following the End of Cooperation

In the interest of securing the sustainability of cooperation following termination, it is important to establish a management structure during the project period.

In order to achieve this, JICA is following a strategy that calls for 1) inclusion of guidance on management as part of projects, 2) conduct of detailed studies of the scale of cooperation to make it suitable for the capacity of the partner government, and 3) promotion of self-help efforts so that JICA does not simply bear local costs.

Furthermore, JICA's development studies do not just formulate plans. They also find ways of leaving know-how for carrying out studies with counterparts through implementation of pilot projects and verification studies as well as on-the-job-training.

Also, as required, projects under JICA's grant aid scheme are providing the "software" component of cooperation. This includes educational activities for local residents, organization-building to promote the maintenance and management of facilities and equipment provided through the scheme, and technical cooperation that provides instruction on the use of equipment or prepares operation manuals in the local languages, among other activities.

Finally, JICA is currently conducting a study entitled "Ways of Strengthening Organizational Management Capacity for Effective Implementation of Aid" as a means of systematically accumulating the fruits of the above efforts. This study is expected to provide JICA with recommendations on methods for enhancing the organizational management capacity of developing countries as well as implementation of JICA's cooperation in general.

3. Enhancement of the WID/Gender Perspective

JICA is dispatching experts responsible for WID and Gender to projects based on local residents' participation, particularly in the agriculture and forestry fields, as a means of enhancing awareness of these issues.

JICA has also dispatched an expert on "Gender mainstreaming" to the Indonesian Minister of Home Affairs' Office, which is responsible for overseeing the role of women in the country. This expert is preparing and analyzing gender-related statistics for application during project planning.

In addition, JICA is also implementing cooperation that targets women. An example is Support for Girl's Education, which is a project being implemented in Guatemala by an individual expert and JOCV.

Finally, in order to foster the human resources that will support consideration for gender, JICA is conducting a variety of training courses aimed at personnel from the governments of partner countries as well as JICA expert. As an example of this effort, JICA is implementing nine group training courses, including two entitled "Women and Development" and the "Seminar on Promoting Education for Girls and Women". It is also implementing the "Course on Poverty Countermeasures from the Social and Gender Perspectives" in order to train experts as aid personnel.

4. Improvement of Third-country Training Program and Formation of a Network of Ex-trainees

The FY2000 JICA Evaluation Report recommended that improvements should be made to the Third-country Training Program and that a network should be built linking ex-trainees that have returned to their home countries. As a way of pursuing the former recommendation, JICA is holding regional specific conferences on Third-country Training Program. These conferences bring together personnel from the aid-receiving agencies and training institutes of the ASEAN-5 countries, which implement a particularly high number of Third-country Training courses, to draw out issues related to the implementation of such training and to discuss methods for improving the scheme. Fruits obtained so far from these conferences include a detailed study on the preparation of training manuals and the content of training to avoid overlap, and creation of an Internet website devoted to Third-country Training Program to promote information sharing.

In addition to the points mentioned above, JICA is currently considering putting alumni groups of ex-trainees to use in 1) creating an information network and 2) establishing a human resources bank. JICA is also examining ways to strengthen its follow-up for training.

5. Enhancement of Publicity Activities

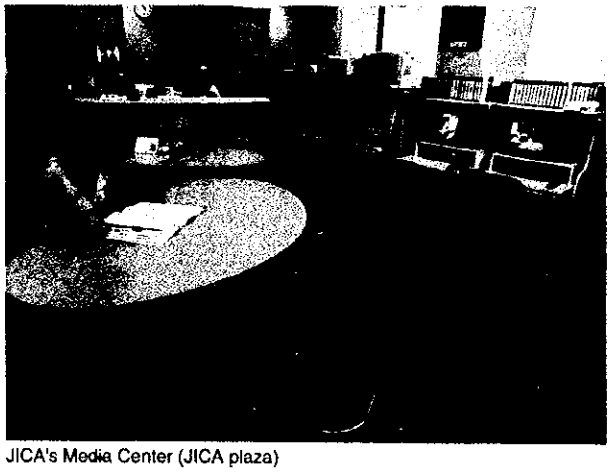
Because taxes collected from the Japanese public serve as JICA's source of revenue, JICA must actively work to make information on the effectiveness and status of its projects available to the community in order to promote understanding.

That is why JICA has established a Media Center within its Headquarters where photos, videos and other materials can be freely viewed by the general public. Also, JICA's overseas offices are setting up Internet web sites to help them conduct publicity activities.

Furthermore, regarding individual projects, and in particular those conducted under the Project-type Technical Cooperation scheme, JICA is working to present the content of its projects to as many people as possible, both inside and outside of Japan, by producing pamphlets, posters, and videos; distributing newsletters; holding forums; and establishing web sites among other activities. Even in the case of Development Studies, JICA is engaging in an effort to produce materials that summarize the result of the final report in Japanese and English.

Furthermore, in an endeavor that goes beyond just making information available, JICA is beginning to implement projects that reflect the opinions of Japan's citizens. For example, the research project entitled "Working Group on Aid to Central Asia" is putting the drafts of its reports on the Internet to obtain comments from a variety of people, and the "Second Working Group on Aid for the Environment" is holding seminars that are open to the public in the interest of reflecting the public's opinions on JICA's activities.

In addition to publicity activities in Japan, it is important to make information available to the citizens of partner countries as well as other aid organizations, JICA is putting a large amount of project data on its English website. It is also holding conferences with other aid organizations on the project implementation process and extending feedback from these conferences to other organizations, and conducting technical extension and publicity activities directed at local personnel through the holding of seminars at the completion of projects.

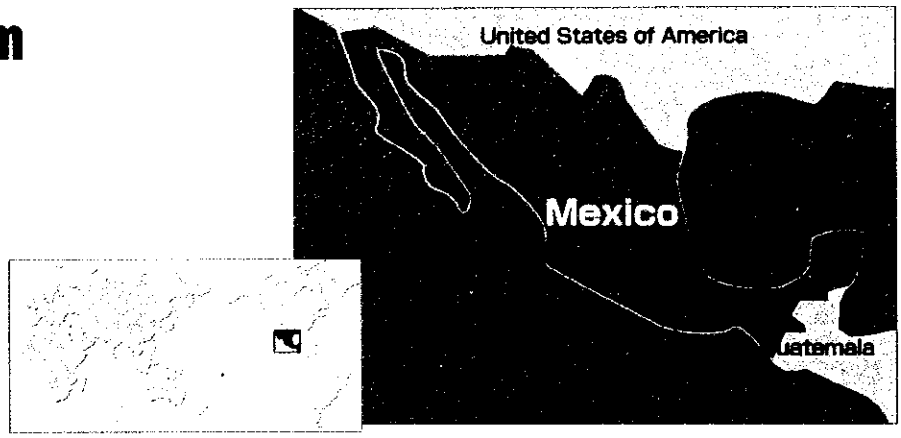


JICA's Media Center (JICA plaza)

Chapter 2
Ex-post Evaluation

Mexico

Country-program Evaluation



Project Site: Mexico (Nationwide)

1. Background and Objectives of Evaluation

In the 1990s, the governments of industrialized countries accelerated system reforms in their public sectors for political, economic and social reasons.

Since these system reforms were extended to aid organizations, donor agencies were obligated to produce and document substantial outcomes from the aid provided to developing countries. Aid organizations had thus applied Logical Framework (or Project Design Matrix) in order to make aid projects effective, while the Logical Framework was developed mainly to increase the efficiency of each particular project, but not to improve a comprehensive aid program. Today, however, it is expected to produce an integrated outcome, which will bring about holistic solutions to development issues through the contributions made by various projects as a whole. It is, therefore, necessary to establish a framework that enables development assistance to produce a comprehensive outcome rather than individual projects outcomes.

Against this background, construction of a framework of Country-Program Evaluation (CPE) is in progress on the initiative of OECD in collaboration with donor countries and international organizations. "The Country-Program Evaluation on Mexico" was therefore planned and conducted by JICA in an effort to contribute to creating such an evaluation framework.

Objectives of this evaluation were as follows:

1) By evaluating the contribution of JICA aid to the development of Mexico in the past ten years from 1988 to 1998, i.e. from the time of the former Salinas administration to the then Zedillo administration, to clarify the problems and issues relating to the aid, and draw recommendations which would make the aid to Mexico more effective.
2) To draw lessons applicable to other countries to which JICA extends technical cooperation.

2. Evaluated Programs/Projects

This study reviewed twenty-seven programs and projects, implemented during the period from 1988 to 1998, which consisted of twenty-four technical cooperation and grant aid projects in addition to three programs, namely the Acceptance of Trainees program, the Dispatch of Experts program and the Japan Overseas Cooperation Volunteers (JOCV) dispatch program. (Refer to Table 3)

3. Evaluation Process

(1) Dispatch of Evaluation Team

The evaluation team was dispatched twice. On the first visit, the team discussed the study with the Mexican Institute for International Cooperation (IMEXCI) and set up an evaluation framework by signing the minutes of discussion. On the second visit, the team divided itself into two groups; one for "needs identification sub-frame and aid policy sub-frame" and the other for "programs/projects evaluation sub-frame." Both groups conducted an on-site evaluation study and interviews.

1) First Dispatch (18 September 1999-01 October 1999)

Team Leader:
Nobuhiro KOYAMA, Development Specialist, JICA
Development Plan Analysis:
Yoshio KOYAMA, Development Specialist, JICA
Aid Policy Evaluation:
Shoko KIMURA, Evaluation Division, Economic Cooperation Bureau Ministry of Foreign Affairs
Evaluation Planning:
Akiko ABE, Office of Evaluation and Post Project Monitoring, Planning and Evaluation Department, JICA
Interpreter:
Mitsuo YOSHIDA, Japan International Cooperation

Center

2) Second Dispatch (3 February 2000-1 March 2000)

<Program Evaluation Team>

Team Leader:

Nobuhiro KOYAMA, Development Specialist, JICA

Program Evaluation 1:

Ryujiro SASAO, IC Net, Ltd.

Program Evaluation 2:

Satoru TAKAHASHI, IC Net, Ltd.

<Needs Identification and Aid Policy Team>

Evaluation Planning:

Aiichiro YAMAMOTO, Senior Assistant to the Managing Director, Office of Evaluation and Post Project Monitoring, Planning and Evaluation Department, JICA

Evaluation Planning:

Akiko ABE, Office of Evaluation and Post Project Monitoring, Planning and Evaluation Department, JICA

Interpreter:

Mitsuo YOSHIDA, Japan International Cooperation Center

(2) Joint Evaluation with IMEXCI

The evaluation team conducted the evaluation on site in collaboration with IMEXCI exchanging a wide rage of views.

IMEXCI

Mr. Abel Abarca Ayala, Director General, Science and Technology Cooperation Bureau

Ms. Cristina Ruiz Ruiz, Director, Cooperation Programs In-country Implementation Department, Science and Technology Cooperation Bureau

Mr. Efrain del Angel Ramirez, Chief, Cooperation Program Division, Science and Technology Cooperation Bureau

Ms. Judith Garcia Hernandez, Japanese Technical Cooperation Program Coordinator, Science and Technology Cooperation Bureau

Ms. Nora Elia Cabrera de la Cruz, Program Coordinator, Science and Technology Cooperation Bureau

(3) Study Schedule

September to October 1999:

Preliminary study, exchange of minutes of meetings concerning the joint evaluation with IMEXCI

October 1999 to January 2000:

Reporting of Inception paper, preparation in Japan

February to March 2000:

Full-scale study

July 2000:

Final report making reflecting comments from Mexico side

18 September 2000:

IMEXCI/JICA Joint Evaluation seminar in Mexico City

20 September 2000:

IMEXCI/JICA Joint Evaluation seminar in Veracruz City

4. Framework of Country-Program Evaluation

This evaluation study consisted of three sub-frames: (1) needs identification, (2) programs/projects evaluation and (3) aid policy as illustrated in Fig. 1.

(1) Needs Identification Sub-Frame

This sub-frame clarified the change in domestic and overseas development needs of Mexico by analyzing the changes to national policies and national development plans during the period from the former Salinas administration to the then Zedillo administration.

(2) Programs/Projects Evaluation Sub-Frame

The programs/projects evaluation sub-frame consisted of three types of evaluations: (a) individual project evaluations, (b) sector evaluations and aid scheme evaluations done by summarizing a number of individual project evaluations and (c) country-program evaluation as a comprehensive evaluation done by summarizing all the projects and programs.

Evaluated sectors and aid schemes were as follows:

Seven sectors:

mining and manufacturing industries, transportation, environment, education, disaster prevention, health, and agriculture.

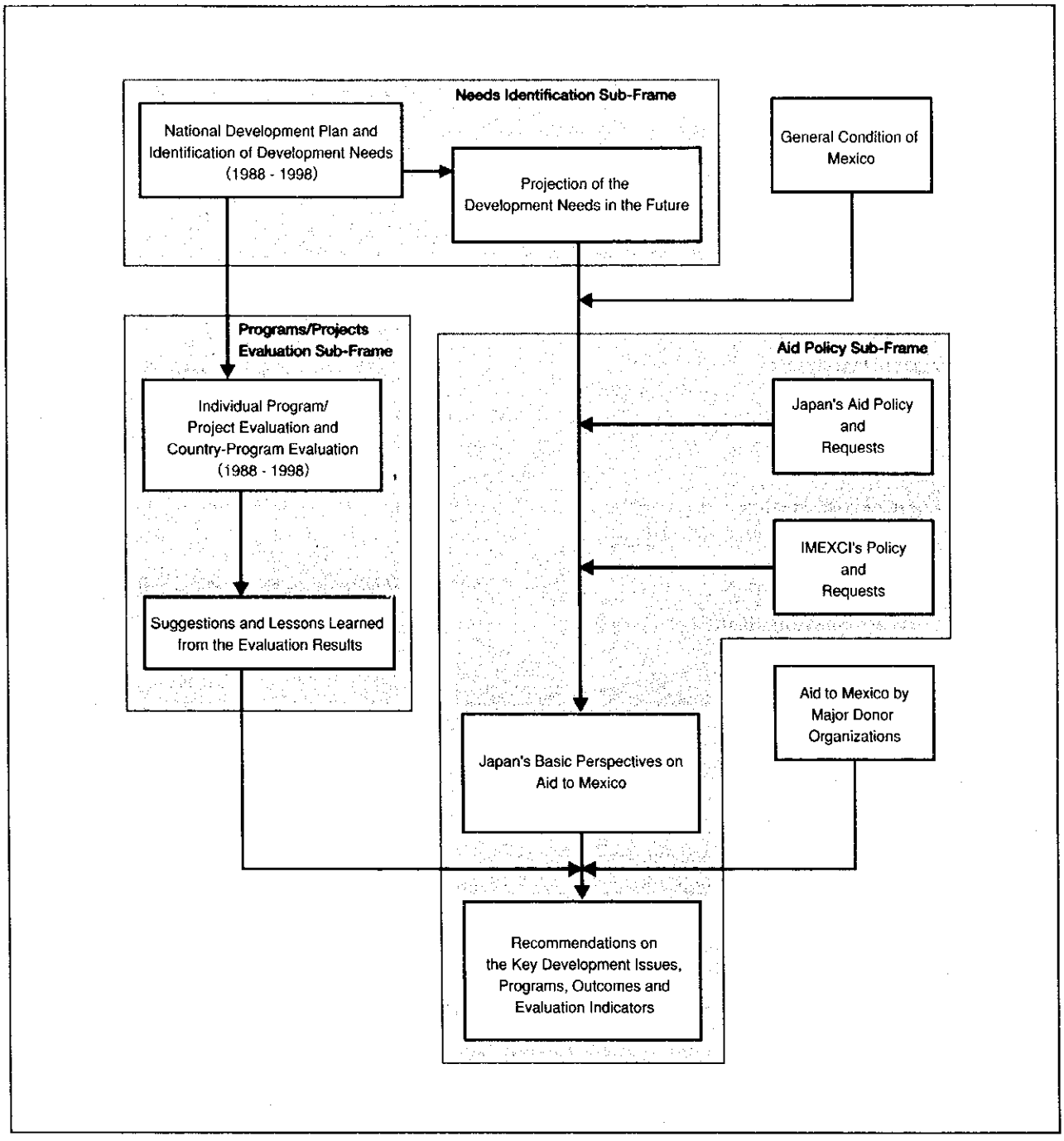
Seven aid schemes:

Project-type Technical Cooperation (including Experts Team Dispatch Program and Research Cooperation), Third-country Training, Grant Aid, Development Studies, Acceptance of Trainees, Dispatch of Experts, and Japan Overseas Cooperation Volunteers.

(3) Aid Policy Sub-Frame

The aid policy sub-frame identified, as the first step, the development issues to be addressed, based on the results of the needs identification sub-frame and the programs/projects evaluation sub-frame. It also taking into account the roles and functions of ODA in Mexico, Japan's basic aid policies, the Japanese Embassy's point of view, JICA's perspective on aid to Mexico, IMEXCI's expectations for Japan aid, and the main donors' policies of aid to Mexico. As the second step, in order to address the identified development issues of Mexico, the aid policy sub-frame studied and suggested "objectives",

Fig. 1 Framework of the Country-Program Evaluation Study



"programs for achieving objectives" and "indicators for output-oriented evaluations", with an eye to "results-oriented approach", taking account of the discussions in joint meetings with government officers of Mexico, academics, the business sector and staff of NGOs, and the results of the "Regional Disparities Survey" conducted by a local consultant.

5. Evaluation Results and Recommendations of Needs Identification Sub-Frame

In order to identify the development needs of Mexico, the needs identification sub-frame team carried out the following surveys: (a) review of the national development policies of the former Salinas administration (1989-1994) and the then Zedillo administration (1995-2000), (b) interviews with related government officers, (c) joint meetings with local governments, universities, economic circles and NGOs, and (d) site visits to cooperation programs/projects implemented in the past. The main

Table 1 National Development Plan of Mexico (Salinas Administration and Zedillo Administration)

Sector	Salinas Administration (1989-1994)	Zedillo Administration (1995-2000)
0. National Plan	0.1 National sovereignty and security 0.2 Promotion of Democratization 0.3 Economic recovery and stabilization of prices 0.4 Improvement of standard of living	0.1 Consolidation of national sovereignty 0.2 Improvement of legal systems 0.3 Promotion of democratization 0.4 Placing importance on social development 0.5 Promotion of economic growth
1. Economy	1.1 Continuation of economic stabilization 1.2 Expansion of financial resources for production investments 1.3 Promotion of economic modernization	1.1* Increase of domestic savings 1.2* Consolidation of the bases for economic stability and certainty 1.3 Effective use of resources for economic growth 1.4* Environmental policy for sustainability of natural resources 1.5 Implementation of sectoral policy for supporting general policy
2. Agriculture	2.1 Expansion of farm scale 2.2 Decentralization of agricultural administration 2.3* Defining of land tenure 2.4 Improvement of agricultural productivity 2.5 Expansion of land for agricultural production 2.6 Revision of agricultural finance and insurance policy 2.7 Promotion of agricultural investment 2.8* Revision of agricultural products prices	Increased incomes for farmers 2.1 Support for agricultural expansion and technological innovation 2.2* Improvement of local roads and storage facilities 2.3* Promotion of effective land reform 2.4 Introduction of new technology for research and development and private investments 2.5* Implementation of training that meet local needs 2.6 Reform of agricultural finance 2.7 Improvement of agricultural market information system 2.8 Improvement of quarantine system for realizing agricultural liberalization
3. Social Development	National Solidarity Program * For communities 3.1 Targets: indigenous and rural communities 3.2 Fields: nutrition, education, health, land and housing, and others. 3.3 Method: improvement of infrastructure	Education, Health and Nutrition Program (PROGRESA) Break the vicious cycle of poverty * For poor families 3.1 Nutrition component 3.2 Health component 3.3 Education component
4. Health	4.1 Qualitative improvement of health services 4.2 Placing importance on the poor people in rural and urban areas 4.3 Modernization of health system 4.4 Decentralization of health administration 4.5* Improvement of "Health Municipality Program"	Qualitative improvement of health services and expansion of service areas 4.1 Revision of health systems 4.2 Dissemination of basic package (vaccinations, nutrition and reproductive health) 4.3* Administrative decentralization to state and municipality governments 4.5 Improvement of social security systems 4.6 Placing importance on human resources development
5. Education	Modernization of education 5.1 Extension of school age 5.2 Qualitative improvement of education system 5.3 Decentralization of educational administration 5.4 Participation of local communities in education 5.5 Reform of educational administration and decentralization	Education for all youth and children 5.1 Sweeping reform of education in backward areas 5.2 Respect for indigenous culture and promotion of education for indigenous people 5.3* Improvement of school facilities and utilization of information technology 5.4* Retraining and qualitative improvement of teachers 5.6* Placing importance on strategic secondary education and higher education
6. Vocational Training	Emerge from technological backwardness and provide opportunities for training in industrialized countries 6.1 Placing importance on technical education meeting the needs of industrial circles 6.2 Technological integration of schools and enterprises	6.1 Education which satisfies vocational needs 6.2 Introduction of "Work Skill Certification (WSC)" 6.3 Linking technical education and local industries 6.4 Placing importance on information technology
7. Institutional Capacity Building	None in particular	7.1 Decentralization of science and technology activities 7.2 Integration of area study and education system 7.3 Activation of interzonal movement of labor force by WSC
8. Natural Environment	8.1 Rational management and utilization of ecosystem 8.2 Establishment of a national system for nature conservation areas 8.3 Enforcement of various measures for biodiversity 8.4 Administrative coordination for protection of natural environment 8.5 Research for protection and regeneration of extinct species	8.1 Ecotourism in nature conservation areas 8.2 Purification of contaminated water system 8.3* Forestry development consistent with forest conservation 8.4 Soil conservation and tight control consistent with income and production increase 8.5 Promotion of fishery industry consistent with conservation of fishery resources 8.6* Decentralization of environmental and natural resources conservation administration
9. Urban Environment	9.1* Introduction of methods for assessment and projection of urban environment 9.2 Collaboration of systems and sectors for urban environment assessment 9.3 Developing a list of extremely damaging activities 9.4 Identification of high risk areas through collaboration with central and local governments 9.5 Support for the assessment of environmental risk factors 9.6* Tightening of environmental regulations with incentives	9.1 Establishment of environment improvement programs for heavily polluted urban areas 9.2 Restoration of sites severely affected by dangerous waste 9.3 Purification of heavily contaminated water systems 9.4 Establishment and improvement of infrastructure for water resources supply 9.5 Establishment and improvement of water supply and drainage facilities 9.7 Utilization of trainings and financial assistance for environment 9.8 Decentralization of environmental administration
10. Central America & Caribbean Countries	10.1 Placing importance on Guatemala and Belize 10.2 Continue the support for the Central American countries upon request 10.3 Placing importance on cooperation with Colombia and Venezuela 10.4 Placing importance on Cuba with which it is closely related historically and culturally	10.1 Placing importance on friendship and cooperation with the Central American and the Caribbean countries 10.2 Placing importance on Guatemala 10.3 Strengthening of relations with Belize and the Caribbean countries 10.4 Support of the restoration of Cuba to the world community of nations

*: indicate major difference between both administration
reference: National Development Plan of both administration

policies of the development plans formulated by the two administrations are listed in Table 2. Sectoral trends of development needs during the ten years are as follows.

(1) Agriculture

While it is generally regarded that the succeeding administration will continue to support the program of "Alliance with Rural Communities" started by the Zedillo administration, this program did not necessarily bring benefits to all targeted farmers. Therefore, in the future, a macro policy which supports the development of agricultural industries-through agricultural products processing and agricultural maquiladora (export bonded processing areas)-will contribute to achieving the program's objectives. Assistance to poor agricultural areas will be emphasized in the future including components such as crop diversification, aid to smallholders and fostering of farmer's small enterprises.

(2) Mining and manufacturing industries

The national development plan (1995-2000) aims to create employment for one million people through economic growth. To attain this goal, it is necessary to attract foreign direct investment, expand enterprises and introduce funds and technologies. In addition, the nurturing and enhancement of a young labor force is also very important, which will lead to high demand for education and training. Also, "industrial cluster promotion" is planned to create a sophisticated industrial structure. It is conceptualized to place large export enterprises at the top of the industrial cluster, and have them supported by subcontractors. The Government is to provide backup to the industries by offering services pertinent to human resources development, management guidance, finance, etc. For this purpose, establishment of "Regional Centers for Improving Competitiveness"started in 1997, with plans for one in every state. By strengthening these centers, industries in less developed regions are expected to be strengthened. While it is important to provide assistance to these activities, effective commitment of the public sector to the fields of mining and manufacturing must be further studied taking into account the fact that the private sector is playing significant roles in this field.

(3) Education

The Minister of Public Education submitted "Education Policy for 2000" to the President in 2000. There are three focal points as follows: (a) overall qualitative improvement of education, (b) enhancement of higher education such as quality improvement of bachelor's-degree level education and matching the curriculum of postgraduate education to social needs, and (c) introduction of "qualification systems" aiming at qualitative improvement of technology education. Policies for technology education are (a) to improve the quality of technology education and (b) to meet the needs of enterprises and to strengthen associations with enterprises. As decentralization of education is proceeding, local governments are expected to play an important role in technology education, and capacity building of local governments consequently becomes a significant and highly required issue.

(4) Health

Pillars of the health policy of the Zedillo administration are as follows:

1) Modernization of the health sector

Aiming at qualitative improvement and high performance of health services, the efficiency of the health administration is intended to be improved by providing financial incentives to service providers. The supply and demand of health services is also expected to be better balanced.

2) Emphasis on cost-effectiveness

Giving priority to rendering assistance to the poor regions, where the indigenous people live, education and nutrition in these areas are expected to be improved.

3) Decentralization of health services

By the year 2000, Sixty percent of the national budget is targeted to the social sectors. Out of this 60 percent, the percentage allocated to local governments is expected to be raised to 80 percent.

4) Reform of health organizations

Aiming to establish a social insurance system, coordination and integration between the Ministry of Health and IMSS/ISSTE (Social Security Institute /State Workers' Social Security Institute) will be promoted. (Since this target has not been fully attained by the Zedillo administration, this policy is supposed to be taken over by the succeeding administration.)

The main objective of the health sector is to extend health services to the poor regions where the majority of indigenous people live, and high priority is attached to the states of Chiapas, Oaxaca, Hidalgo, Guerrero, Mexico, Veracruz, Nayarit and Chihuahua. Concerning ODA, while the central government will serve a liaison function, the state governments will be the main bodies to implement and manage ODA projects. Therefore, in the health sector, as well as in the other sectors, building capacity of the local governments becomes a significant issue.

(5) Dire Poverty Alleviation Measures (PROGRESA or new poverty alleviation programs of the new government)

According to the comments of the PROGRESA national coordinator, PROGRESA, which aims to break the "vicious circle of poverty," expanded its programs to the poorest rural areas, and in the future, the target of the program will be on urban poverty. Since urban poverty is extremely complicated with many aspects to consider, small-scale pilot studies are preferable in order to find feasible poverty alleviation measures. PROGRESA has a high reputation among the people concerned, such as politicians, local governments, NGOs and the private sector, and its budget has been increased. It is thus anticipated that the succeeding administration will continue to support PROGRESA. One important objective that remains to be realized is for the poorest people, whose basic human needs have been satisfied through the above mentioned programs, to find specific ways to support themselves independently through the various activities offered. Concerning the aid for poverty alleviation, it is necessary to consider it in conjunction with the dire poverty alleviation programs of the Mexican Government.

(6) Poverty Alleviation Measures (SEDESOL)

The goal of the SEDESOL programs is to establish mechanisms that enable poor local communities to be independent in the market economy. Fourteen SEDESOL programs are implemented separately, but not integrated to assist the independence of the communities efficiently. It is therefore necessary to effectively link the programs. In addition, many of the SEDESOL programs are large projects beyond the capability of the communities, and hence they do not necessarily meet the needs of communities nor secure the sustainability of projects after their completion. After the SEDESOL programs are terminated, the communities are supposed to continue running the projects independently with their self-help efforts. One of the major issues remaining is how to foster the self-help efforts of communities. Concerning the aid for poverty alleviation, the same as PROGRESA, it is necessary to consider it in conjunction with the Mexican government's poverty alleviation programs.

(7) Environment

There has been a growing sentiment for environmental protection after the Zedillo administration took over the government, and a number of environmental preservation systems from global perspectives were established, such as the forest programs of PRODEPLAN, PRODEFOR and PRONALE[1]. The "Environment Balance General Law" was enacted in 1996, the Forest Law and its related regulations were legislated in 1997 and the Environment Law was amended in the same year. Recently, land conversion from forest to farmland has progressed rapidly in southern regions, and the application of the Zoning Law and the Environment Law, consequently, became difficult. The significance of forest preservation is widely recognized and an extensive agreement has been formulated inside and outside of the country. Forest preservation will be continued and further intensified, and hence the country is expected to establish appropriate management systems for the natural environment preservation including biological diversity preservation in the valuable ecosystems such as swamp land and tropical rainforests. In addition, with the continual population increase, the environment of metropolitan areas is increasingly degraded. Therefore, it is critical to address urban issues such as waste management. Concerning aid for the environment, the above stated issues must be taken into account.

(8) Decentralization

The budget allocation ratio from the central government to the local governments is planned to be increased to about 60 percent by the year 2000, specifically to 70 percent in the education sector, to 54 percent in the health sector and to 36 percent for poverty alleviation. Although the 1990s was an epoch of decentralization of public administration, there were large disparities in administrative capabilities of the local governments. The capability of poor southern states, where economic development is stagnated, is still very low. The improvement of their capability, therefore, is recognized as an important issue. Similarly, since the decentralization process has been further extended from the state governments to the municipalities, the enhancement of administrative capability of the municipalities is also becoming an important issue.

(9) Foreign aid

In the Zedillo administration, foreign aid to the Central American and the Caribbean countries has been extended focusing on Guatemala and Belize, and the IMEXCI was established in 1998 to oversee Mexico's aid. The Mexican foreign aid budget is about 1.5 to 1.6 million yen: 0.9 million yen for regional programs and 0.6

[1] PRODEPLAN: Introducing the concept of commercial forests (for pulpwood, timber, etc.), the government subsidizes 65% of forestation cost.
PRODEFOR: Forest Development Program. For the forest development done by forest owners such as Indians, the government provides subsidies.
PRONALE: National Forest Program. The program to extend forestation areas from the metropolitan area to rural areas.

to 0.7 million yen for bilateral programs. The following improvements are considered necessary for Mexican foreign aid: (a) to establish an approval system for aid requests, (b) to review the scale of aid programs from the perspective of effectiveness, (c) to reinforce the aid system to be able to respond to middle-term to long-term aid requests (a three-month term is the longest term of the present system), (d) to allocate annual aid funds effectively and systematically, and (e) to make a public appeal to support foreign aid. Enhancing IMEXCI's capacity is vital not only to realize these improvements, but also to achieve further ripple effects of the Japanese South-south Cooperation conducted through Mexico.

6. Evaluation Results and Lessons Learned and Recommendations of Programs/Projects Evaluation Sub-Frame

Firstly, the programs/projects evaluation sub-frame evaluated twenty-seven projects independently, which

Table 2 Classification of Evaluated Programs/Projects

Sector	Aid Scheme	Name of Program/Project
Agriculture	Project-type Technical Cooperation	Agricultural Development in Mining Towns in the Arid Areas
	Expert Team Dispatch	Basic Technology of Sericulture
	Research Cooperation	Efficient Use of Water for Agricultural Purposes
	Development Study	Master Plan Study on the Integrated Agriculture, Livestock and Rural Development in the Coast of Jalisco
	Grant Aid	Fishery Research Center
Mining and Manufacturing Industry	Project-type Technical Cooperation	Mineral Processing Plant Operation Technology
	Development Study	Modernization Plan of Beneficiation Plants of CFM
	Development Study	Rehabilitation of Mazatepec Hydroelectric Power Station
	Development Study	Master Plan for the Promotion of Supporting Industries
	Development Study	Mineral Exploration in Campo Seco Area
	Third-country Training	Digital Transmission Engineering
	Third-country Training	Mineral Processing and Analytical Technology of Minerals
Education	Project-type Technical Cooperation	Educational Television Training Center
Health	Project-type Technical Cooperation	Family Planning and Maternal and Child Health
Transportation	Development Study	Pacific Harbor Improvement Plan
	Development Study	Formulation of Investment Strategies for Tourism Promotion
	Third-country Training	Port Hydraulics Engineering
Environment	Development Study	Air Pollution Control Plan in the Federal District
	Development Study	Air Pollution Plan of Stationary Sources in the Metropolitan Area of the City of Mexico
	Development Study	Environmental Impact of Mining Activities and Countermeasures
	Development Study	Feasibility Study of Emulsion Combustion of Mexican Heavy Oil
	Development Study	Wastewater Treatment in the Federal District of Mexico
Disaster Prevention	Project-type Technical Cooperation	Earthquake Disaster Prevention
	Grant Aid	Earthquake Disaster Prevention Center
Others	Dispatch of Individual Expert	54 individual long-term experts were dispatched from FY 1988 through FY 1997 (year of return)
	Japan Overseas Cooperation Volunteers	23 volunteers were dispatched from 1994 (1st team) to 1996 (3rd team)
	Acceptance of Trainees	

Table 3 Standard for Five-point Rating Scale for Macro Evaluation Items of Project-type Technical Cooperation

Macro Evaluation Item	5	4	3	2	1
1. Effectiveness	Achievement rate of the expected objective is:				
	more than 100 %	more than 90%	more than 80%	more than 60%	less than 60%
2. Relevance	Summarizing the following four assessments, i.e. 1) conformity to needs of Mexico, 2) appropriateness of program/project planning, 3) participation of stakeholders in planning, and 4) identification of external factors necessary to link project purpose with overall goal, relevance is evaluated to be:				
	extremely high	high	acceptable	low	extremely low
3. Efficiency	From the perspective of the ratio of outputs to inputs, inputs are:				
	extremely efficiently utilized in general	efficiently utilized in general	adequately utilized without too much waste in general	slightly wasted in general	considerably wasted in general
4. Impact	"Overall Goal" in the PDM and/or related impact is:				
	greatly observed	considerably observed	observed to some extent	not sufficiently observed	not observed at all
5. Sustainability	In terms of organization, finance and technology, the project implementing organization is:				
	sustainable and developing	sustainable	sustainable to some extent	lacking sustainability	unsustainable

were listed in Table 2. Second, based on the results of these "individual project evaluations," the "aid scheme evaluation" was conducted by summarizing several projects under the categories of aid schemes such as development study, Project-type Technical Cooperation and so on. The "sector evaluation" was made at the same time by uniting a number of projects under the sector-based categories such as mining and manufacturing industries, agricultural and so forth. Finally, based on the results of the aid scheme evaluation and the sector evaluation, the "country-program evaluation" was formulated.

The evaluation employed five evaluation criteria following the "DAC criteria for evaluating development assistance." Each criterion was subdivided into middle-evaluation item and micro-evaluation item. By grading each micro-evaluation item and summing up these grades, the average grade of each middle-evaluation item and macro-evaluation item (or five evaluation criteria) was calculated.

For grading the five evaluation criteria for the "aid scheme evaluation," a five-point scale was employed as follows: 5-extremely good, 4-good, 3-adequate, 2-poor, 1-extremely poor. Table 3 presents the "Standard for Five-point Rating Scale for Macro Evaluation Items of Project-type Technical Cooperation" as an example.

(1) Aid Scheme Evaluation

The aid scheme evaluation was conducted based on the results of the individual project evaluations. The projects were classified into seven aid schemes, and the grades of the five evaluation criteria for each project were averaged to determine the result for the aid scheme evaluation. The results are shown in Table 4.

The average grade of the five evaluation criteria for all the programs/projects are relatively high at 3.8. The average for "impact", which is the final outcome of an aid program/project, is also high at 3.6. Looking at the grades for the individual aid schemes, however, reveals significant differences. The average of the five evaluation criteria for Third-country Training, grant aid, Acceptance of Trainees and Dispatch of Experts is more than 3.7, and their average for "impact" is also high at 3.9. But the average "impact" of Project-type Technical Cooperation

Table 4 Results of Aid Scheme Evaluation

Aid Scheme	Effectiveness	Relevance	Efficiency	Impact	Sustainability	Average	Survey Method *4)
Project-type Technical Cooperation *1)	3.9	2.8	2.8	3.1	3.8	3.3	A
Third-country Training	3.7	4.2	3.5	4.7	4.4	4.1	B
Grant Aid *2)	4.5	4.0	4.0	4.0	4.3	4.2	A
Development Study	3.9	3.7	3.7	2.1	3.2 *3)	3.3	A
Acceptance of Trainees	3.8	4.0	4.2	3.9		4.0	B
Dispatch of Experts	3.4	4.0	3.4	4.2	3.5 *3)	3.7	B
Japan Overseas Cooperation Volunteers	3.5	3.5	3.3	3.2		3.4	B
Total	3.8	3.7	3.6	3.6	4.2	3.8	

Note *1) Category of Project-type Technical Cooperation includes experts team dispatch and Research Cooperation.
*2) Evaluation results of one of the two grant aid programs are reflected here.
*3) Development study and Dispatch of Experts are not included in the calculation of "average" because these two aid schemes scarcely affect the sustainability of recipient country's implementing organizations.
*4) Survey Method: A: Interviews and questionnaires to both the Japanese side and the Mexican side. B: No interviews but questionnaires to either the Japanese side or the Mexican side.

Table 5 Results of Sector Evaluation

Sector	Five Evaluation Criteria					Average (number in parentheses is rank by sector)
	Effectiveness	Relevance	Efficiency	Impact	Sustainability	
1. Agriculture	3.3	2.8	3.2	2.5	3.3	3.0 (9)
2. Mining Industry	3.5	3.7	3.4	2.4	3.5	3.3 (6)
3. Education	4.1	3.5	3.7	4.0	4.2	3.9 (3)
4. Health	3.3	3.6	3.4	3.7	3.8	3.6 (4)
5. Transportation	4.1	4.2	3.9	4.4	4.8	4.3 (1)
6. Environment	3.5	4.0	3.6	1.9	na	3.2 (7)
7. Disaster Prevention	3.8	4.0	3.7	4.0	4.3	4.0 (2)
8. Public Administration	3.5	3.3	3.5	3.5		3.5 (5)
9. Others	3.3	3.0	3.0	2.9	3.4	3.1 (8)
Average	3.6	3.5	3.5	3.3	3.9	3.6

and Development Studies, whose project inputs are relatively large, are low at 3.1 and 2.1, respectively, and they lowered the overall average. Concerning Japan Overseas Cooperation Volunteers, the average grade of the five evaluation criteria is 3.4 and the grade for "impact" is 3.2. These are somewhat lower compared with the others. This is mainly due to: (a) the mismatch of expertise of volunteers and their assigned posts and (b) recipient organizations' lack of knowledge about the system and activities of JOCV.

The "impact" for Project-type Technical Cooperation is low because the "relevance of project planning" is low. The main reason for the low relevance is that the Project Formulation Studies were limited in scope. The low "Impact" of Development Studies indicates that the projects proposed by the Development Studies were not implemented mainly due to the political and financial situations of Mexico, such as the change of governments, structural reforms and setback by the financial crisis.

A suggestion, which can be deduced from the results of the aid scheme evaluation, is to increase the total "impact" by combining a scheme of high impact with a scheme of low impact. Except for Third-country Training, which brings benefits to countries other than Mexico, low impact schemes such as Project-type Technical Cooperation and Development Studies can be followed up by high Impact schemes such as grant aid, Acceptance of Trainees or Dispatch of Experts. After finishing a Project-type Technical Cooperation or a development study, an Acceptance of Trainees or a Dispatch of Experts can follow it up. Further, in order to increase outcomes of Japan Overseas Cooperation Volunteers (JOCV), the combination of JOCV and Dispatch of Experts can be considered.

(2) Sector Evaluation

The sector evaluation, as the aid scheme evaluation, was conducted based on the results of the individual project evaluations. The total of 27 programs/projects (twenty-four projects and three programs of Acceptance of Trainees, Dispatch of Experts and Japan Overseas Cooperation Volunteers) were divided into seven sectors, (i.e. agriculture, mining and manufacturing industries, education, health, transportation, environment and disaster prevention) and were evaluated. The information for the evaluation was collected through interviews and

Table 6 Overall Evaluation (Country-program Evaluation)

Five evaluation criteria / Type of evaluation	Effectiveness	Relevance	Efficiency	Impact	Sustainability	Average
Aid scheme evaluation	3.8	3.7	3.6	3.6	4.2	3.8
Sector evaluation	3.6	3.5	3.5	3.3	3.9	3.6
Overall evaluation	3.70	3.60	3.55	3.45	4.05	3.70

Table 7 Aid Scheme-Sector Matrix

	A.Project-type Technical Cooperation	B.Third-country Training	C.Grant Aid	D.Development Study	E. Acceptance of Trainees	F.Dispatch of Experts	G.Japan Overseas Cooperation Volunteers
1.Agriculture	-Agricultural Development in Arid Areas -Technology of Sericulture -Water for Agricultural Purposes		-Fishery Research Center	-Integrated Agriculture in Jalisco			
2.Mining and Manufacturing Industries	-Mineral Processing Plant	-Digital Transmission -Mineral Processing		-Beneficiation Plants of CFM -Mazatepec Hydroelectric -Supporting Industries -Mineral Exploration			
3.Education	-Television Training Center						
4.Health	-Family Planning						
5.Transportation		-Port Hydraulics		-Pacific Harbor -Tourism Promotion			
6.Environment				-Air Pollution Control Plan -Stationary Sources -Mining Activities -Emulsion Combustion -Wastewater Treatment			
7.Disaster Prevention	-Earthquake Disaster Prevention		-Earthquake Disaster Prevention Center				

questionnaires. Because the number of interviews was limited to eleven project and the recovery rate of questionnaires was low, some sectors had limited information causing the evaluation to be incomplete.

Table 5 shows the results of the sector evaluation. The average grade of all the five evaluation criteria of all the sectors was relatively high at 3.6. By sector, transportation, disaster prevention and education were highly evaluated, while agriculture, environment and mining and manufacturing industries were evaluated somewhat low. Regarding the transportation sector, which got the highest grade, all the five criteria were highly graded, and its "sustainability" and "impact" were particularly high. The agricultural sector, on the other hand, was given the lowest grade because its "relevance" of project planning was lowly evaluated.

From a cross-sectoral perspective, the "impact" of the five evaluation criteria turned out to be low grade. For improving the grade of "impact," it is important to strengthen the "development issue basis approach" from a cross-sectoral perspective, rather than try to improve the "Impact" of each sector independently. This approach is along the line of JICA's direction; hence, the poverty alleviation in rural areas, for example, would be a significant development issue in the future.

(3) Overall Evaluation (Country-Program Evaluation)

The results of the aid scheme evaluation and the sector evaluation were reviewed in section (1) and (2). Based on these results, this section evaluates Japanese aid to Mexico as a whole. Table 6 shows the results and the average grades of the aid scheme evaluation and the sector evaluation.

The overall grade by the aid scheme evaluation is 3.8, and the sector evaluation is graded 3.6, producing an average grade of 3.7. The average grade of 3.7 for "effectiveness", for example, stands between "4: more than 90 percent of the project purpose was achieved" and "3: more than 80 percent of the project purpose was achieved" only slightly closer to 4. The average grade of "impact" of 3.45 stands between "4: considerable impact was made" and "3: impact was made to some extent" only slightly closer to 3, and this can be judged to be "generally satisfactory."

The grades of the evaluation results are within the range from the lowest marked "impact" of 3.45 to the highest marked "sustainability" of 4.05. There is no particular criterion getting any lower grade

For the above, the aid scheme evaluation on seven types of aid schemes and the sector evaluation on seven sectors were carried out, and then the averages of those grades were calculated to make the overall evaluation (country-program evaluation). The distribution of the programs/projects in terms of the aid schemes and the sectors is illustrated in the matrix of Table 7. The three programs of Acceptance of Trainees, Dispatch of Experts and Japan Overseas Cooperation Volunteers (JOCV) are indicated here in "gray", since they are not implemented according to sector. Overall, aid schemes were extremely polarized by sector during the ten-year period from 1988 to 1998. This does not include the Third-country Training programs, which intend to bring benefits to countries other than Mexico. Only the agricultural sector (where Project-type Technical Cooperation was given more weight) and the mining and manufacturing industries sector (where Development Studies were more common) received more than one type of aid scheme. In the education and health sectors, only Project-type Technical Cooperation projects were implemented, and in the transportation and environment sectors, only Development Studies were carried out.

Since Mexico is an upper-middle-income country, the number of programs/projects is limited; it is, hence, understandable that selections of aid schemes tend to be monotonous in the same sector. But it is still very difficult to find any substantial relationships among the 14 programs/projects shown in Table 7. This is because JICA's projects/programs have been formulated by the different development priorities put forth by different Mexican government's sector-based implementing organizations, respectively. However, in order to make the best use of Japan's limited aid to Mexico and gain high grades in the overall evaluation, the "development issue basis approach" must be enhanced. In this approach, it is desirable to concentrate aid resources on the priority issues examined from an appropriate sector-mixed and/or scheme-mixed perspective.

(4) Improvement of Overall Evaluation (Country-Program Evaluation)

The overall evaluation results were obtained by considering the results of the aid scheme evaluation and the sector evaluation, based on the individual project evaluations, which were carried out using the five standard evaluation criteria. Thus, this trial country-program evaluation is also based on the same five criteria. To further improve a country-program evaluation, besides the gathering of ample information, the following should be considered.

1) Setting and weighting of subdivided evaluation items

The following points must be further studied: (a) appropriateness of subdivided evaluation items' division into macro, middle and micro levels. (The discussion about middle and micro evaluation items is omitted here.), (b) appropriateness of the evaluation

standard for five-point rating scale from 1 to 5, and (c) appropriateness of the assumption that all evaluation items at all levels (macro, middle and micro) have equal weight. In this evaluation study, while the evaluation team tried its best to make (a) and (b) appropriate, the reasonable weighting standards for (c) could not be fixed. Therefore, the grades were calculated based on the assumption that all of the evaluation items have equal weight. For example, an evaluation item asking "Is it relevant to the objectives of the policy?" and an evaluation item asking "Is the number of counterparts to one expert adequate?" obviously have different weights and require different weighting. However, such quantification is difficult.

2) Weighting according to the inputs (aid resources)

The twenty-four projects and three programs evaluated in this evaluation study were also treated equally. However, in order to implement Japanese aid to Mexico effectively, it is important to allocate aid resources according to the needs of a recipient country. Highly prioritized programs/projects to which significant aid resources are allocated must produce larger outcomes, while programs/ projects allocated modest inputs would be expected to produce outcomes accordingly. From this perspective, it can be concluded that overall evaluation results would be more informative if a program/project is weighted according to the amount of inputs. Besides the setting of quantitative indicators for evaluation items, such weighting will be necessary as well to improve overall evaluations.

3) Reflection of external conditions of a program /project

This evaluation study did not specifically analyze the influences of the change of external conditions during the past ten years on the projects. (The external conditions implied here are the economic crisis and accompanying financial constraints, various structural reforms, etc., which were not controllable by the programs/projects.) But the evaluation was conducted with the understanding that the change of external conditions was reflected in the evaluation of five criteria of individual program/projects. From the perspective of which project/program should be completed to its original purpose even if the external conditions changed, it is desirable that the evaluation describes how the external condition influences the projects/programs. This is one of the issues to be solved pertinent to the country-program evaluation. In the case of Mexico, it is particularly important to clarify how external conditions influenced the implementation of programs/projects proposed by the Development Studies.

4) Defining of aid programs/projects through policy discussions

While this is a point somewhat different in character from the discussion above, it is better to touch on the subject here since this is a significant factor to improve the country-program evaluation. In the annual policy discussion in 1990, six fields (water issues, environment, biotechnology, telecommunications and information, new materials technology and poverty alleviation) were identified as priorities. Before discussing which subject should be approached in these six fields respectively, the discussion moved on to individual programs/projects on aid scheme basis such as Project-type Technical Cooperation, development study, Dispatch of Experts and Acceptance of Trainees. In the following policy discussion in 1996, after the Japanese side presented its basic policy on economic cooperation with Mexico and two prioritized fields ("environment" and "human resources development for industrial development and rural development"), similar to the previous meeting, the discussion moved on to individual programs/projects on aid scheme basis, without having specific discussions on respective prioritized fields. In both discussions, prioritized fields and programs/projects on aid scheme basis were not directly associated. Nevertheless this association is necessary, and it is desirable to conduct discussions following the line of <aid policy>-<prioritized themes>-<strategies>-<objectives of outcome>-<programs/projects>.

It might be difficult to hold discussions in such a way that the attendance from the Mexican represents to sector-based organizations. However, the Mexican government intends to establish the "Mexican International Cooperation System", which includes members representing international cooperation from governmental agencies, private organizations and citizens' groups, and the situation can be expected to be improved. It is desirable that the policy discussion be further improved by efforts of both Mexico and Japan.

7. Evaluation Results and Lessons Learned and Recommendations of Aid Policy Sub-Frame

The evaluation results of the two sub-frames, which constituted the framework of this evaluation study, namely "needs identification sub-frame" and "programs/ projects evaluation sub-frame" were examined in sections 5 and 6, respectively. Based on the results of these two sub-frames, the basic policy of aid to Mexico is examined in this section. The main items to be reviewed here are

listed in Fig. 2. They include (a) the roles of ODA in Mexico, (b) the development needs of Mexico, (c) Japan's basic aid policy, (d) Japanese Embassy's point of view, (e) JICA's perspective on aid to Mexico, (f) IMEXCI's expectations for Japanese aid and (g) main donors' policies of aid to Mexico.

(1) Basic Concept of Aid to Mexico

Mexico is an upper-middle-income country having a GNP per capita of nearly US$4,000. The amount of ODA inflow comprises only 0.03 percent of the total capital inflow from foreign countries. It thus appears that the roles of ODA are very much limited in the total scale of economy. However, on the other hand, regional disparities are large and the poorest areas and poor areas are mainly in the southern regions. It is, therefore, necessary to extend Japanese aid to those areas that benefit the least from private sector's economic activities

Fig. 2 Items to be Considered when Reviewing Japan's Aid Policy to Mexico

and government programs. Poverty alleviation particularly in rural areas must be emphasized, since this not only responds to the needs and expectations of the Mexican government, but also corresponds with the concern of related Japanese organizations including MOFA and the aid policies of main donors.

While it is anticipated that the new government would continues reducing the poorest and poor population in one way or another as one of its major policies, the important thing is for the poor people who are supported by the assistance to stand on their own legs after the assistance terminates. To this end, in addition to fulfilling basic needs such as education and health, it is necessary to establish stable bases for the independence of people in rural areas, such as agricultural development and promotion of small and medium enterprises. Concerning agricultural development, recovery and preservation of natural resources is indispensable for long-term sustainable agriculture, and from this perspective environment improvement is vital.

Further, "decentralization of public administration" has recently been accelerated in Mexico, and poverty is particularly serious in rural areas; therefore, the local governments are required to address the issue of poverty. Thus, the institutional capacity building and human resources development of local governments is a requirement. In areas where economic development has progressed, the institutional capacity of the local governments is generally high, while in areas where economic development is stagnated and poverty is serious, the institutional capacity of the local governments remains low. Capacity building is essential for local governments to be able to properly deal with poverty.

On the other hand, Mexico is not only a recipient country of ODA, but also a donor country, which had started extending ODA mainly to the Central American and the Caribbean countries. As a donor country, Mexico is internationally expected to contribute to the development and stabilization of those areas. It is therefore highly significant to help Mexico to be a donor country. At the same time, to support Mexico as a donor country can lead to increased its efficiency and effectiveness of Japanese aid through South-south Cooperation. Furthermore, in reviewing aid to Mexico, the long-lasting friendly relations between the two countries fostered through Japanese emigration to Mexico must be taken into account. Considering the fact that as time passes since the time emigration, the less intimate relations become with Japanese migrant communities, it is vital to extend the aid from the perspective of maintaining and promoting the friendly relations between the two countries.

The followings are six prioritized development issues derived from the review of the evaluation results stated above. Numbers 1) to 4) are issues pertinent to the aid to less developed fields, and 5) and 6) are development issues from a different point of view.

1) Correction of regional disparities through poverty alleviation.
2) Fostering and promotion of agricultural products processing industries and small enterprises in rural areas.
3) Recovery and preservation of natural resources in rural areas and improvement of living conditions in urban areas.
4) Institutional capacity building for decentralization of public administration and for rural development.
5) Promotion of Mexican aid to the Central American and Caribbean countries.
6) Strengthening of friendly relations between Japan and Mexico.

Fig.2 illustrates the areas to which aid should be extended and how the aid should be implemented. Today's approach for addressing development issues is "outcome-oriented" and this approach is emphasized by the Japanese Embassy, JICA and IMEXCI. For addressing development issues efficiently and effectively, it is essential to mobilize all people concerned and all resources available in a cross-sectoral manner. In this sense, the "multi-sectoral approach" and the "comprehensive approach" feed into the outcome-oriented approach. When an "outcome-oriented approach" is practiced, in order to measure the contributions to the development issues, it is essential to fix indicators to measure achievement of objectives and to conduct continuous monitoring of those indicators.

Since this outcome-oriented approach is new for Japan it will be vital to tackle the issues in stages by trial and error for producing adequate outcomes. If such trials were practiced in a low-income country, the trial and error method would be chaotic and many factors would need to be taken into account. But in the case of Mexico, which is far down the road to development, it is possible to focus upon specific "development issues to be addressed." Therefore, Mexico can be one of the most suitable countries to apply the "outcome-oriented approach." By creating a prototype upon the model of Mexico, it is anticipated to expand its application to other developing countries.

(2) Aid Plan for Mexico

Table 8 summarizes the aid plan to Mexico according to the six development issues to be addressed. It presents evaluating indicators to monitor "objectives", "program", "expected out comes", and "the achievement level of out

comes". "Green shading" highlights programs that are applied to specific areas for poverty alleviation. They include the following four development issues and six programs.

Development Issue 1: Correction of regional disparities through poverty alleviation.

Program 1: To support the dire poverty alleviation measures of PROGRESA .

Program 2: To support the poverty alleviation measures of SEDESOL.

Development Issue 2: Fostering and promotion of agricultural products processing industries and small enterprises in rural areas.

Program 1: To support the promotion of rural industries

Table 8 Objectives, Strategies, Expected Outcomes and Evaluation Indicators of the "6 Development Issues to be Addressed"

Development Issue 1 : Correction of regional disparities through poverty alleviation

Objective : To aim at the sustainable improvement of the standard of living of the poor people in the poor states and municipalities with high marginality indexes.

Programs:	(1) To support the dire poverty alleviation measures	(2) To support the poverty alleviation measures of SEDESOL	(3) To improve maternal and child health through the diffusion of maternity passbooks
Expected Outcomes:	*Economic independence of service recipients and ex-service recipients	*Sustainable management of the programs conducted by SEDESOL	*Decrease of the maternal and infant mortality rates
Evaluation Indicators :	・Caloric intake ・School attendance rates ・Earned income	・Number of trainees ・Number of participants to the programs ・Management indexes	・Number of out patients ・Rate of traditional deliveries

Development Issue 2 : Fostering and promotion of agricultural products processing industries and small enterprises in rural areas

Objective : To aim at the increase of work opportunities through the fostering and promotion of industries in the poor states and municipalities with high marginality indexes.

Programs:	(1) To support the promotion of rural industries in conjunction with Development Issue 1	(2) To support the promotion of supporting industries	(3) To support vocational training for youth
Expected Outcomes:	*Improvement of local governments' capacity for planning industrial promotion	*Capacity improvement of Regional Center for Improving Competitiveness	*Decrease of the unemployment rate of urban youth
Evaluation Indicators :	・Number of training courses ・Number of participants ・Achievement level	・Number of training courses ・Number of consultations conducted	・Number of training courses ・Number of participants ・Employment rate

Development Issue 3 : Recovery and preservation of natural resources in rural areas and improvement of living environment in urban areas

Objective : To aim at the recovery and preservation of natural resources particularly forests and water resources. In addition, in big cities, to aim at the improvement of the living environment particularly concerning water supply and drainage and waste material treatment.

Programs:	(1) To support the recovery of natural resources in conjunction with Development Issue 1	(2) To support the enhancement of institutional capacity for environmental administration	(3) To support the improvement of the living environment in urban areas
Expected Outcomes:	*Sustainable deforestation prevention and recovery	*Improvement of the local governments' capacity for environmental planning and management	*Improvement of the environment which largely affects the poor people in urban areas
Evaluation Indicators :	・Forest area ・Productivity of farm land ・Number of participants in extension programs	・Number of extension programs ・Established systems ・Number of participants	・Number of environmental improvement measures implemented ・Rate of disease and mortality

Development Issue 4 : Strengthening of institutional capacity for decentralization of public administration and rural development

Objective : To aim at the extension of various self-help activities in rural areas through institutional capacity building and human resources development involving those organizations and people who will be the driving force of decentralization and rural development.

Programs:	(1) To support human resources development for local public administration	(2) To support the qualitative improvement of higher education in rural areas
Expected Outcomes:	*Improvement of local governments' capacity for planning and implementation	*Improvement of the capacity for the research and extension which satisfy development needs
Evaluation Indicators :	・Number of training courses ・Number of participants ・Achievement level	・Number of extension programs ・Number of beneficiaries ・Benefits

Development Issue 5 : Promotion of Mexican aid extension mainly to the Central American and the Caribbean countries

Objective : To aim to accelerate Mexico to be a donor country by improving the Effectiveness of Mexican aid to the Central American and the Caribbean countries through the transfer of aid technology through the South-south Cooperation

Programs:	(1) To support the improvement of the effectiveness of Mexican aid	(2) To support the expansion and sustainability of South-south Cooperation
Expected Outcomes:	*Capacity building in planning, implementation and evaluation	*Improvement of the Sustainability of the Third-country Training programs
Evaluation Indicators :	・Information on needs ・Program selection system ・Monitoring	・Basic policy ・South-south Cooperation discussion ・Monitoring

Development Issue 6 : Strengthening of friendly relations between Japan and Mexico

Objective : To aim at further strengthening of the friendly relations between Japan and Mexico through the implementation of Development Issue 1 through 5 and some original programs

Programs:	(1) To improve the public relations of Japan aid	(2) To reinforce the personnel for international exchanges between Japan and Mexico
Expected Outcomes:	*Improvement of Mexican citizens' understanding of Japanese aid	*Later generations of Japanese-Mexicans will improve understanding of Japan
Evaluation Indicators :	・A home page ・Campaigns ・A public relations bulletin	

Green shading highlights strategies which will be carried out at the same selected area

in conjunction with Development Issue 1.

Development Issue 3: Recovery and preservation of natural resources in rural areas and improvement of living environment in urban areas.

Program 1: To support the recovery of natural resources in conjunction with Development Issue 1.

Program 2: To support the enhancement of institutional capacity for environmental administration.

Development Issue 4: Strengthening institutional capacity for decentralization of public administration and local development.

Program 1: To support human resources development for local public administrations.

In the target areas, these programs must be applied together in order to improve the overall levels of economy, society, environment and administration. For that purpose, it is necessary to carry out participatory programs involving local communities and organizations, NGOs and the private sector. In addition, it is also important to implement programs/projects applying various aid schemes old and new, such as mini-development study, "Community Empowerment Program", "Partnership Program with NGOs/local governments/ institutes", "grant assistance for grassroots projects", and training programs, in appropriate combinations. Since Mexico is highly developed and rich in human resources compared with other developing countries, it is advisable to place emphasis on the participatory approach. IMEXCI, as a matter of fact, has been seeking to intensify the international cooperation by the participation of organizations inside and outside of the country, such as NGOs, private organizations, local governments, etc.

Regarding the four development issues, it is desirable to select special target areas in terms of poverty alleviation, and to intensively support the programs concerned in those areas. According to the results of a preliminary study, the following six areas are suggested to be the special target areas.

(a) State border area of Veracruz, Hidalgo and San Luis Potos
(b) State border area of Veracruz, Puebla and Oaxaca
(c) Northeast area of Oaxaca
(d) Southwest area of Oaxaca
(e) Southeast area of Guerrero
(f) State border area of Michuacan, Mexico and Guerrero

The programs other than those shaded gray must be implemented in the country as a whole.

Development Issue 5 is the "promotion of Mexican aid extension mainly to the Central

Table 9 Aid Resources Allocation to Development Issues

Development Issues and Programs		Base Case		Policy Case	
		%	million yen	%	million yen
Total Amount of Aid Resources		100	3,600	100	3,600
Development Issue 1	Correction of regional disparities through poverty alleviation	20	720	30	1,080
	Program 1:Support for PROGRESA				
	Program 2:Support for SEDESOL				
	Program 3:Support for promotion of maternal and child health				
Development Issue 2	Fostering and promotion of agricultural products processing industries and small enterprises in rural areas	20	720	10	360
	Program 1: Support for promotion of rural industries				
	Program 2:Support for promotion of supporting industries				
	Program 3:Support for vocational training of youth				
Development Issue 3	Recovery and preservation of natural resources in rural areas and improvement of living environment in urban areas	20	720	30	1,080
	Program 1:Support for recovery and preservation of natural resources				
	Program 2:Support for enhancement of institutional capabilities of local governments' environmental administration				
	Program 3:Support for improvement of living environment in big cities				
Development Issue 4	Strengthening of institutional capacity for decentralization of public administration and rural development	20	720	10	360
	Program 1: Support for human resources development for local administrations				
	Program 2: Support for the capacity improvement of higher educational institutes in rural areas				
Development Issue 5	Acceleration of Mexico to be a donor country	15	540	15	540
	Program 1: Support for the improved effectiveness of IMEXCI aid				
	Program 2: Support for the expansion and sustainability of South-south Cooperation				
Development Issue 6	Strengthening of friendly relations between Japan and Mexico	5	180	5	180
	Program 1: Increased public relations of Japanese aid				
	Program 2: Reinforcement of the personnel for international exchanges between Japan and Mexico				

American and Caribbean countries." Its aim is "to accelerate Mexico to be a donor country through the improvement of Mexican aid to the Central American and Caribbean countries with the aid technology transferred through South-south Cooperation." Development Issue 6 is the "strengthening of friendly relations between Japan and Mexico," which is not exactly a Mexican development issue but the Japanese expectation for Mexico. Its objective is "to further strengthen the friendly relations between Japan and Mexico through the implementation of Development Issue 1 to 5 and some original programs."

(3) Development Issues, Programs and Allocation of Aid Resources

In the five years from 1994 to 1998, Japan's assistance to Mexico (technical cooperation and grant aid) amounted to a total of 16.01 billion yen or the average of 3.2 billion yen a year. Annual assistance shows a trend of moderate increase from 1994 and reached to 3.64 billion yen in 1998. Taking into account Mexico's high GNP per capita, it is unlikely assistance will be further increased. Hence, it is relevant to estimate an average of 3.6 billion yen a year for another five years. The six development issues and fifteen programs summarized in Table 8 are expected to produce adequate outcomes within this limited aid. It is therefore necessary to prioritize the development issues and programs, considering which of them must be implemented, and how far and how deeply they must be carried out in view of Japan's resources and Mexican commitment.

Table 9 shows two types of aid resource allocation, namely the "base case" and the "policy case." When the total of 3.6 billion yen is divided into respective development issues in the proportions shown in the table, the amount of aid to be allocated to the programs addressing respective development issues, and whether those allocated resources are ample enough to attain the objectives of those programs need to be examined. Based on this study, the development issues and programs must be examined and prioritized considering the following: 1) which development issues to omit, if any, 2) if all the development issues can be adopted, which programs to undertake, and 3) if all the programs for the target areas are to be pursued, how to further sub-divide those areas.

For this examination and prioritization, definite perspectives of the Mexican side and collection and assessment of site information by the Japanese side are indispensable. And, based on them, the two parties must intensify the continuous dialogue. The Japanese Embassy and the JICA Mexico Office will play vital roles in these activities. It is therefore necessary to enhance their functions and to create settings so that they will be able to fulfill their roles.

(4) Important Matters to Consider in "Development Issue Basis Approach"

1) Coordination of concept of technical cooperation

The traditional or mainstream concept of Japan's technical cooperation used to be "to transfer technology." However, when the "development issue basis approach" is adopted, it will be required to widely disseminate the technologies and systems that are supposed to be most suitable for the development issues. This is a paradigm-shift in technical cooperation from the conventional "aid scheme basis" to the new "development issue basis," which inevitably accompanies the transition of the basic concept from supply-side logic to demand-side logic. JICA's system reform to country-basis/region-basis is in line with this conceptual transition. Based on this new system, the "development issue basis approach" must be further enhanced.

Mexico is an upper-middle-income country, which will soon no longer be a recipient country, and has a strong capacity for planning and implementation to address its issues. Japan, therefore, can extend its aid to supplement weak areas in Mexico's self-help efforts. In this regard, Mexico is an ideal model country for Japan to start adopting the "development issue basis approach."

2) Step-by-step transition from the conventional approach to the development issue basis approach

(a) Improvement of the "impact" of ongoing programs/projects

Before applying the development issue basis approach, ongoing programs/projects have to be improved. For this purpose, the impact of the programs/projects, whose "impact" is low even though the "relevance" is high, must be enhanced.

(b) Prioritization of the development issues and the programs

The ongoing programs/projects planned to be terminated should not be handed over to the similar programs/projects, but should be transferred to the new "development issue basis approach". In order to make this happen, by starting early the dialogue with IMEXCI about the six development issues stated above, it is necessary to set priorities of the issues and prepare plans for shifting the approach to the new one. Then the development issues and the programs should be launched in order of priority and state of readiness.

(c) All the ongoing programs/projects in Mexico are

scheduled to terminate by the end of FY2003. It is therefore desirable to prepare for shifting the approach by the end of the year, and to start the development issue basis approach in full scale from FY2004.

3) Coordination of activities in the project cycle

A conventional project cycle generally starts from a bilateral policy discussion followed by a project formulation study, and then the cycle follows the sequence of "preliminary survey-implementation-operation-evaluation." In this case, a program /project is classified under the categories of "sector" and "aid scheme" from the very beginning. In addition, the counterpart organization of a recipient country is generally a central government organization, which is under the corresponding category of the sector, and people other than the counterparts rarely participate in the program /project. However, in the "development issue basis approach," it will be required to discuss the significant development issues of Mexico from the stage of policy discussion, free from the sector, the aid scheme and the counterpart organization, in order to identify the development issues and choose adequate programs to address them. The conventional approach, in which the Japan Ministry of Foreign Affairs and JICA headquarters take the initiative, will not be able to cope with the whole process stated above; and, hence, the Japanese Embassy in Mexico and the JICA Mexico Office are expected to play leading roles in the new approach.

The significant functions expected to be carried out by the Japanese Embassy and the JICA Office are: (a) to select development issues and programs, (b) to develop plans to utilize Japanese ODA to Mexico most effectively and efficiently for achieving the expected outcomes, (c) to implement these plans, (d) to monitor the outcomes of the programs/projects and (e) to feedback the monitoring results to the next fiscal year for better planning. In order to practice the "development issue basis approach," it is, therefore, a prerequisite to enhance the capacity of the Japanese Embassy and the JICA Mexico Office. In particular, the devolution of authority, flexible operation of budgets, and human resources development mainly concerning the local staff should be accelerated and strengthened. While "policy related matters" must be finalized based on the decisions of the Ministry of Foreign Affairs and/or the JICA headquarters, the decision-making over "operation methods" is best delegated to the Japanese Embassy in Mexico and/or JICA Mexico Office. The "policy related matters" are, for example, the finalization of the development issues to be addressed, the programs that compose the development issues and the objectives of the programs; while the "operation methods" are determining "what is the most appropriate sector mixture and/or aid scheme mixture for the poverty alleviation of the specially selected areas," "how to monitor the outcomes," "how to feedback the monitoring results to the next year's plan," and "in what order the development issues/ programs should be executed."

(5) Requests to the Government of Mexico

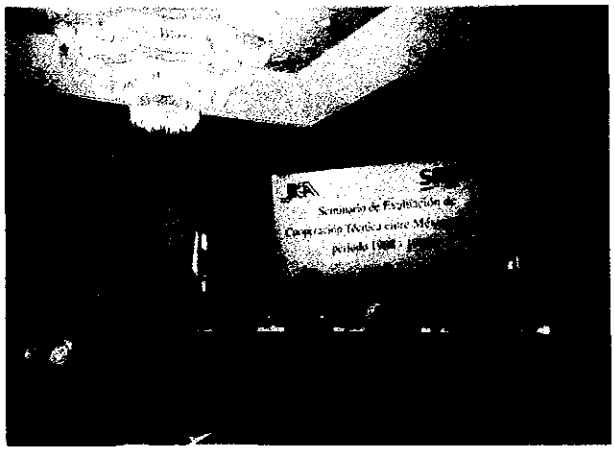
Lastly, from the perspective of improving the outcome and impact of Japan-Mexico technical cooperation, the requests to the Mexican government, which emerged in the process of this evaluation study, are examined here.

1) Follow-up activities to heighten the project impact

According to the results of the aid scheme evaluation and the sector evaluation, the technical cooperation programs/projects implemented in the past were positively evaluated on the whole, except that their "impact" was evaluated relatively low. The impacts of the Development Studies were particularly poorly evaluated, and hence it is desired that the Mexican side work to improve this situation. Specifically, before making a request for a development study, the Mexican government is expected to study if the country has the right conditions for implementing a program/project after the development study is completed. And after the completion of the development study, it will be desirable to have a series of discussions preparing for the implementation not only with the counterpart organization but also with IMEXCI, which functions as the general liaison office.

2) Needs identification and monitoring for effective Third-country Training programs

Since the Third-country Training programs that have their base in Mexico are highly significant for both Japan and Mexico, the Mexican side is expected to make further effort to improve the training courses to satisfy the needs of the Central American, Caribbean and South American countries. Needs identification is the first step for their betterment, and the monitoring of the ex-participants is the second. It is desired to further improve the Third-country Training by strengthening the needs identification and monitoring systems by utilizing the networks of the Ministry of Foreign Relations and/or IMEXCI throughout the Central American, Caribbean and South American countries.



The Evaluation Seminar held in Mexico City in September 2001

3) Enhancement of the impact of the Japan Overseas Cooperation Volunteers programs

It is delightful that the Mexican side has highly evaluated the Japan Overseas Cooperation Volunteers (JOCV) programs, and this appreciation is expected to be maintained in the future. However, the results of the questionnaires revealed the struggles of the volunteers who were placed between community people and counterparts. For example, because of the low morale, low capabilities and high resignation rate of the counterparts who were in positions to deliver public services directly to community people, it was difficult for the volunteers to help build good relationships between the people and the counterparts, which resulted in poor outcomes of the programs. IMEXCI has proposed supporting the volunteers to produce further outcomes by grouping the volunteers and/or by letting them collaborate with other aid schemes. It is desired that IMEXCI incorporate the JOCV programs into its program of work and coordinate with the JICA Office.

4) Promotion of cooperation along the lines of Japan-Mexico Technical Cooperation Agreement

It is highly appreciated that IMEXCI and the implementing organizations, which function as the liaison organization of Japanese technical cooperation to Mexico and as counterpart organizations, respectively, are not only friendly and cooperative but also efficiently promote the implementation of aid programs/projects by assigning appropriate human resources. The remaining issue to be addressed is compliance with the clause of "exemption of tariffs, taxes and like charges." Regarding this matter, although the Japanese side has repeatedly requested compliance with the agreement, it has not been fully settled yet. Prompt settlement by the Mexican side is desired.[2)]

In addition, the Mexican side is expected to develop its system to phase in the "development issue basis approach" as a future direction. It is commonly observed that local governments follow the example of the central government in a sector basis system, and divide programs/projects likewise into sectors, leaving the local issues untouched. The multi-sectoral approach and the comprehensive approach have vital significance for addressing the poverty in local areas, and hence the system reforms aiming at those approaches are awaited.

8. Attempts to Feedback the Evaluation Results

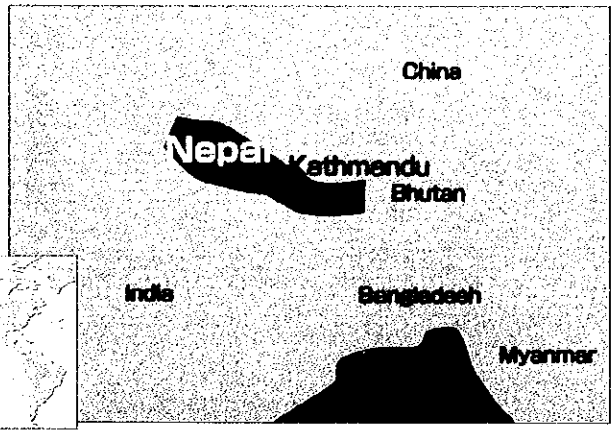
Due to feedback of the results of this evaluation to related organizations of Mexico's side, an "Evaluation Seminar" was held in Mexico City on 18 September 2000 and in Veracruz on 22 September 2000.

Based on the results of this country-program evaluation on Mexico, JICA sorted out the prioritized fields for aid in the "JICA country-program implementation plan FY 2001." Further, the studies following the requests have been conducted by issue aiming at addressing the development issues in these prioritized fields.

2) This matter was settled at present, according to Mexican Government's effort to compliance the agreement.

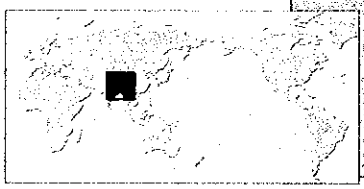
Nepal

Poverty and Gender in Agriculture, Forestry and Fisheries Cooperation



Project Sites

Kathmandu, Janakpur Area, Ramechhap District, Kaski District, Parbat District



1. Background and Objectives of Evaluation

In formulating projects that require activities from viewpoints of poverty and gender, JICA carries out social and economic studies at the planning stage. However, JICA is still at the stage of trial and error concerning how to incorporate poverty or gender issues revealed by such studies into project implementation.

Considering this lack of experience, this evaluation study was conducted to identify the lessons learned and recommendations for future JICA cooperation activities to address poverty and gender issues, and to design projects that are effective at the local level, through evaluating completed or ongoing JICA projects in agriculture, forestry and fisheries in Nepal from poverty and gender perspectives.

2. Evaluated Projects

- **The Janakpur Zone Agriculture Development Project**
  (1974-1984, Project-type Technical Cooperation)
- **The Horticulture Development Project (Phases I, II and Follow-up)**
  (1984-1999, Project-type Technical Cooperation)
- **The Project for Natural Water Fisheries Development (Phase I and Follow-up)**
  (1991-1998, Project-type Technical Cooperation)
- **The Community Development and Forest/ Watershed Conservation Project (Phase I)**
  (1994-1999, Project-type Technical Cooperation)

*The following two projects were being implemented in association with the above project and, thus, included in the subject of the evaluation study: Greenery Promotion Cooperation Project (Team dispatch of Japan Overseas Cooperation Volunteers) and Development Study on Integrated Watershed Management in the Western Hills (Development study).

3. Evaluation Teams and Period of Evaluation

Entire period of evaluation:

10 September 1999-31 March 2000.

(1) Preliminary Survey (11 September 1999-19 September 1999)

Yoshihiko NISHIMURA, Professor, Graduate School of International Development, Nagoya University

Mutsuyo KADOHIRA, Associate Professor, International Cooperation Center for Agricultural Education, Nagoya University

Michiko YOSHIOKA, Lecturer, Graduate School of International Development, Nagoya University

(2) Agriculture Team I (14 November 1999-1 December 1999)

Jiro TATSUMI, Professor, Graduate School of Bioagricultural Sciences, Nagoya University

Morio IIJIMA, Associate Professor, Graduate School of Bioagricultural Sciences, Nagoya University

Mutsuyo KADOHIRA, Associate Professor, International Cooperation Center for Agricultural Education, Nagoya University

Shigeaki HATTORI, Professor, Graduate School of Bioagricultural Sciences, Nagoya University

Minoru KONDO, Research Associate, Graduate School of Bioagricultural Sciences, Nagoya University

Tsutomu KANAZASHI, Graduate Student, Graduate School of Bioagricultural Sciences, Nagoya University

(3) Agriculture Team II (11 December 1999-26 December 1999)

Jiro TATSUMI, Professor, Graduate School of Bioagricultural Sciences, Nagoya University
Mutsuyo KADOHIRA, Associate Professor, International Cooperation Center for Agricultural Education, Nagoya University
Chisato TAKENAKA, Associate Professor, Graduate School of Bioagricultural Sciences, Nagoya University
Hidemi KITANO, Associate Professor, Graduate School of Bioagricultural Sciences, Nagoya University

(4) Law (27 December 1999-5 January 2000)

Kenji YOTSUMOTO, Associate Professor, Law Department, Nagoya Keizai University
Noriyuki ASANO, Lecturer, Seibo Jogakuin Junior College

(5) Gender (8 January 2000-19 January 2000)

Hisae NAKANISHI, Associate Professor, Graduate School of International Development, Nagoya University
Kaori TANAKA, Graduate Student, Graduate School of International Development, Nagoya University
Kenji KAWADA, Graduate Student, Graduate School of International Development, Nagoya University

(6) Poverty (13 January 2000-2 February 2000)

Aya OKADA, Associate Professor, Graduate School of International Development, Nagoya University
Kenji KAWADA, Graduate Student, Graduate School of International Development, Nagoya University

(7) Economy (22 January 2000-2 February 2000)

Shigeru OTSUBO, Associate Professor, Graduate School of International Development, Nagoya University
Hedving Rozsnoi, Graduate Student, Graduate School of International Development, Nagoya University

(8) Supplementary Survey (Fisheries) (9 March 2000-24 March 2000)

Yoshihiko NISHIMURA, Professor, Graduate School of International Development, Nagoya University
Akiya SEKO, Graduate Student, Graduate School of International Development, Nagoya University

4. Methods of Evaluation

In carrying out the evaluation study, JICA made a full contract with a university for the first time. Nagoya University, which was commissioned, organized the Evaluation Committee for Technical Cooperation in Nepal consisting of the Graduate School of International Development as the chief, the Graduate School of Bioagricultural Sciences and the International Cooperation Center for Agricultural Education to undertake the study. The Committee discussed strategies and subjects of the evaluation and held study sessions to collect information on Nepal.

Eight teams, formed by area of research, carried out the field survey (see the above list of the evaluation teams). The teams collected information by having local consultants fill out the prepared questionnaires and by conducting interviews with farmers and other stakeholders. Sample farmer households were drawn randomly from both the project sites and control sites, where no projects were implemented. During the field survey, JICA experts and JOCVs provided advice and assistance to the evaluation teams.

After returning to Japan, each team confirmed and analyzed the collected data and prepared the evaluation report.

5. Situation of Poverty and Gender in Nepal

(1) Situation of Poverty

Nepal started its efforts to modernize the nation in the mid-1950s and launched the First 5-year National Development Plan in 1956. Economic and social indicators around that time, per capita income of about $45, literacy rate of 5 percent and life expectancy of below 35 years-were poor but not too bad compared with the level of other low-income countries at that time. After more than forty years, Nepal is currently implementing the Ninth 5-year National Development Plan (1997-2002). In 1998, per capita income, literacy rate and life expectancy reached $210, 38 percent and 57 years, respectively.

However, these figures are far below the average of South Asia (per capita income of $430) and low-income countries ($520) of the same year. It could be said that over the past 40 years Nepal has lagged behind the other countries with similar income levels at the time the measurements started. Not only in income, but in other aspects too, Nepal is behind neighboring countries: for example, only 6 percent of the population have access to sewage facilities, while the figure is 30 percent in Bangladesh and India, and access rate to safe water is 59 percent in Nepal in contrast to the South-Asian average of

81 percent.

Factors behind such poor achievement in economic development are the segmentation of the country due to physical conditions (e.g., road networks are poorly developed in mountainous areas) and cultural distinctions by caste and ethnicity. The segmentation has created gaps in access to markets, information and social services: economic development has been concentrated in cities such as Kathmandu, which has widened the gap between urban and rural areas.

Regarding the situation of income poverty in Nepal, 40-50 percent of the population is still below the poverty line[1]. Due to the high annual average population growth of 2.5-2.7 percent, the population below the poverty line exceeds 9 million.

Most of the poor live in rural areas and are engaged in agriculture. Statistics on agricultural production and employment show little growth in per capita output (i.e., labor productivity in agriculture), and that constitutes an important factor for poverty in Nepal. According to the Living Standard Measurement Survey supported conducted by the World Bank in 1995, the population categorized as the "very poor" holds a smaller amount of land and irrigated land than other categories of the population. The very poor also have poor access to agricultural inputs such as chemicals, technical advice by agricultural extension agents or veterinarians and agricultural credits.

Under such circumstances, the ongoing Ninth 5-year National Development Plan raised poverty alleviation as the key element of its development objectives. To that end, the Plan had a new understanding of the importance of agricultural development and, thus, placed the Agriculture Perspective Plan (APP) in the center of national development. APP aims at rural development through the improvement of agricultural productivity, thus increasing income.

Table 1 Gender gap in education

	Female	Male	Female/ Male
Literacy rate (%)	19	54	0.36
Have attended school (%)	19	50	0.38
Enrolled in school now (%)	20	32	0.62
Gross enrollment rate for primary school (%)	80	108	0.74
Average expenditure for education (Rupees/year)	1,501	1,600	0.93

Source: CBS, Nepal Living Standards Survey 1995/96.

Table 2 Gender-disaggregated labor participation rate and unemployment rate

(%)

	Female	Male	Total
Labor participation rate			
1971	35.2	82.9	59.3
1981	46.2	83.2	65.1
1991	45.5	68.7	57.0
1996	66.4	75.2	70.6
Unemployment rate 1995/6	19	50	0.38

Sources:CBS, Nepal Living Standards Survey 1995/96.
Population Monograph of Nepal, 1995
NRB, Multipurpose Household Budget Survey, 1998

(2) Gender Disparities

In addition to the aforementioned castes and ethnicity groups that constitute the social and cultural base of Nepal, social, cultural an economic gender disparities also characterize Nepalese society and culture. Women are entirely disadvantaged regarding access to the means of production and participation in decision-making at both the household and community levels. They also have fewer opportunities for education and health services and receive a lower economic reward for their labor. However, women often bear a heavier burden than men: there is a general estimate that in household and production activities, the women's workload is 40 percent heavier than that of men regardless of age.

Furthermore, gender issues are also strongly related to agricultural productivity. The literacy rate of rural women, who shoulder a large part of productive activities in rural areas, is as low as 19 percent, and that is a basic factor for low and lagging labor productivity. There is a need to reduce the time women spend daily on tasks such as collecting water and firewood so that they can spend time on literacy or technical training and productive activities. Measures for this might include the construction and maintenance of essential farm roads, mountain paths and water supply facilities [2].

The Ninth 5-year National Development Plan includes several measures for gender mainstreaming in development programs and reducing gender gaps as well

1) The poverty line is a criterion to calculate the population of the poor. It is often defined as per capita income or expenditure that is necessary for having a minimum life. In Nepal, the poverty line was defined as annual per capita expenditure of 4,404 Rupees by the Living Standard Measurement Survey conducted in 1995. The proportion of the population below this line (poverty rate) was 42%. There is also an "international poverty line" of 1 dollar per person per day (calculated using the purchasing power parity rate of 1985) that was defined by the World Bank for the purpose of international comparison. Using this international line, the poverty rate of Nepal is 53%.

2) The team visited the site of a women's literacy class in the mountains. The participating women, who were engaged in long hours of hard work for household and production, walked on unlit mountain paths to attend the class after they finished the evening housework. Despite such unfavorable conditions, they seemed to have a strong desire to learn. They also seemed to be enjoying this women's group activity.

as regional and ethnic gaps. In agriculture, forestry and fishery sectors, the Plan includes such gender-related policies as guarantee of women's rights in APP for the purpose of empowerment of women and increased access of women to medical services, education and agricultural extension services.

The evaluation team interviewed several persons in charge to get concrete action plans corresponding to these policies, but the response gave neither clear answers nor a signal of their eagerness for such policies. It could be said that the efforts to address gender issues in Nepal's 5-year National Development Plans have just started. In comparison to Bangladesh, for instance, where gender issues have evolved over time in the process of implementing several national development plans, the Government of Nepal seems to be far behind and still a long way from eliminating gender gaps. Therefore, NGOs and development assistance agencies should be required to bring lessons learned in neighboring or other countries into Nepal for the implementation of gender-responsive development projects as model cases.

Fig. 1 Contribution of the projects to the improvement of production and quality of life

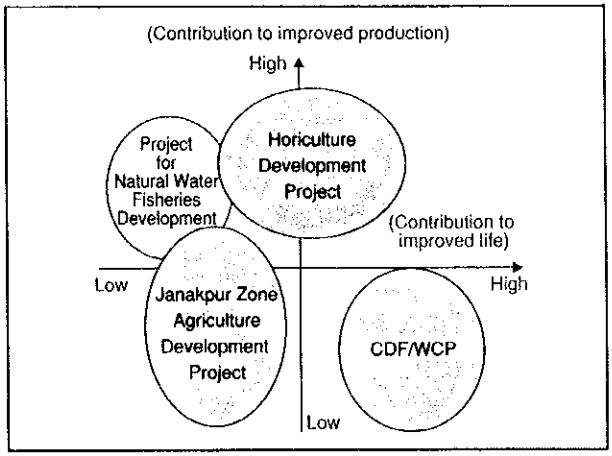


Table 3 Overview of projects studied

	Janakpur Zone Agriculture Development Project (1974-1984)	The Horticulture Development Project (1984-1999)	The Project for Natural Water Fisheries Development (1991-1998)	Community Development and Forest/ Watershed Conservation Project and Greenery Promotion Cooperation Project
Project site(s)	Janakpur Area	Kathmandu, Kabhre District, Ramechhap District	Kaski District	Kaski District, Parbat District
Background of the Project	To carry out agricultural development that was ranked as high priority in the Fourth Five-year Plan, Nepal divided geographically the areas to be developed into several zones, each of which was to be assisted by a donor. Japan was responsible for carrying out cooperation activities in Janakpur District and started this project.	For the efficient use of small plots in mountainous and hilly areas, Nepal planned horticulture development in those areas and requested financial and technical cooperation from Japan for the establishment of horticulture development centers.	The government of Nepal regarded aquatic resources as a low-cost and easy to produce/supply source of animal protein that would improve the nutritional status of people, and requested cooperation from Japan in the improvement of production techniques of fry production of carp and local fresh water fish at the already existing fisheries development centers	Within the framework of the Forestry Master Plan of 1988, Japan assisted in environmental conservation activities in Nepal through the Forestry Extension Project. A study on this project proposed the idea that people-centered cooperation based on needs would lead to environmental conservation. Based on this study result, the government of Nepal requested from Japan another cooperation project that would include both a soil conservation/ watershed management program and a program for the development of community environment and forest resources.
Objectives and Activities	With the ultimate aim of increasing incomes and improving the living standards of the farmers living in the project sites, Japan assisted in the establishment and management of the Janakpur Agriculture Extension Center and carried out training at the Center and extension activities at model farms and in mountainous areas.	The project aimed to utilize mountainous and hilly areas and to promote fruit growing, which was to contribute to the diversification of agriculture, increase in agricultural income, improvement of nutritional status and acquisition of foreign currency. Activities included technical development in fruit cultivation, training of technical workers and dissemination of new techniques to farmers.	With the aim of improving the research capabilities of counterparts engaged in fish culture development and thereby contributing to the development of fresh water fish culture in the central hills, the project carried out development and transfer of the related techniques.	A package of three projects (Community Development and Forest/Watershed Conservation Project, Project-type Technical Cooperation, Greenery Promotion Cooperation Project, team dispatch of JOCVs and development study) was implemented for the purpose of contributing to the improvement of land productivity and natural environment through the implementation of village development sub-projects for the improvement of living standards. Activities included the development and validation of methods of planning, implementation, monitoring and evaluation of village development sub-projects.

6. Impact of Projects on Poverty

(1) Characterization of JICA Technical Cooperation Projects in Agriculture, Forestry and Fisheries

The team developed a two-dimensional dispersion chart to characterize each project from the aspects of "contribution to production" and "contribution to improvement of life" (Fig. 1), which showed the following results: 1) Janakpur Zone Agriculture Development Project had a low direct relation to production and improvement of life; 2) the Horticulture Development Project focused on the production side; 3) the Project for Natural Water Fisheries Development contributed slightly to production but had no connection with improvement of life; and 4) the Community Development and Forest/Watershed Conservation Project and the Greenery Promotion Cooperation Project (CDF/WCP & GPCP) contributed much to quality of life but had a low contribution to production.

The target group of technical transfer were: 1) extension workers in the Janakpur Zone Agriculture Development Project; 2) both technicians of the national horticultural experimental station and model farmers in the Horticulture Development Project; 3) technicians of the national fisheries experimental station in the Project for Natural Water Fisheries Development; and 4) local people in CDF/WCP & GPCP.

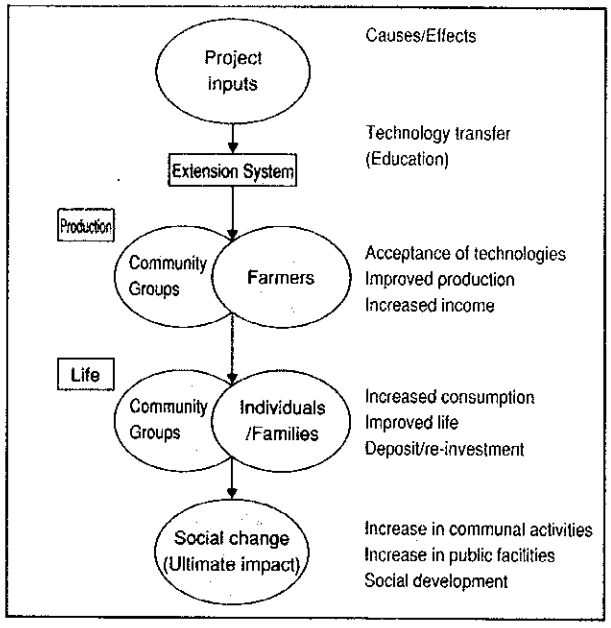
It was found that the greater variety of cooperation schemes added to a project, the greater the categories of recipients of technical transfer. For example, the Janakpur Project established the link with farmers after it introduced pump irrigation free of charge. In the case of the Horticulture Development Project, the construction of laboratory facilities (the Horticulture Development Centers) by free of charge enabled middle-level technicians to receive training there. JOCV activities targeting local fishers preceded the NWFP Project. Above all, it was noteworthy that CDF/WCP & GPCP could address the various needs of rural communities through the combined cooperation schemes, namely, development study, JOCVs and Project-type Technical Cooperation, in one comprehensive program.

(2) Impact of Agriculture, Forestry and Fisheries Projects and Poverty and Gender Issues

Under any circumstance, a project in primary industry such as agriculture, forestry and fisheries is designed to target production. It could be confirmed from experience that such a project impacts "production" first, then "quality of life," and finally "society" (Fig. 2).

A technical cooperation project targeting poverty or

Fig. 2 Flow of impact on agriculture / forestry / fisheries project



gender issues might have certain impact if it approaches such issues directly. However, it may take time for a production-oriented project to have impact on poverty and gender, and a large part of impact might become watered down and fade away with the progress of the project. Moreover, such a project might even have a negative impact such as widening the gap between the rich and the poor and as a consequence, emergence of a new problem of distribution of the profits generated by the improvement of production.

For example, the Janakpur Agriculture Development Project had two components: those that did not directly target farmers, such as development of agricultural extension techniques and training of extension workers; and those directly targeting farmers, such as the introduction of irrigation. Underlying the extension-related components was the belief that farmers would ultimately benefit from the training of extension workers once these trained workers were back in the extension system carrying out their work. However, if the organizations and the system of agricultural extension in Nepal do not function, the outcomes would not reach to the end beneficiaries-the farmers.

As for the irrigation components, on the other hand, the inputs for a new farming system (i.e., irrigation) benefited farmers in a way that it increased their income, but only when they had farmland and access to credit. That is to say, the project might have had no impact on tenant farmers and agricultural laborers. In some cases there might even have been a negative impact such as

creating a heavier workload.

A project could be said to have had positive impact if poverty of the village as a whole was viewed as the target, but when looking at a social aspect, the project impact would not necessarily be positive due to the widening of the gap between rich (those who benefited from irrigation) and poor (those who did not). In this manner, it would be the social system of division of profits that determines impact of the output brought by the production-oriented inputs on the target (farmers and communities). Therefore, whether a project would apply the traditional social system of division of profits or aim to bring about a more equal social system is an important factor to consider at the planning stage. And in either case, the planners must assume as the project impact a social change in the end.

(3) Evaluation on poverty and gender issues using agricultural indicators

The evaluation team selected indicators commonly used in the field of agriculture (e.g., agricultural production) and prepared questionnaires based on them. Questions about the rural community and economic situation were also included. By conducting a field study including interviews, the team collected information on the life and agricultural production of 382 households. Through the study, the team assessed the impact of agriculture, forestry and fisheries projects on the improvement of poverty and gender issues. The following are some results of the impact assessment.

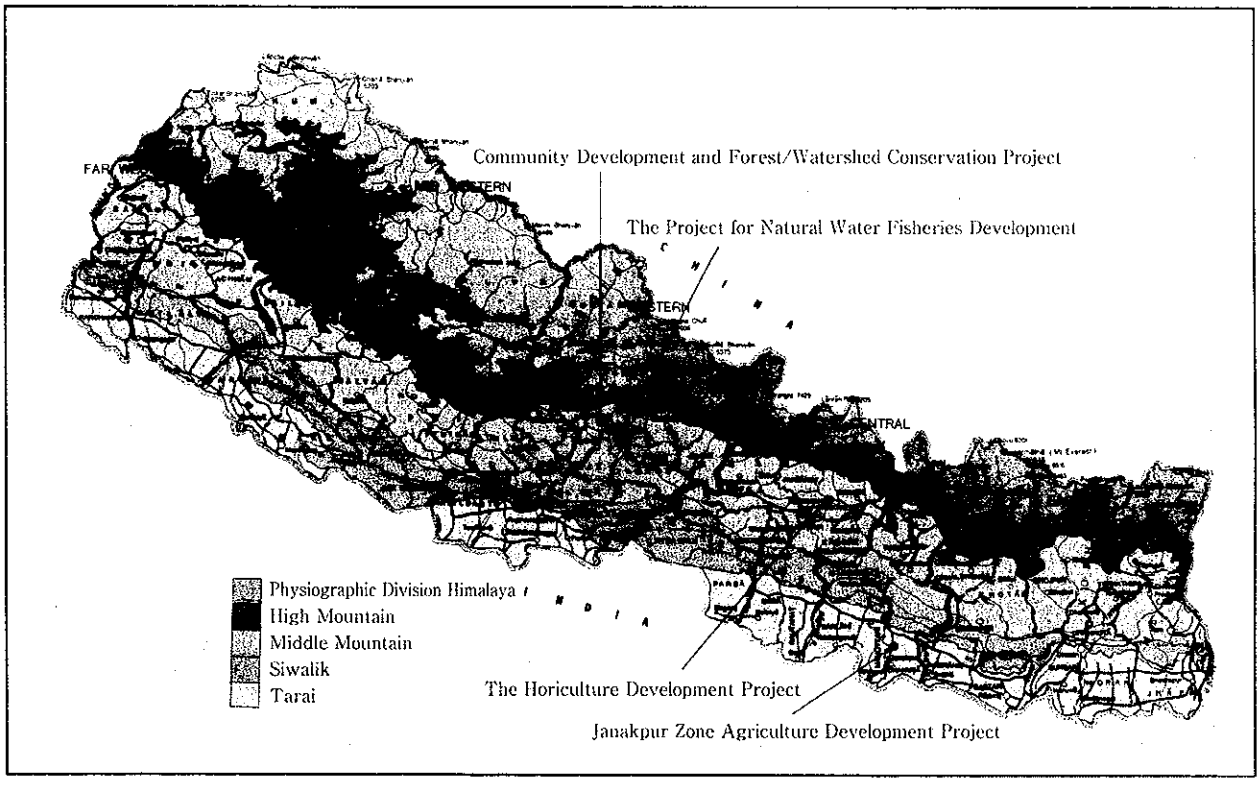
1) The Janakpur Agriculture Development Project

Regarding the means of production, the project site showed more active use of irrigation facilities than the control site. This could be a reflection of the impact of the dissemination of techniques including water management. Although the team did not see an increasing trend for rice and wheat (main crops), some indicators showed an increase in the cultivated area of wheat in the dry season. Also, the proportion of farmers who felt the production of such crops had increased was higher in the project site than in the control site. However, this might have reflected the production increase due to the expansion of cultivated area rather than the increase in yield: the yields of both rice and wheat in the project site were on the same levels as the national averages, and it was considered that the impact of the project had not reached the improvement of productivity of farmers yet.

2) The Horticulture Development Project

This project covered geographical areas with different natural and social conditions and, thus, its impact was also different from area to area.

Fig. 3 Location map of subjected projects



In Kathmandu District, despite the low cultivation rates of rice and wheat, the yield levels were high for hilly areas, which indicated the practice of intensive crop production including management of fertilizer application. In addition, vegetable production was active in the same area. The team considered this was due to the introduction and extension of fruit trees by the project, which must have stimulated interests of farmers in new technologies and more production, and thus brought the increase in production of other crops. The project had not yet achieved remarkable outputs in fruit production, since extension agents and farmers have only limited experience in fruit production.

In the Kabhre District, too, there were higher yields of rice and wheat in the project site than in the control site, which was considered due to the increased inputs such as fertilizer and chemicals. The project had introduced pear, persimmon and chestnut trees in this site, but the team did not find any of these trees in farmyards. It seemed that the groundwork for establishing new crops was not yet fully completed. On the other hand, the team found one family with a guava tree planted on the boundary between their terraced fields as one of their fodder trees. The fruit was a food for the family as far as the team could tell. Perhaps a guava tree would not contribute to cash income, but it enriches children's diet, and might play an important role in assessing the possibility of dissemination of new technologies, and moreover could serve well as an indicator of poverty.

The Ramechhap District was the site where productivity of grain production was the lowest among the project sites. However, regarding the introduction of fruit trees, junar, a variety of oranges that was being promoted by the project, was considered likely to spread in Ramechhap because natural conditions were well suited to the growth of citrus trees and wild citrus trees were found in the area. There are still challenges for the establishment of junar production on a commercial basis: the production process must be closely controlled, and access to town markets must be improved, for at present the product must be carried by humans on mountain paths over ten kilometers.


Small village on a mountain slope

3) The Community Development and Forest/ Watershed Conservation Project and Greenery Promotion Cooperation Project (CDF/WCP & GPCP)

Phase I of the Community Development and Forest/Watershed Conservation Project focused on infrastructure development activities initiated by local people such as riverbank protection work, improvement of footpaths and rehabilitation of irrigation canals for conservation of living and natural environments. Also, an organizational system involving government, Japanese experts, JOCVs and villagers was established in order to support the project, which was characterized as participatory, and better reflect people's needs and opinions.

As the afforestation activities of Phase I intended only small-scale expansion of forest areas and rehabilitation of forest resources, it was difficult at the time of this study to assess the impact of the project on people's relation to forests. The team confirmed from the villagers' responses that the information provided by the project had reached farmers and that they were getting information about the functions of forests from JICA and foreigners. At the same time, however, there was an area where more than 40 percent of the people had never been taught the functions of forests, which suggested that many villagers were still not receiving information.

(4) Case study of the impact of the Project for Natural Water Fisheries Development

In Nepal, the fisheries has developed in the southern part of the country since the 1960s. Production dramatically increased through the transformation of irrigation ponds into fishponds. In the early 1990s, since the production of the existing fishponds had peaked, the development of natural and artificial lakes in the central hilly areas was planned for the purpose of a steady increase of fish production.

Japan had been engaged through technical cooperation in small-scale fish culture in net-enclosed areas through JOCV activities in Pokhara City and its

neighboring areas since the 1970s. Fishermen accepted this technology because the areas were naturally rich in fish feed such as plankton and the cost of introducing net-enclosed fish raising was low.

In 1991, Project-type Technical Cooperation started as an expanded form of the said JOCV cooperation. Fish production increased remarkably as the supply system was well established through the achievement of one of the project objectives, which was the introduction of appropriate technology for the production of fries in the hatchery center. The terminal evaluation of the project highlighted this good result in terms of production, though it pointed out that the center had a problem regarding financial sustainability.

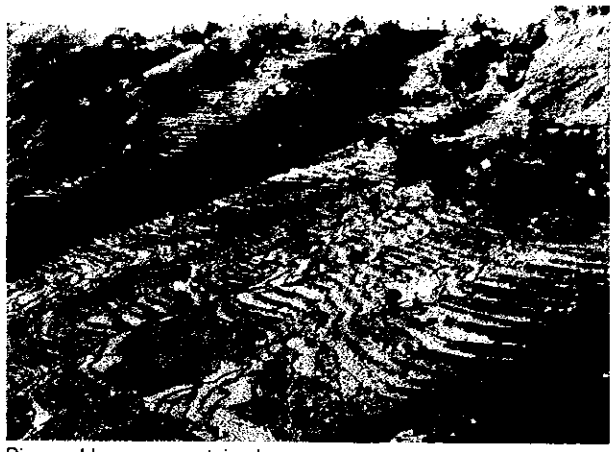
It could be said that the aquaculture, which started in the south, developed in a stable manner, having been introduced to the central hilly areas, although not without problems.

With regard to the impact of the increased production, both the southern areas and the central hilly areas had benefited economically. However, from the viewpoint of poverty reduction, the team found the following differences between the impacts of fisher in the two areas:

1) In the southern areas, those who benefited economically were owners of the irrigation ponds (land). Therefore, it was considered that the economic disparity between owners and non-owners of ponds became wider.
2) In the central hilly areas, the beneficiaries were fishers who are in a lower caste than farmers. This fact largely contributed to a bottom-up reduction of the poverty gap between farmers and fishers.

What was noteworthy from the viewpoint of sustainability-focused aid was the "continuity" of poverty reduction in the central hilly areas. "Continuity" here meant that individual beneficiaries improve economic and social status of their families while not wasting their income and paying back their debt, and that the number of such beneficiaries increases.

The team considered that such continuity would grow out of the improvement of fishers' self-organizational capacity. An aquaculture union existed before the project, but credits were given to fishers regardless of whether they were members of the union or not. Because the repayment rate was very low, credits came to be given through the union. This helped to improve the organization's membership rate, but it was not a factor that directly contributed to the improvement of the self-organizational capacity of fishermen: It could seen many cases around the world where a person becomes a union member to acquire credits but does not repay the money.


Rice paddy on a mountain slope

In this study, the team regarded self-organizational capacity as the capability of beneficiaries to continuously make repayment for loans, return profits to their families and invest profits in new businesses. The process in which the beneficiaries expand the scale of groups they belong to was then taken as the improvement of self-organizational capacity.

Based on this recognition, the team analyzed the entire aquaculture activities, including the evaluated project, to identify factors that bring continuity by using the idea of "sustainability", one of the five evaluation principles put forward by the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD), as the framework of the analysis. As a result, the team found a factor that should not be overlooked. It was the cooperative shipping system of the catch established with the introduction of aquaculture. Having been established for convenience of distribution and accepted by fishers, the system provided fishers who had changed their lifestyle from moving to settled with an opportunity to further promote the group formation. In general, fishers have a strong disposition to individualism and independence due to their eagerness to secure their own fishing grounds. The aquaculture activity changed this characteristic, and the establishment of shipping centers functioning as a place of information exchange caused a social change towards group formation (i.e., the emergence of fishers' networks)

that had never happened before. This fact was considered to be the main factor of continuity.

(5) Impact of the Community Development and Forest/Watershed Conservation Project and the Greenery Promotion Cooperation Project (CDF/WCP & GPCP) on the poor

The team selected CDF/WCP & GPCP as the subject of the study, and analyzed the impact of the project activities on the poor. The major components of the project activities were the various sub-projects such as ginger growing, bee keeping, goat raising, improvement of footpaths, construction of water supply facilities, improvement of kitchen stoves and literacy classes.

For analytical purposes, the team set seven dimensions to measure impact of a development project in rural areas: 1) resources, 2) capital, 3) skills, 4) decision-making capability/empowerment, 5) organizational capacity, 6) infrastructure and 7) gender. The team defined these seven issues as the necessary components for the capacity building of the poor in both aspects of production and life, and proposed to analyze the project's impact on poverty reduction by examining the seven issues for each of the aspects of production and life.

Among the above seven issues, the issue of "gender" is not discussed in detail here as it will be thoroughly analyzed under the theme of "impact assessment from viewpoint of gender" (see the next section). Also, since CDF/WCP & GPCP focused on forest conservation and there had been increasing discussions on poverty and environment, the team replaced the seventh item with "forest conservation" for this study.


A woman transporting straw

Overall, the team found little significant impact of the projects on poverty reduction in economic terms, but did find some notable positive effects on the lives of the poor. Indeed, the projects brought positive impacts on the poor in terms of improvement in their knowledge, access to technology, decision-making capabilities/empowerment, organizational skill and in economic and social infrastructure in their surrounding environment.

For example, women who participated in the literacy sub-project[3] not only acquired the ability to read and write but also gained experience in group activities, and new knowledge contained in the textbook developed by the Nepalese government such as public health and conservation of environment, that was of great use for rural women in improving their village lives. In addition, as this sub-project targeted women, it helped empower women participants by giving them an opportunity to organize themselves as a group, and maintain and manage their group activities.

Also, sub-projects for constructing drinking water supply and sanitary facilities had direct positive impacts on the improvement of the lives of the poor, and also seemed to have contributed to the improvement of their health and nutrition status. It was noteworthy that in the drinking water sub-project, user groups, which were formed by villagers specifically for the project activities, voluntarily set the rules for the members, undertook operation and maintenance of the constructed facilities, established group funds and distributed the profit of the fund. It was considered to be the largest impact of the project that villagers had such experiences of organizational management.

7. Impact Assessment from the Viewpoint of Gender

The study took up CDF/WCP & GPCP as a case study again and discussed the projects' impact on participants. The team carried out separate evaluations of the impact that was quantifiable and that which was not. Examples of the quantifiable impact include income generation and shortening of time spent for some activities. To mention a few examples, the team found that the sub-projects such as ginger production, goat raising and orange production did not contribute to income generation because productivity did not improve

or the sub-project had been just started, but bee-keeping activities made an average monthly income of 150 rupees. Also, some informants pointed out that the sub-project to improve footpaths shortened their traveling time to the fields, which used to be 1.5 to 2 hours, by about 30 minutes.

On the other hand, the non-quantifiable impact included 1) the improvement of "self-development capability" (e.g., villagers gained the confidence and skills to express themselves or became able to manage time efficiently), 2) the improvement of "group-development capability" (e.g., user groups gained ability to make decisions and put them into practice by teamwork) and 3) "entertainment opportunities" (e.g., by joining user groups, women gained interaction with other women and enjoyed singing and dancing in their spare moments). Such qualitative impact was considered to be larger than the quantifiable one and, thus, very important in evaluation from gender viewpoint.

At the same time, some impact was considered negative. For example, women came to bear a heavier workload by joining user groups and their participation in distribution of income or decision-making at household level rather decreased.

Based on the above-mentioned findings, the team discussed "sustainable development" from a gender viewpoint. A merit of a project that adopts a participatory approach is that the people could acquire management skills with ownership through participation in the project, which might eventually contribute to the cultivation of the spirit of self-help within people. On the other hand, there are some limitations of a participatory project, namely the problems of maintenance of facilities constructed for the project and fund-raising of user groups. For example, in CDF/WCP & GPCP, the drinking water tanks and other facilities constructed by the projects will need continuous support from JICA for maintenance since it is difficult to obtain the necessary skills and materials locally. With regard to funding, a group fund was introduced to maintain each sub-project, but the low income of the people did not allow the deposits to reach a sustainable level. Management of the funds should be reviewed.

In addition, attention should be paid not only to whether the impact of the sub-projects was "sustainable" but also to an "inter-connection" of the sub-projects implementation of a sub-project might, even if it failed, provide a chance to create another sub-project. For example, the success of bee keeping prompted the women participants to start raising goats next.

The team also found that recognizing the cultural values and working with established user groups in the project sites may lead to better results in terms of project management and sustainability.

8. Legal Systems with Regard to Gender and Poverty Issues

The Constitution of the Kingdom of Nepal has the following articles that are related to this report: 1) the "subject of rights and equality before law," which prohibits discrimination by caste in public facilities and stipulates the principle of equal wages for comparable for men and women, 2) "economic freedom," guaranteeing freedom of occupation and business continuation, and 3) "social rights," including improvement of education and health facilities, expansion of job opportunities and improvement of the national living standard through adjustment of regional disparities in wealth allocation.

However, the "National Law" has some articles that put more constraints on women than men. For example, in the provision on "distribution and inheritance of property," there is a punishment clause directed towards women alone, property rights are limited for widows or divorced women, and daughters have fewer rights than sons.

The projects evaluated by this study, however, were not directly related to the provisions that are disadvantageous to women. For example, lawsuits were considered unlikely over property distribution or inheritance under such sub-projects as income generation or joint-ownership forestry of CDF/WCP & GPCP.

The land law is more significantly related to the projects. Basically, this law is the base for land reform. What is noteworthy is the abolition of the Zamindari system (traditional land tax collection) as well as a rule on limitation of land-holding and leased land. The land law is applied when a dispute about land arises in carrying out a project. It is important that this law as well as related organizations are well understood when designing projects that require land.

In carrying out a development project, legal problems such as rights of property, infringement on rights of water and so forth, and the means and procedures in settling

3) As one of the village-level sub-projects, six-month literacy classes were held for the caste to which many illiterate women and the poorest people belong. According to a survey conducted in this study, the literacy rate of the site of this sub-project was 23%, which was higher than both the averages of the control sites and the nation as a whole (both were 19%). The proportion of literate women to men in the sub-project site was higher at 4:10 (4 women:10 men) while in the control sites the rate was 3:10.

these disputes and organization of unions must be considered. However, the projects studied did not experience any conflicts related to land issues.

9. Relations Between Education and Poverty/Gender in Nepal

This section discusses the influences that three of the studied projects had on the education of farmer's household (couples and children) in the project sites in comparison with the situation of non-project sites.

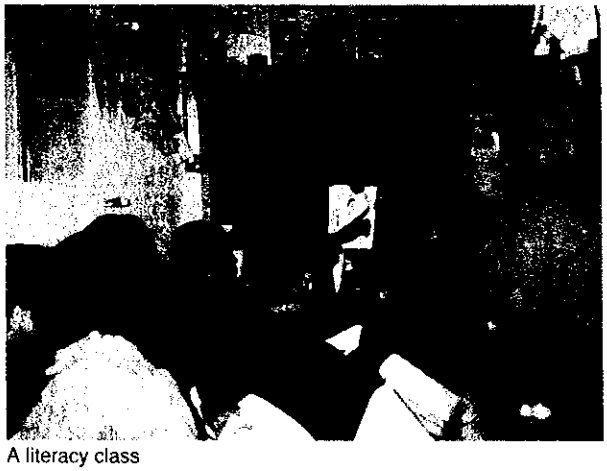
In Janakpur Zone Agriculture Development Project, the team did not find any differences in farmers' educational status such as history of schooling and literacy rates between the project site and the controlled site. The effects of the project on education were rather indirect. Two types of indirect effects were considered: one was that the project provided farmers an opportunity for learning and acquisition of knowledge (opportunity effects) and the other was that farmers improved their living standard by accepting the agricultural project and consequently gained interest in learning and education (economic effects).

Similarly, CDF/WCP & GPCP had only indirect effects on education. The project tried a variety of activities calling for women's active participation, but improvement of the status of women in terms of education was not observed.

On the other hand, the Horticulture Development Project proved to have had consistent impact on the aspect of education. Ten years of training and extension activities provided farmers with valuable educational opportunities. In the survey of farmer households, a higher proportion of husbands and wives in the project sites responded that they were taking part in distance learning, literacy classes or seminars or self-learning programs than those in the control sites, which proved that the project implementation had a consistent impact on education.The most important factor for such success was that fruit-growing technology was transferred to individual farmers at the grassroots level, thereby enabling farmers to access new technologies directly. As fruit growing was an activity in which women could take part directly, the project brought about educational effects on women as well.

All three projects also had indirect effects on improvement of the children's educational environment, namely the proportion of pupils who have textbooks, dropout rate and alleviation of their workload.

At the same time, the analysis revealed that most women were illiterate, except at some project sites. It seems that any project will have difficulty in establishing a sustainable and strong development base under such circumstances. From this fact, the importance of literacy education in agricultural projects could be reconfirmed.



A literacy class

10. Lessons Learned and Recommendations

(1) Increase in agricultural productivity and importance of economic development in rural areas

The team confirmed that technical cooperation projects in agricultural development in Nepal, where agriculture is the basic industry, played important roles in improving the living standard of farmers and in developing rural areas through the pursuit of their aims of improving agricultural productivity and increasing the income of farmers. At the same time, since non-agricultural livelihood activities are important as well for the development of rural economies, more job opportunities must be created.

The study on the Horticulture Development Project and Janakpur Zone Agriculture Development Project revealed that the projects had large impact on the productivity of farmers and fishers when they targeted them directly. Also, as seen in CDF/WCP & GPCP, disadvantaged groups such as the low caste improved their status in the society by accepting the intervention.

In this way, the impact of the improved production has a long-range influence on social status. Therefore, it is necessary to set the timing of evaluation and questions to be asked (e.g., income, social status, etc.) in accordance with its purpose. In addition, when the project does not necessarily target disadvantaged groups, impact assessment for all constituents of the society beyond the intended target groups should be carried out, because the

project might have widened the gap between the rich and the poor in the project sites.

(2) Land problems and the necessity of more inputs into the agricultural sector

A close observation of poverty in Nepal from the viewpoint of macroeconomics revealed that poor farmers lack funds to buy production inputs and lack access to the means of production (land). The scale of landholding in particular has much to do with the disparity in wealth among farmers: those with small landholdings are poor and cannot access inputs. From this, it can be concluded that the low labor productivity in agriculture leads to poverty in Nepal and thus an expansion of landholding, increase in production inputs and a review of the land system are required.

However, as the traditional landowning system is deep-rooted, rapid development will be difficult even if democratization and economic liberalization are promoted. In terms of the law, people rarely seek arbitration and, thus, it will take some time for them to seek legal intervention in the process of agricultural development.

(3) Measures for gender from the aspects of education and law

Survey results showed that when implementing a project, it is necessary to provide education for transfer of technology and knowledge. Among others, implementation of a literacy class as a sub-project proved to be an effective means of involving women in project activities. As such, a project that addresses Women in Development (WID) or gender issues requires education-related inputs. Other types of education such as mathematics and science are also considered necessary for agriculture development projects. In this way, education plays an important role in the process of technology transfer, improving incomes and quality of life.

With regard to law and gender, there arise few legal disputes over gender-related issues despite the articles of the Constitution and the National Law that are disadvantageous to women. This shows that the traditional customs still remain in the society, but they will gradually change in the process of development. In order to deal with these issues, human resources to develop the legal environment will be needed in the first place.

(4) Importance of targeting

A technical cooperation project in agriculture does not always target the most appropriate farmers. Even a project that is supposed to be poverty/gender responsive sometimes does not target the right groups, namely, poor farmers and/or women. An approach to select proper target groups is required. For that purpose, precision of targeting should be improved by strengthening base-line surveys using social analysis methods at the planning stage of the project. Also, the relation between target groups and ultimate beneficiaries (i.e., impoverished farmers) must be clarified. As development at the grassroots level faces diversified societies, planners need to be careful to deal with it.

A woman fitching water. She must walk farther during the dry season.

For example, few projects that address poverty/gender directly target landless farmers or smallholders. Instead, many projects target an upper level such as middle-class farmers extension agents and then expect spillover effects of so-called model businesses or trickle-down effects. This is because the projects are designed to show outputs early on. However, one should understand that it takes time to produce outputs for a project which must be accompanied by change in social structure such as gender and poverty.

(5) Flow of project impact

When conducting an impact assessment, one should confirm where, when and of what kind the project inputs brought about impact on the society, and this will define the evaluation criteria. It is also necessary to grasp the flow of inputs and outputs until they reach the ultimate beneficiaries. Therefore, the project effects/ impact that might be brought about in a short-term and that might need long-term cooperation must be distinguished prior to the project implementation. When evaluating the project, it is important to address such a gap in timing of appearance of impact as much as possible.

(6) Indicators for impact assessment and project evaluation

To assess the impact of a project on poverty reduction in rural areas (from the viewpoint of capacity-building of the poor), the study team proposed to look at two aspects, namely, "improvement of capability in production" and "improvement of capability in various aspects of life," each of which should be evaluated using the following seven parameters: 1) resources, 2) capital, 3) technology, 4) decision-making power, 5) organization, 6) infrastructure and 7) gender.

When considering indicators for impact assessment form the viewpoint of gender, one should be aware that qualitative impacts such as those measured by self-development capability and group development capability are often more important than quantitative ones. It would be impossible to quantify impact on gender in the absence of measures. In such a case that there is no "absolute measure," a preliminary study is necessary to compare the situation of the target groups before and after the project implementation on groups which implemented project activities and those which did not. A detailed base line study focusing on social analysis is particularly needed.

(7) Extending the effects of increased yields to beneficiaries

The mainstream of technical cooperation projects in agriculture, forestry and fisheries take a yield-oriented approach, but it usually takes time for such projects to impact farmers. For example, extension services do not bring farmers tangible benefits immediately. In such a case, the intensity of impact on farmers depends on the abilities of the intermediary agents who bring new technologies to farmers (e.g., extension workers). Therefore, the project should recognize the importance of such intermediary agents and aim to strengthen their capacity by education and training. Evaluation of the process of intermediation is also important.

(8) Need for long-term cooperation to address disadvantaged groups in rural areas

When a project targets disadvantaged groups in the rural areas, namely, the poor, women and children, the expected impact on them should be larger entitlement [4], that is, an improvement of the conditions under which such groups can live by their own efforts. However, the project will not create larger entitlement for the disadvantaged groups unless the planners and managers fully recognize its importance.

Also, it takes time for the project inputs to reach disadvantaged groups, and more time is required to have impact on them. Therefore, a project of this type tends to need long-term cooperation with the implementation of some additional measures such as Follow-up Cooperation. At the same time, with regard to entitlement, inputs from outsiders might be necessary at an early stage of the project but should be minimal.

(9) Establishment of a combination approach

When considering the issue, "how the impact of cooperation in agriculture, forestry and fisheries reaches farmers," one should understand the characteristics of rural areas, particularly that the "place of production" and the "place of living" are the same. This means that the approach of the cooperation includes two aspects, production and life. Direct intervention to both aspects brings greater impact than focusing only on one aspect and expecting effects to spillover. Projects will look quite different depending on the approach taken.

It is more effective to implement a project targeting both aspects (i.e., intervention in production and life) simultaneously. This type of project is sometimes called "comprehensive development" and requires sub-projects corresponding to each of the aspects.

However, multi-sectoral projects require close coordination of sub-projects. For example, while CDF/WCP contributed greatly to empowerment of women, one of its sub-projects to improve livelihood did not have notable effects. Experts and government organizations working in this field should have participated in this livelihood sub-project. The Horticulture Development Project went the other way: it attained increased incomes by improving production technologies but did not contribute much to the empowerment of women.

In planning and implementing a project, therefore, it is important to target the right groups and adopt a functional approach, namely, a systematic combination of several JICA schemes (e.g., Project-type Technical Cooperation, Development Studies, Grant Aid, JOCVs) as already practiced in the studied projects of this evaluation.

[4] According to Amartia Sen, entitlement is "a combination of goods that an individual can dispose of on his/her own discretion through exercising rights or opportunities given by others." While empowerment presupposes the existence of those who empower (i.e., donors), entitlement is based on the premise that beneficiaries have a primary role and donors play supportive roles to provide materials and know-how. In other wards, entitlement emphasizes self-help of the beneficiaries, and is achieved by their active participation in the project.

(10) Evaluation for the utilization of project experience

Through this study the team recognized that the experience of past projects had not been fully incorporated in subsequent ones. Japan has more than 35 years of experience in technical cooperation in Nepal, and the society and economy of the country have changed dramatically over this period. However, the problems that confront projects remain basically the same. The team visited past JICA project sites and found that some projects still had effects, some had little impact and some had been transformed to other projects. This suggests the importance of long-term analysis of project impact and future evaluation studies similar to this one, but from a longer perspective. Such a study should not be an evaluation of individual projects but a comprehensive impact assessment of the cooperation (to a sector/area/country) as a whole.

11. Attempts to Feedback the Evaluation Results

In order to feedback the result of this evaluation to those who concerned to development aid, JICA evaluation seminar "Poverty Reduction and JICA's Cooperation" was conducted at Institute for International Cooperation in 17 November 2001.