Chapter 2 Achieving Greater Impact

To provide cooperation with greater impact, recently program approach and aid coordination have advanced in international development assistance. JICA is also making efforts to improve strategies and expand the effects of its programs by strengthening program approach and promotion of collaboration with other aid agencies and NGOs. The measures for human security also place importance on comprehensive assistance toward solving issues using program approach, and realization of greater impact through collaboration with other aid agencies and NGOs are also the focus of the activities for human security.

In view of these trends, Chapter 2 introduces two thematic evaluations that positioned JICA's cooperation in the concerted efforts for solving issues in the developing countries concerned and analyze and evaluate its effects. The first evaluation, titled Thematic Evaluation on Communicable Disease Control in Africa, assessed how JICA's projects have contributed to infectious disease control in Ghana, Kenya, and Zambia, where Japan has long provided cooperation for establishing research bases of infectious disease control, from a broad range of viewpoints, based on the positioning and the role for infectious disease control of supported research institutes in the health and medical field. The second evaluation, titled Program Evaluation (Basic Education Sector in Honduras), based on the EFA-FTI (Education for All—First Track Initiative), focused on the basic education program implemented by JICA combining several cooperation schemes and attempted to assess the program from viewpoints of positioning of the JICA program in the development strategy of the concerned field and contribution of the JICA program to the strategy.

1 Thematic Evaluation on Communicable Disease Control in Africa

1-1 Outline of Evaluation Study

(1) Background and Objectives

With the focus on preventive control of infectious diseases as a priority field, Japan's cooperation program for Africa in health and medical care has provided assistance with a combination of establishing research institutes as a base of research and diagnosis of infectious diseases (hardware support) and human resource development (software support) for a long period of time, targeting three research institutes—the Noguchi Memorial Institute for Medical Research (NMIMR) in Ghana, the Kenya Medical Research Institute (KEMRI), and the Zambia University Teaching Hospital (UTH). These research institutes, which have enhanced the research capacities in terms of facility and equipment and human resources, are now expected to contribute to improvement in national medical services to the general public in collaboration with various institutes involved in infectious disease control, while playing the role of a research institute in the concerted efforts for infectious disease control in the countries concerned. Under this situation, in providing cooperation in infectious disease control for the future, the need to examine past cooperation systematically and reconsider the functions and the role of research institutes for infectious disease in these countries has continued to arise.

In relation to Japan's representative cooperation in infectious disease control in Africa, which has been provided for the NMIMR, KEMRI, UTH, this thematic evaluation was planned in order to check the outputs of research on infectious diseases and ripple effects for the public health of these research institutes according to the following evaluation questions, and to examine the positioning, functions, and expected roles of these research bases inside the framework of infectious disease control in the partner countries, including aid implementation agencies other than Japan so that recommendations for future cooperation can be put together.

Evaluation questions

a. How are the target research institutes presently functioning in the health and medical sector in the partner countries and the surrounding areas in light of the positioning and functions of research institutes in infectious disease control?
b. What kind of ripple effects have been brought to the general public from the standpoint of public health by Japan's representative cooperation projects for research for infectious disease control in Africa?
c. How should these research bases be positioned in the health and medical sector in these countries, and what roles should they play?

(2) Evaluation Study Period and Team

1) Evaluation Study Period

From May 14 to December 27, 2004 (Field studies were con-

ducted in Kenya and Zambia from July 17 to August 25 and in Ghana from September 11 to 30.)

2) Evaluation Study Team

This evaluation study was supervised by the Office of Evaluation and the Evaluation Study Committee consisting of the following evaluation advisors, which was formed to discuss evaluation questions, framework, evaluation viewpoints, methods of field study, and collection method of study results. The evaluation advisors, the Office of Evaluation of JICA, System Science Consultants, Inc. conducted evaluation study and prepared the reports based on the policies determined by the Evaluation Study Committee. In order to secure the objectivity of the thematic evaluation this time, evaluation by external experts of the target country was also conducted with cooperation of the African Evaluation Association (Refer to the last part of this report, Evaluation by External Experts, for the summary).

Evaluation Advisors

Hiroshi Suzuki, Professor, Division of Public Health, Department of Infectious Disease Control and International Medicine, Niigata University Graduate School of Medical and Dental Sciences

Yasuo Moritsugu, Ex-Deputy Director, National Institute for Infectious Diseases

Koichi Miyoshi, Professor, Graduate School for Asia Pacific Studies, Ritsumeikan Asia Pacific University

(3) Projects Subject to the Study

The evaluation study targeted Technical Cooperation Projects, third country training, and dispatch of individual experts, all of which were provided at the cooperation bases of the NMIMR in Ghana, the KEMRI in Kenya, and Virology Laboratory and Tuberculosis (TB) Laboratory of the UTH in Zambia for infectious disease control. The research facilities and equipment of these three research institutes have been upgraded with Japan's grant aid as well as JICA's technical cooperation.

1-2 Framework of the Study

(1) Evaluation Methods

The analysis was conducted through the following steps.

a. Understanding of Positioning and Functions of Research Institutes

To conceptualize the general functions of research institutes for infectious disease control, the positioning and functions of research institutes for infectious disease control in developed countries were analyzed using models: the National Institute for Infectious Diseases in Japan, the Centers for Disease Control and Prevention (CDC) in the US, and the Communicable Disease Surveillance Centre (CDSC) in the UK (Refer to Figure 3-4 Interrelationship between Organizations Related to Communicable Disease Control in a Developed Country [Japan]

Table 3-10 Target Projects for the Noguchi Memorial Institute for Medical Research (NMIMR) in Ghana

Project Title	Cooperation Scheme	Project Period
Ghana College of Health Services (Korle Bu Hospital)	Dispatch of Individual Expert	1968.7-1985.3
The Noguchi Memorial Institute Project	Project-type Technical Cooperation	1986.10-1991.9
The Noguchi Memorial Institute Project (Phase 2/Follow-up)	Project-type Technical Cooperation	1991.10-1997.9
The Infectious Disease Project at the Noguchi Memorial Institute for Medical Research	Project-type Technical Cooperation	1999.1-2003.12
The West African Center for International Parasite Control Project	Technical Cooperation Project	2004.1-2008.12
Vaccine Potency Testing and Polio Diagnosis Procedures	Third-country Training	1991-1995
Laboratory Diagnosis of Yellow Fever and Other EPI Viral Diseases	Third-country Training	1996-1998
Global Parasitic Disease Control	Third-country Training	2001-2004

Table 3-11 Target Projects for the Kenya Medical Research Institute (KEMRI)

Project Title	Cooperation Scheme	Project Period
Communicable Disease Research and Control Project	Project-type Technical Cooperation	1979.3-1984.3
The Kenya Medical Research Institute	Project-type Technical Cooperation	1985.4-1990.4
The Research and Control of Infectious Diseases Project	Project-type Technical Cooperation	1990.5-1996.4
The Research and Control of Infectious Diseases Project (Phase 2)	Project-type Technical Cooperation	1996.5-2001.4
Research and Control of Infectious and Parasitic Diseases Project	Project-type Technical Cooperation	2001.5-2003.4
Research and Control of Infectious Diseases Project	Technical Cooperation Project	2003.4-2006.4
International Parasite Control Project	Technical Cooperation Project	2003.4-2006.4
Blood Screening for Viral Hepatitis and HIV/AIDS	Third-country Training	1999-2001, 2003
Eastern and Southern Africa Center of International Parasite Control	Third-country Training	2002-2006

Table 3-12 Target Projects for the Zambia University Teaching Hospital (UTH)

Project Title	Cooperation Scheme	Project Period
The Infectious Disease Project (Phase 1/Follow-up)	Project-type Technical Cooperation	1989.4-1995.3
The Infectious Disease Control Project	Project-type Technical Cooperation	1995.4-2000.3
Individual experts dispatch (2 experts)	Dispatch of Individual Expert	2000.4-2001.3
HIV/AIDS and Tuberculosis Control Project	Technical Cooperation Project	2001.3-2006.3

for the positioning of research institutes in infectious disease control in a developed country). It was confirmed that functions of these research institutes play common roles in research, human resource development, and contribution to health services (surveillance and reference) in infectious disease control. These were utilized as the analytical framework for the assessment of the research institutes in this evaluation analysis.

b. Verification of Functions and Positioning of the Target Research Institutes

Using the general functions of the research institutes for infectious diseases that were clarified in the analysis of a. as reference, the functions of the target research institutes are analyzed to identify the positioning of the target research institutes in infectious disease control in the target countries based on the situations of the health and medical sector in respective target countries (health and medical policies, aid trends, and relations with other related institutes of infectious disease control).

c. Evaluation of JICA's Cooperation

How JICA's assistance provided in each research institute contributed to infectious disease control was analyzed. In the analysis, cooperation goals were determined after checking the purposes and overall goals of individually implemented projects for each target country, and clarifying what the implementation organization of the partner country and JICA aimed for through a series of cooperation activities. The focus of examination was on whether the outcomes of these cooperation activities actually contributed to infectious disease control, and whether these contributions continued after termination of JICA's cooperation.

d. Future Role

To sum up the above analysis, the expected roles of the research institutes in respective countries for infectious disease control were examined and summarized from three perspectives of 1) research, 2) human resource development, and 3) contribution to health services, which form the framework of the evaluation study.

e. Cross-sectional Analysis of Study Results

To summarize the evaluation analysis, cooperation effects given to the three research institutes by JICA were examined, and common promoting factors leading to the cooperation effects were analyzed and the direction of future cooperation was examined.

Figure 3-4 Interrelationship between Organizations Related to Communicable Disease Control in a Developed Country (Japan)

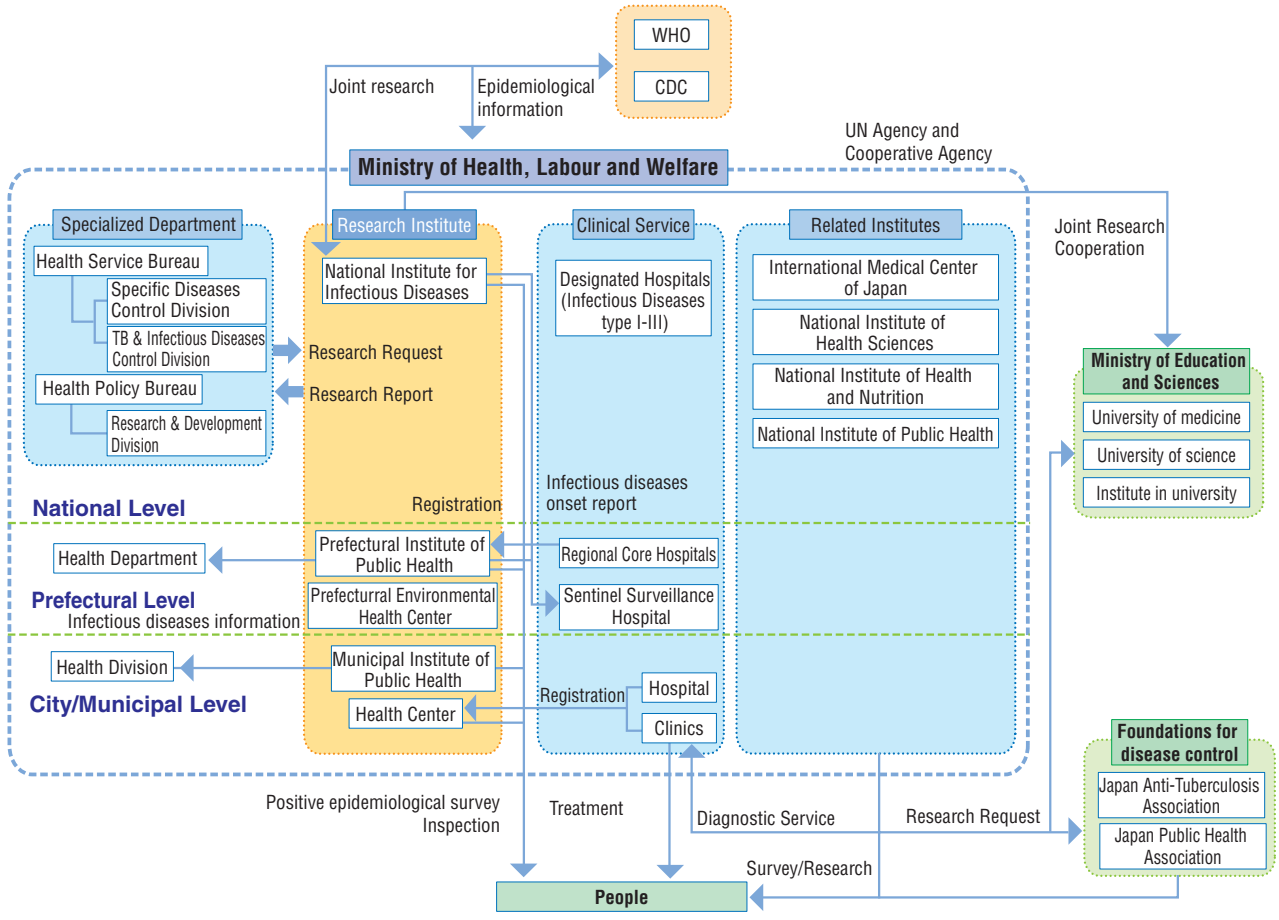
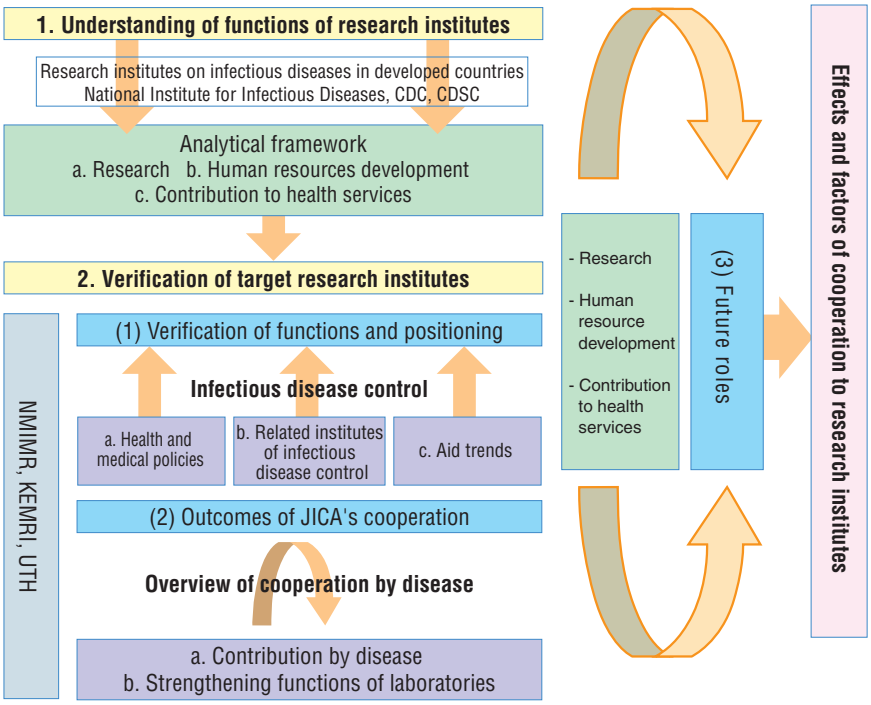


Figure 3-5 Conceptual Chart of Evaluation Method



1-3 Evaluation Analysis

This Annual Evaluation Report introduces the analysis results of KEMRI mainly in the evaluation analysis on cooperation to the NMIMR, the KEMRI, and Virology Laboratory and TB Laboratory of the UTH.*

(1) Kenya Medical Research Institute (KEMRI)

1) Outline of Cooperation

a. Background

In response to a request from the government of Kenya for a technical cooperation project for public health focusing on research of infectious disease, JICA launched the Communicable Disease Research and Control Project designating the KEMRI in 1979, the Division of Vector-Borne Diseases of the Ministry of Health and the National Public Health Laboratory Services as counterpart organizations. The KEMRI became the main partner of JICA's projects after its main facilities were completed with Japan's grant aid in 1981. Since 1979, with KEMRI as the implementation organization in the partner country, JICA has implemented seven Technical Cooperation Projects for infectious disease control including the Infectious Disease Control Project and the International Parasite Control Project, both of which are underway at this evaluation study in 2004. In this regard, the government of Japan assisted in the development of the facilities and equipment of the KEMRI, through a grant aid called the Project for Improvement of the Kenya Medical Research Institute in the Republic of Kenya in 1997.

b. Purpose and Contents of Cooperation

Since start of cooperation for the KEMRI in 1979, a series of JICA's cooperation has aimed at strengthening the research capability of the KEMRI. In 1990, human resource development in the health and medical field became an additional purpose, and training for medical personnel has been implemented to disseminate the research outputs to medical personnel inside and around the country (implemented in 17 countries including Uganda, Ethiopia, Tanzania so far). In JICA's cooperation with the KEMRI, research and training were implemented primarily in blood screening and parasite control. Especially for blood screening, the hepatitis B test kits developed by the KEMRI have been disseminated nationwide through the coordination of research and training. In addition, as a training center related to infectious disease control and a WHO reference laboratory, the KEMRI has greatly contributed to infectious disease control in the country and in Africa. Under a series of hepatitis control activities conducted by the KEMRI, hepatitis control has been implemented with the focus on protection from hepatitis B with JICA's support for epidemical surveys and the development and diffusion of testing kits for hepatitis B. In the process of the national diffusion of the test kits, hepatitis control with a focus on the prevention and measures for hepatitis B were implemented, leading to not only a significant improvement in the screening rate of blood for transfusion, but also improvement in blood-testing techniques through training in Kenya. Moreover, the KEMRI disseminates diagnostic and examination techniques by conducting third-country training in blood screening (hepatitis B and HIV/AIDS) as a research base of infectious diseases in Africa, in the midst of rapid spread of HIV/AIDS in Kenya and neighboring countries.

2) Positioning and Functions of the KEMRI in Infectious Disease Control

a. Functions of the KEMRI

The KEMRI researches comprehensively in the medical field including infectious diseases as the largest medical research institute under the jurisdiction of the Ministry of Health. In the field of infectious diseases, the KEMRI conducts study in epidemiology, immunology, molecular biology, preventive measures of 12 diseases such as HIV/AIDS and opportunistic infection. These research outputs are regularly reported to related agencies includ-

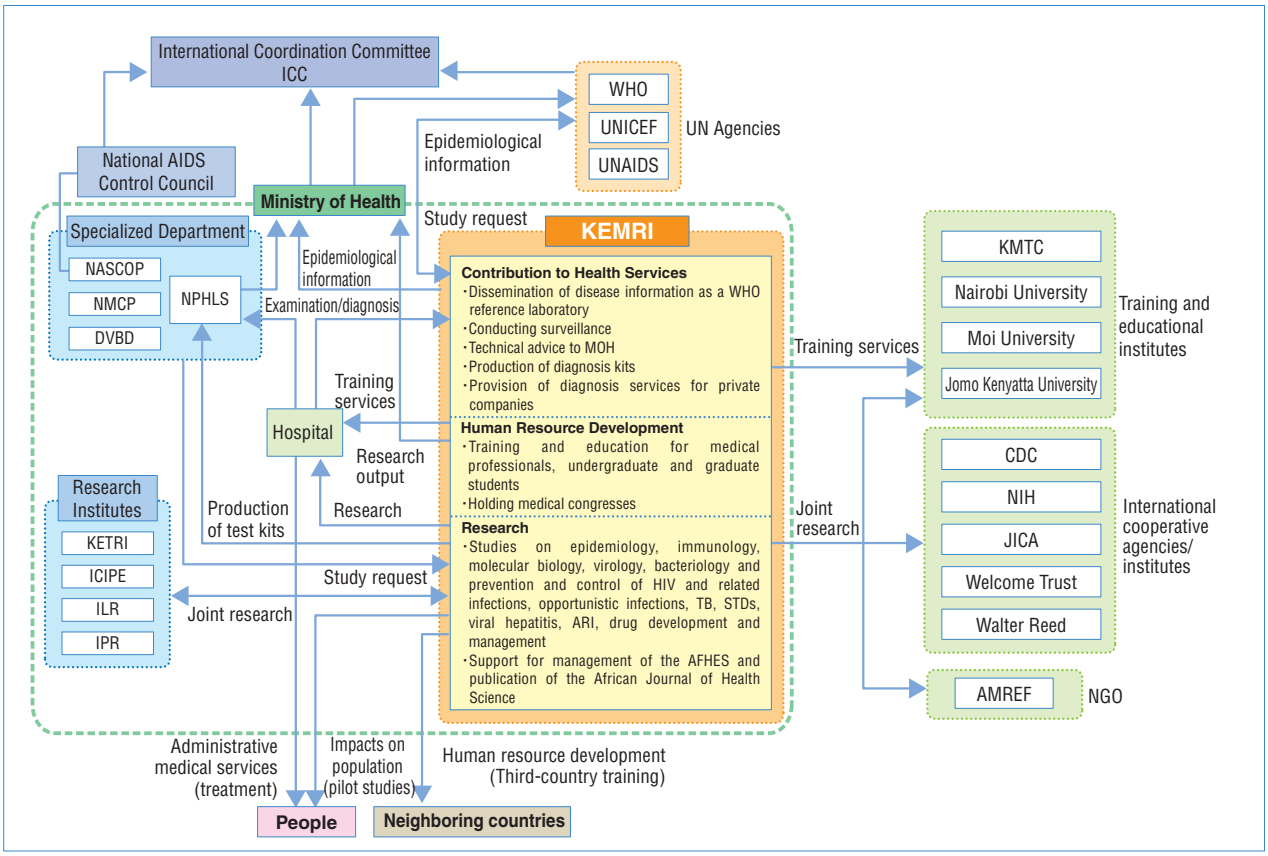
*Refer to the full report of 2004 Thematic Evaluation on Communicable Disease Control in Africa (viewable at http://www.jica.go.jp/evaluation/after/theme.html) for the whole content including the analysis results on NMIMR and Virology Laboratory and TB Laboratory of the UTH.

ing the Ministry of Health. The KEMRI is also involved in the operation of a non-governmental institute whose purpose is to promote health and science in Africa, namely, the African Forum for Health Science (AFHES), and as well as the publication of a medical journal, African Journal of Health Science published by the AFHES. For human resource development, the KEMRI accepts undergraduate students and graduate students from domestic universities and provides opportunities for practical training and research to take a degree as a training center. In addition, it operates the Institute of Tropical Medicine and Infectious Disease in collaboration with the Jomo Kenyatta University College of Agriculture and Technology, giving instructions to researchers on master's course and doctoral courses. The KEMRI also provides in-country and third-country training in infectious disease control for medical personnel domestically and internationally. As for health services, as a WHO reference laboratory as mentioned above, it conducts disease surveillance, disseminates information on the spread of various diseases domestically and internationally, gives technical advice to the Ministry of Health, produces hepatitis B test kits and other test and diagnostic kits, provides test and diagnostic services to private enterprises, and dispatches the staff to "studies for national preparedness in the event of major disease outbreaks" implemented by the Ministry of Health. The functions of the KEMRI as a research institute can be divided into three categories: research for individual diseases such as HIV/AIDS, malaria; human resource development including training for medical personnel; and contribution to health services such as information dissemination as a reference center and test and diagnosis.

Table 3-13 Functions of KEMRI in Communicable Disease Control

Functions	Activities
Research	Studies on the epidemiology, immunology, molecular biology, virology, bacteriology and prevention and control of HIV and related infections, opportunistic infections, TB, STDs, viral hepatitis, ARI, diarrheal diseases, malaria, Schistosomiasis, Leishmaniasis, Filariasis, intestinal parasites, drug development and management Support for the management of the AFHES and the publication of the African Journal of Health Science
Human Resources Development	Training and education for medical personnel, undergraduate and graduate students, holding medical congresses
Contribution to Health Services	Dissemination of disease information as a WHO reference laboratory, conducting surveillance, participation for the "studies for national preparedness in the event of major disease outbreaks" technical advice to the MOH, production of diagnosis kits, and the provision of diagnosis services for private companies

Figure 3-6 Relationship of Organizations Related to Infectious Disease Control in Kenya



b. Positioning of the KEMRI

The jurisdiction of the KEMRI was shifted from the Ministry of Research, Technical Training, and Technology, to the Ministry of Health due to the administrative reforms in 1999, consolidating its both position as a core research institute in infectious disease control in reality and in name in Kenya. The KEMRI not only pursues research on individual diseases as a medical research institute, but also dispatches the researchers to the infectious disease control program implemented by the Ministry of Health, having established a route to reflect the research outputs on infectious disease control. As a research base in East Africa, it is designated as a WHO reference laboratory for HIV/AIDS, polio, viral hemorrhagic fever, leprosy, leishmaniasis, antibacterial resistance, and bacteriology, and functions as a regional research institute for infectious diseases.

3) Outcomes of JICA's Cooperation

JICA's cooperation effects to KEMRI, with regards to how the cooperation provided by JICA so far has contributed to enhancing the function of the KEMRI as a research institute, are explained below.

a. Improvement in Research Capabilities of the KEMRI

The purposes of JICA's technical cooperation for the KEMRI that has been implemented continuously since 1979 were improvement of research capabilities of the KEMRI and human resource development in the medical field. The KEMRI has carried out joint research with the Centers for Disease Control and Prevention (CDC) of the US and Walter Reed since the initial stage of its establishment. The KEMRI has then improved its research capabilities with support from JICA and overseas research institutes, actively carrying out joint research. Some examples of joint research with overseas research institutes and the KEMRI in 2004 are shown in Table 3-14. Some of these research outputs are published in medical journals inside and outside the country. As mentioned above, the KEMRI has carried out a lot of research continuously in the field of infectious disease control, and its research capabilities are highly evaluated by overseas research institutes. Cooperation effects of JICA who put efforts into function enhancement of the KEMRI in the first stage are realized for the function enhancement of the KEMRI in this manner.

b. Infrastructure Development of the KEMRI

Japan promoted assistance to the KEMRI from two sides: software support to human resource development and hardware support to improvement in research facilities and equipment. It can be said that the research capabilities required for the KEMRI to conduct joint research with overseas research institutes have been cultivated through JICA's technical cooperation; however the research infrastructure required to carry out research itself including facilities and equipment have also been developed with Japan's grant aid. The KEMRI highly evaluates the development of these advanced facilities and equipment as well as JICA's technical transfer, which has enabled it to carry out joint research with overseas research institutes and has further improved its research capabilities. Japan's cooperation improves the research infrastructure from both technical cooperation and development of research facilities and greatly contributes to functional enhancement of the KEMRI as a research institute.

c. Enhancement of Research Implementation Capability

The KEMRI has succeeded in acquiring the research implementation capability required to expand joint research with overseas research institutes through Japan's technical transfer and facility improvement. The KEMRI can obtain grants for research from overseas joint research institutes thanks to its advanced research implementation capability, thus contributing to strengthening of financial ground. On the other hand, the research and development expense made up from grants for research from overseas research institutes and JICA's grant for operation increases wholly according to the rapid increase of grants for research from overseas research institutes. Consequently, the ratio of JICA's grant for operation to the entire research expense decreases from 11% in 1999/2000 to 5% in 2002/2003. Most of the research expense of the KEMRI is in joint research with overseas research institutes; however the secured budget required for joint research owes a great deal to improvements in research infrastructure by Japan. Japan's cooperation effects are seen not only in improved research capabilities but also the enhanced function of the institute on the financial side.

4) Role of the KEMRI in Infectious Disease Control and Future Relationship with JICA

Through a series of analyses based on the positioning, func-

Table 3-14 Examples of Joint Research by KEMRI

Overseas Research Institutes	Research Content
Centers for Disease Control and Prevention (CDC)	CDC conducts HIV/AIDS prevention and research at the Kisumu center in West Kenya in collaboration with KEMRI. The center, which has 200 staff members assigned from the KEMRI, is the largest CDC center outside the US. The headquarters of KEMRI is considering research concerning emerging infectious disease control.
Walter Reed Army Institute of Research, US	WRAIR conducts studies on the development of vaccines for malaria in cooperation with USAID and KEMRI.
Welcome Trust Foundation	The Welcome Trust has conducted epidemiological and clinical studies on malaria in Kilifi in Coast since 1989. Kilifi is the largest site of KEMRI, and has 600 staff members.

tions, and effects of JICA cooperation with the KEMRI in infectious disease control, the expected role of the KEMRI in the future can be summarized as follows in terms of three functions of research, human resource development, and contribution to health services: 1) The functions of infectious disease control comprising research, human resource development, and contribution to health services will be further enhanced through research and development, production, and dissemination of several blood testing kits, such as an HIV/AIDS testing kit, that can be produced at a low cost in Kenya, as a comprehensive medical research institute in Africa; and 2) The institute will continue to serve as a center for human resource development by implementing in-service training of medical personnel in Kenya and third-country training for surrounding countries centered on the ongoing Global Parasitic Disease Control Project and will expand its reference functions by establishing and expanding epidemiological databases on emerging infectious diseases such as HIV/AIDS and Ebola and information transmission as a core research institute in Africa in collaboration with the Ministry of Health.

JICA has implemented technical cooperation for the purpose of enhancing the functions of the research institute mainly for the research capabilities since the initial stage of establishment of the KEMRI. JICA's cooperation with the KEMRI is characterized by research and training concentrated on blood screening and parasite control. As for blood screening, in particular, the coordination of research and training allowed the test kits that were developed by the KEMRI and produced domestically to be disseminated nationwide. In addition, as one of the top research institutes in Kenya and a WHO reference laboratory, the KEMRI has greatly contributed to infectious disease control in Africa and served as an educational and training institute to develop medical professionals. The research activities have contributed to improvements in health for the people in Kenya through improvement of health services. It can be judged from these facts that the KEMRI has contributed to improvement of infectious disease control in Kenya and the research infrastructure which contributes to infectious disease control has been cultivated through JICA's cooperation. Meanwhile, the KEMRI already has sufficient capabilities as a research institute, and it is now time to examine if cooperation aimed at technical transfer meets the actual situation. Future cooperative relationship with the institute whose main activities are joint research with overseas research institutes must be reexamined to promote cooperation for the future.

(2) Noguchi Memorial Institute for Medical Research (NMIMR), and Virology Laboratory and Tuberculosis Laboratory of the University Teaching Hospital (UTH)

The evaluation results of cooperation for institutes other than the KEMRI, that is, the NMIMR and the UTH are overviewed here.

1) Noguchi Memorial Institute for Medical Research in Ghana

a. Outline of Cooperation

In 1968, the Overseas Technical Cooperation Agency (OTCA), the predecessor of JICA, started to dispatch experts to the Korle Bu Hospital (Ghana College of Health Services) for the purpose of promoting research on virology based on the request from the government of Ghana. After the completion of the facilities of the NMIMR with grant aid in 1979, technical cooperation provided at the Korle Bu Hospital by JICA was transferred to the NMIMR. In 1986, JICA started project-type technical cooperation titled the Noguchi Memorial Institute Project at NMIMR. Since then, JICA has continuously cooperated with the NMIMR for the purpose of improving its research capacity in infectious disease and parasite control over a period of 28 years up to the time when this study was conducted in 2004. Currently a Technical Cooperation Project, the West African Center for International Parasite Control Project, is underway. Meanwhile, the Japanese government supported the development of the facilities and equipment of the NMIMR through the execution of the Noguchi Memorial Institute Power Grid Development Project in 1988, and Noguchi Memorial Institute Rehabilitation and Extension Project in 1997.

b. Positioning and Functions of the NMIMR in Infectious Disease Control

The NMIMR plays the central role in infectious disease control in Ghana owing to its research outputs in the past and advanced test and diagnostic techniques. For example, in the research of drug resistance bacteria of malaria the NMIMR offered the government of Ghana an opinion to stop using chloroquine and shift to a new drug, and the government decided to adopt a new drug based on the opinion. Equipped with the best test and diagnostic technique and facilities, it operates as a national reference laboratory for HIV/AIDS and tuberculosis, an external quality control organization, and a WHO reference laboratory for Polio in West Africa. Though it is not under the direct jurisdiction of the Ghana Health Service, the Ghana Ministry of Health, which is the main body to execute infectious disease control, is positioned as an infectious disease research institute in infectious disease control in Ghana owing to its performance. The NMIMR not only feeds back research outputs to infectious disease control, but also develops human resources and provides health services, contributing to infectious disease control.

c. Outcomes of JICA's Cooperation

JICA has continuously implemented technical cooperation for the purpose of improving the research capabilities of the NMIMR since its establishment in 1979. After it was judged that

the NMIMR has sufficient research capabilities, capacity building of health/medical personnel involved in infectious disease control through training was added as the cooperation purpose. Through such cooperation, the NMIMR has grown to be one of the best research institutes in Africa. The NMIMR that achieved functional enhancement as a research institute through JICA's cooperation greatly contributes to infectious disease control in the country and in West Africa as a research institute and a reference laboratory, and also diffuses the research outputs to medical personnel inside and outside of the country by conducting in-country training and third-country training. These activities lead to improvement of health services in Ghana and its surrounding countries.

d. Role of the NMIMR in Infectious Disease Control and Future Relationship with JICA

The expected future roles of the NMIMR as a research institute for infectious disease control can be summarized as follows in terms of research, human resources development, and contribution to health services: 1) to maintain the strengthening of its research on infectious diseases that should be eradicated in West Africa and through Africa by promoting joint research with foreign universities and research institutes, as well as conducting leading research on infectious disease control in Ghana as a research institute equipped with advanced diagnostic techniques that are indispensable for infectious disease control through molecular level analysis and genetic analysis; 2) to serve as a center for human resource development as an executing agency for the in-service training of medical personnel in Ghana and third-country training for the surrounding countries, and to establish a position as a research base for infectious disease control in West Africa under the framework of the West African Center for International Parasite Control Project; and 3) to expand health services that lead to enhanced public health, including the quality control of vaccines, research on drug resistance in malaria, and information transmission as a reference laboratory through coordination with the Ministry of Health.

A series of JICA's cooperation activities for the NMIMR involved carrying out research to improve the infectious disease control conducted by the government, such as the distribution system of vaccines and improving test accuracy of infectious diseases. These research activities of the NMIMR are evaluated as having contributed to improving the health of the people in Ghana through the improvement of infectious disease control. The NMIMR has greatly contributed to improvement of infectious disease control in Ghana and the surrounding countries receiving cooperation from JICA including titer test of EPI vaccines, activities as a reference center for polio, and introduction of external quality assurance system of HIV/AIDS and tuberculosis tests. On the other hand, as research implementation capability of the NMIMR improves, joint research with overseas research institutes have become its main activities, and JICA's technical cooperation system aimed at technical transfer and its assistance for the NMIMR have been reviewed. The objective of JICA assistance is technical transfer, and it met the needs of the NMIMR in the initial stages of cooperation. However, today when the research capabilities of the NMIMR have improved and the enhancement of the independence of the NMIMR is the goal, JICA's assistance aimed at technical transfer does not always meet the actual situations of the NMIMR. It is concluded that a new cooperative relationship that treats the NMIMR as an equal partner is required in the future.

2) Virology Laboratory and Tuberculosis Laboratory of the University Teaching Hospital

a. Outline of Cooperation

JICA started the University of Zambia Medical School Project with the purpose of reducing infant morality from 1980 based on a request from Zambia. When this project was closed in 1989, the importance of prevention, diagnosis, and care for infectious diseases in infants was emphasized as a recommendation of the terminal evaluation of the project. In response to the request of the Zambian government which had received the recommendation, JICA launched project-type technical cooperation in infectious disease control, namely, the Infectious Disease Project, designating the UTH as an implementing organization, in 1989 and the HIV/AIDS and Tuberculosis Project is underway as of the point of this study. Virology Laboratory and the Tuberculosis (TB) Laboratory, which belong to the laboratory services department of the UTH, served as counterparts for these projects, and JICA has provided cooperation to strengthen research capabilities and organization system of these laboratories. Moreover, in order to develop the infrastructure for research activities, JICA installed Virology Laboratory in 1991 and TB Laboratory in 1997 through Technical Cooperation Projects.

b. Positioning and Functions of Virology Laboratory and TB Laboratory of the UTH in Infectious Disease Control

The laboratories of the UTH are positioned as public testing institutions under the jurisdiction of the Ministry of Health, and the research activities of the UTH are regularly discussed in a special committee composed of the Ministry of Health, the Central Board of Health (CboH), University of Zambia Medical School, and the UTH. Activities of Virology Laboratory and TB Laboratory of the UTH are also examined by this special committee, and the contents are in line with the policies of the government of Zambia.

Virology Laboratory of the UTH is designated as an intercountry reference laboratory for polio, and a national reference laboratory for HIV/AIDS, influenza and measles, and participates in surveillance of these diseases implemented by the Ministry of Health. TB Laboratory of the UTH serves as an

external quality assurance institution of the TB microscopy centers in Lusaka.

c. Outcomes of Cooperation of JICA

Both laboratories have worked to establish a national surveillance network for polio and measles through JICA assistance and have contributed to establishing the diagnostic capability for infectious diseases in Zambia, for instance, by conducting external quality assurance for HIV and tuberculosis tests. In addition, they contribute to infectious disease control with respect to health services, these through a series of activities as a base of human resource development and diagnosis, including training for medical personnel in regional laboratories, the diagnosis of specimens, external quality assurance, and so on. Virology Laboratory of the UTH serves as a national reference laboratory for measles and influenza, and as a WHO inter-country reference laboratory for polio even after termination of JICA's cooperation and plays an important role as a research institute for infectious diseases not only for the country, but also for the surrounding countries.

d. Role of Virology Laboratory and TB Laboratory of the UTH in Infectious Disease Control and Future Relationship with JICA

Through a series of analyses based on the positioning and role of the UTH Virology Laboratory and TB Laboratory, and effects of JICA's cooperation with the laboratories, the expected roles of the laboratories in the future as a research institute in infectious disease control can be summarized as follows in terms of research, human resource development, and contribution to health services: 1) to strengthen research on HIV and tuberculosis, which is a type of opportunistic infectious disease, at a time when the diffusion of anti-retrovirus treatment has become an increasingly critical issue, by adopting the global 3 by 5 Initiative (global target to provide three million people living with HIV/AIDS in developing countries anti-retrovirus treatment [ART] by the end of 2005) in Zambia, which faces HIV/AIDS as a national issue, in addition to its existing research on related diseases in the Expanded Program on Immunization; and 2) to hasten the provision of medical personnel dealing with HIV testing in provincial and county hospitals and VCT centers, which are voluntary counseling and experimental regional centers as part of human resources development for HIV/AIDS control; and 3) regarding contribution to health services, to establish an experimental and diagnostic system capable of contributing to HIV/AIDS control with expanded ART that is an anti-retrovirus treatment against HIV/AIDS, in cooperation with the research and human resource development mentioned above.

Virology Laboratory and TB Laboratory of the UTH are organizationally positioned as laboratories of an educational hospital of a university, and they are characterized as playing more of a role as testing institutions than the NMIMR and the KEMRI. In

The KEMRI that have grown to a core research institute in the region by collaboration of technical cooperation and grant aid

infectious disease control, more activities as a reference laboratory and a laboratory are conducted, as seen in their contribution to eradication of polio. In addition, in Zambia where the above-mentioned 3 by 5 Initiative was adopted, the role as a reference laboratory for HIV will be more important. JICA needs to examine the necessity of assistance on the hardware side and the software side so that each institution will maintain the reference function and contribute to infectious disease control continuously.

(3) Cross-sectional Analysis of Evaluation Results

1) Effects of Cooperation with the Research Institutes

Though the positions as a research institute in infectious disease control of the NMIMR in Ghana, the KEMRI in Kenya, and Virology Laboratory and TB Laboratory of the UTH in Zambia are all different, it was clarified that all three research institutes have contributed to infectious disease control through research, human resource development, and contribution to health services. It was confirmed that as a result of technical transfer and long-term infrastructure development by Japan, these three research institutes conduct research activities in line with the health policy as a base of infectious disease control not only for the nation but also for the surrounding countries, and the activities contribute to improvement of public health. The evaluation study found the following common factors leading to generation of effects in the cooperation with these three research institutes.

a. Collaboration with the Ministry of Health and Infectious Disease Control

Though the NMIMR is a semi-autonomous institution under the University of Ghana managed by the Ministry of Education, annual meeting is regularly held with the Ministry of Health. The KEMRI is positioned as a core research institute under the jurisdiction of the Ministry of Health infectious disease control, and Virology Laboratory and TB Laboratory of the UTH is positioned as a public testing institution of the Ministry of Health in infectious disease control, therefore, the route to reflect the research outputs on the national infectious disease control is sufficiently established. Despite different organizational positions as research institutes, they all contribute to infectious disease

control of the governments by dispatching staff to provide technical advice to health programs and committees implemented by the Ministries of Health beyond the framework of the research institutes.

b. Contribution as a Reference Laboratory and a Collaborating Center

As shown in the major contribution made by Virology Laboratory of the UTH to polio eradication in Zambia as a reference laboratory, all the three research institutes conduct testing and quality control in infectious disease surveillance as reference laboratories, and conduct tests and diagnosis which cannot be replaced by any other laboratories in the country and the surrounding countries as top referral.

c. Generation of Synergistic Effects by Technical Cooperation and Upgrading of Research Infrastructure

The research facilities and equipment of these three institutes were built and upgraded with support from Japan. Continuous implementation of technical cooperation has been combined with improvement of facilities and equipment essential for research activities with grant aid and technical cooperation projects and, as a result, research capabilities of these research institutes have improved as synergistic effects. The establishment of research infrastructure has made it possible to carry out joint research activities with overseas research institutes, leading to further improvement of research capabilities. Moreover, acquisition of grants for research also strengthens the financial basis.

d. Human Resource Development

All three research institutes provide technical training for medical personnel not only inside the countries but also for the surrounding countries and they broadly accept undergraduate and graduate students from universities inside and outside the countries as trainees. As an implementation base of third-country training for the surrounding countries, the NMIMR implements third-country training on diseases related to the Expanded Program on Immunization (EPI) in collaboration with the WHO even after termination of JICA cooperation. As a base for parasite control, the NMIMR and KEMRI function as a center for human resource development of the surrounding countries through third-country training through the West African Center for International Parasite Control (WASIPAC) and the Eastern and Southern Africa Center for International Parasite Control (ESACIPAC), respectively.

2) Recommendations for Future Cooperation for Target Research Institutes

Japan has continuously provided technical cooperation to the NMIMR, the KEMRI, and Virology Laboratory and TB Laboratory of the UTH over 20 to 30 years since their foundations. Cooperation from both sides of research infrastructure development and technical transfer has generated synergistic effects at all the research institutes, which have grown to be leading research institutes in Africa. As conclusion of the evaluation study, the future direction of cooperation for each institute is presented as recommendations below.

a. Strengthening Relationship as Development Partner

JICA has implemented technical cooperation for the purpose of enhancing the research capabilities of the institutes, which have been sufficiently fulfilled. For the future, an examination should be made of how to utilize the research capabilities of the research institutes as development partners in the health and medical sector in Africa. Each of the institutes provides technical advice to health committee and programs implemented by the Ministries of Health, and it should also be examined how to reflect the outcomes of JICA's technical cooperation directly on infectious disease control of these countries by strengthening the relationship with them as partners.

In JICA's long-term cooperation, many experts have been dispatched to these institutes from universities and research institutes in Japan. The researchers of the institutes in the partner countries also receive training at these universities and research institutes, deepening exchange between research institutes in Japan and Africa. For the future, it is required to strengthen the relationship as partners including partnership in the form of joint research and research consignment with these universities and research institutes in Japan, while respecting the independence of research institutes on the African side as much as possible.

b. Cooperation to Maintain Function as Reference Laboratories

The research institutes subject to this evaluation study greatly contribute to infectious disease control, including promotion of EPI-related disease control and ART (anti-retrovirus treatment for those living with HIV/AIDS) in the countries and in Africa as WHO reference laboratories or collaboration centers. Especially in Zambia, where the 3 by 5 Initiative of WHO/USAID was adopted, the function as a reference laboratory for HIV will be more important in the future.

It is important to maintain and develop the functions as reference laboratories of these research institutes continuously to implement infectious disease control in these countries smoothly. JICA is required to examine the necessity of assistance for hardware and software as necessary for these institutes to maintain the reference function and contribute to infectious disease control continuously.

c. Utilization as Training Centers

All the research institutes implement in-country and third-country training as a part of JICA's cooperation, and also nurture

medical personnel based on requests from the Ministry of Health and relevant agencies. According to an evaluation study of human resource development projects conducted by each institute and JICA overseas offices, the trainees highly evaluate the quality and it is judged that all the institutes sufficiently function as human resource development training center.

An issue that must be reviewed in future is how JICA will utilize the training functions of the NMIMR, the KEMRI, and the UTH. Possible utilization includes function as a training facility for other health projects implemented by JICA in Africa, support for training activities carried out independently by each institute, and consigning third-country training to these institutes as an implementation agency for South-South cooperation.

As for third-country training, as the NMIMR implemented third-country training of EPI diseases in collaboration with the WHO, support to promote joint implementation of each of the research institutes and overseas agencies can be one way to secure third-country training continuously.

On the other hand, Japanese research institutes and universities can also utilize the research institutes as a training facility for Japanese health personnel. It is expected that these research institutes in Africa that have received JICA's support and have deep interchange with Japan will be utilized effectively for development of Japanese researchers.

d. Strengthening Regional Network

JICA positions the NMIMR as a base for infectious disease control in West Africa, the KEMRI in East Africa, and Virology

BOX 9 Evaluation of the Target Countries by External Experts

For the Thematic Evaluation on Communicable Disease Control in Africa, evaluation of the target countries was also conducted by external experts with cooperation from the African Evaluation Association. These evaluators participated in the field study of the Japanese study team and independently conducted a survey. The summaries of the evaluation results are introduced below.

(1) Ghana

Summary of Evaluation Results by Dr. Anthony T. Seddoh (Manager, Health Systems Development Section, Policy Department, Ghana Health Service)

The NMIMR evaluated this time is under the jurisdiction of the Ministry of Education, Youth and Sport, Ghana Health Service (NHS), which is an implementing body of health services under the jurisdiction of the Ministry of Health, and the National Public Health Laboratory (NPHRL), which is also under the Ministry of Health and are not directly related in terms of administrative organization. However, they are in a mutually complementary relationship in national infectious disease control. The functions in diagnosis in infectious diseases of the NPHRL and its regional organizations, Public Health Laboratories (PHRL) in each region, are mainly limited to bacteria tests and virus check at basic level, whereas the NMIMR conducts advanced virus check and leading-edge research as an advanced research institute.

From the above-mentioned position in infectious disease control in Ghana, the NMIMR greatly contributes to infectious disease control from a technical aspect.

In fact, the evaluation results this time revealed that the priority research issues of the NMIMR have a close relationship to health and medical care programs implemented in the health sector in Ghana and Africa, regardless of the contents on infectious diseases or noninfectious diseases. The NMIMR is a research institute that has no rivals in virology and experimental technology in infectious disease control in Ghana and West Africa, and if the NMIMR makes policy recommendations focusing on how to support delivery of health services by the government of Ghana, more desirable outcomes will be brought about for promotion of infectious disease control. In this context, it is important for the NMIMR to enhance activities in the field of public health as shown in the West African Center for International Parasite Control Project, which is currently being implemented. However, since the NMIMR does not always have superiority in social science and the relevant areas that are required in this field, activities must proceed in cooperation with related organizations based on the situations.

(2) Zambia

Summary of Evaluation Results by Mr. Stephen L. Muyakwa (a member of the Zambia Evaluation Association)

The Virology Laboratory of the UTH, which has successfully improved its research capabilities as the results of long-term cooperation by JICA, is now designated as a reference laboratory by the WHO. This means that it has the responsibility to provide health services not only inside the country of Zambia but also for the surrounding countries. The fact that it has advanced research capabilities is known domestically and overseas and becomes a promotion factor for the UHT to establish cooperation relationship with other development partners in the fields of infectious disease control. Moreover, the research outputs generated by collaboration between JICA and the UTH are published as research papers in the country and overseas.

From the viewpoint of human resource development, researchers who have gained experience in research in fields such as tissue culture, serology, immunology, and molecular virology as a result of long-term technical cooperation participate in various health programs implemented by the government as committee members, providing technical advice. Virology Laboratory and TB Laboratory of the UTH have given instruction on testing skills for various medical institutes involved in infectious disease control, such as provincial and prefectural hospitals, through JICA's cooperation, thus contributing to improvement in laboratory diagnosis of infectious diseases. As mentioned above, it was clarified that cooperation by JICA contributed to functional enhancement of Virology Laboratory and TB Laboratory of the UTH, and it will be required to formulate cooperation in line with the actual situations in the UTH today.

Laboratory and TB Laboratory of the UTH in Southern Africa, and has provided cooperation for infectious disease control mainly through these bases. These three research institutes have established a testing system including the surrounding countries as a regional reference laboratory and an inter-country reference laboratory.

In the future, it is desirable to establish regional networks based on the three research institutes, and to promote South-South cooperation including the dispatch of third-country experts. From now on, support for ART and participatory approaches to regional public health are expected to become the main cooperation in the field of health. Examination should be made of how to promote cooperation in the health and medical field in Africa effectively by utilizing the personnel of these three research institutes experienced in research in these areas.

2 Program Evaluation (Basic Education Sector in Honduras)

2-1 Outline of Evaluation Study

(1) Background and Objectives

In order to improve project effects further, JICA has been working to enhance the program approach that combines cooperation projects strategically across cooperation schemes or sectors towards solutions of problems. As a part of such effort, by creating an implementation plan and trying out budget management in units of programs*, JICA is promoting greater sophistication of a project management system by program. In this context, the importance of evaluation to comprehensively examine the effect of a program and improve the program has been increasing.

In order to develop a program evaluation method based on past experiences in country-program evaluation, JICA looked into major methods used by major bilateral aid agencies and international organizations and examined program evaluation methods.

This method will incorporate the following three points when conducting evaluation.

1) In order to evaluate the appropriateness of cooperation as a means of increasing the effects towards solving problems, not only the consistency of the strategy of the JICA Program, but also the priority and positioning of the project in the strategy of the partner shall be confirmed.
2) Program evaluation does not simply accumulate individual projects, but also assesses coherency and relationships among components of the program with a focus on its strategic aspect.
3) Evaluation shall be conducted using the concept of contribution** based on coordination and collaboration with projects of not only JICA but also the concerned country, other agencies in Japan, and other donors.

In response to the above-mentioned survey result, the Basic Education Enhancement Program in Honduras was selected as the evaluation target, and the trial implantation of a program evaluation was determined. The reason for the choice of the program is that it was formed as a program with common goals from the initial stage of the formulation and the education sector, like the poverty and health sectors, is internationally so advanced in terms of program approach and sector wide approach (SWAP) that this evaluation may serve as a role model for other sectors.

The objectives of this thematic evaluation are to improve the evaluation method and put it into practical use through a trial evaluation on the Basic Education Enhancement Program in Honduras using the evaluation method proposed under these situations and then extract recommendations leading to improving the program and lessons that will serve as role models for future program approach.

(2) Program Subject to the Study

The Basic Education Enhancement Program in Honduras***, which was the subject of this evaluation study, aimed to enhance basic education (specifically, to lower the rate of grade repeaters or dropouts in primary education), and was composed of three program components as shown in Table 3-15.

JICA regarded this program as support for the Fast Track

* JICA defines "program" as a strategic framework to support the achievement of mid- and long-term development goals in a developing country (program purpose and an appropriate cooperation scenario to achieve it).

** As evaluation viewpoints for cooperation outcome, there are two concepts: attribution and contribution.
Attribution: A concept to prove precise causal relationships between a project of a specific aid agency and changes of development status in the partner country
Contribution: A concept to verify the plausibility of the causal relationships between the outcome aimed by an aid agency and the progress of development issue, which should be recognized separately and explicitly in advance
Generally speaking, a program sets a relatively high-level goal conducive to the developmental goal of the partner country and it is obvious that various factors other than the activities of one agency are complexly involved in achieving such goal. Therefore, the verification of attribution is generally considered difficult, and so a technique to conduct evaluation based on the concept of contribution, which includes involvement of other agencies toward development issues, is becoming a mainline stream for bilateral aid agencies and international organizations.

*** The Basic Education Enhancement Program has been expanded to include Japan's cooperation projects other than JICA projects (ex. grant aid, grant assistance for grassroots human security projects, counterpart fund) at the local ODA Task Force. This study focused on evaluation of the program by JICA projects among them.

Initiative (FTI)*, which is being implemented in Honduras in response to the international agreement, Education for All (EFA), (see 2-2 for detail of EFA-FTI Plan). The goal of the EFA-FTI Plan is to achieve perfect completion of primary education in the period between 2003 and 2015.

For the period of this evaluation target, the primary focus of the analysis was placed on years after 2002 when the formulation of the EFA-FTI Plan began. However, it was necessary to check the reconstruction process after 1998's Hurricane Mitch to confirm the donor coordination process. Also, in order to verify the formation process before the JICA program began, we needed to confirm the activities of experts and JOCVs dispatched prior to the program as related information; so we collected and analyzed information complementarily before 2002 as well.

(3) Framework of the Study

This study was implemented based on the following steps (Figure 3-7).

1) Confirmation of Positioning

First, the positioning of the JICA Basic Education Enhancing Program in relation to the development strategy (EFA-FTI Plan in this study) of the country concerned was confirmed. Since this evaluation study is a trial evaluation, the positioning of the underlying EFA-FTI Plan was also confirmed in relation to the development strategy in Honduras's education sector. Furthermore, in order to check the appropriateness of the approach on the Japanese side, consistency with country- and issue-specific aid policies as well as utilization of cooperation experiences were checked.

2) Confirmation of Strategic Aspect (Coherence and Outcome)

The study checked whether the JICA Basic Education Enhancement Program was planned and implemented with coherency, and verified what kind of outcomes the program has yielded. At the same time, understanding of the implementation process was attempted in order to analyze contributing and inhibiting factors.

3) Evaluation of the JICA Program Based on the Concept of Contribution

After checking the positioning and strategic aspect as described in 1) and 2) above, and examining the progress of development strategy (EFA-FTI Plan) in the partner country, which is the base for positioning, the contribution (plausibility) of the JICA program to the development strategy (EFA-FTI Plan) in the partner country was evaluated to draw out recommendations and lessons learned.

(4) Restriction in Implementation

From the viewpoint of evaluating the outcome of the program, it is desirable to evaluate it based on the results for both the development strategy of the partner country (EFA-FTI Plan) and the JICA program; however, both are still underway and have not reached the stages of evaluation based on results. As a result, this evaluation study did not focus on results; instead, based on the progress of the EFA-FTI Plan up to present, and the corresponding performance of the JICA program to the Plan, it was conducted as a mid-term evaluation on the plausibility of contribution to extract recommendations and lessons for the JICA program towards achieving the goal in the future.

(5) Evaluation Study Team and Period

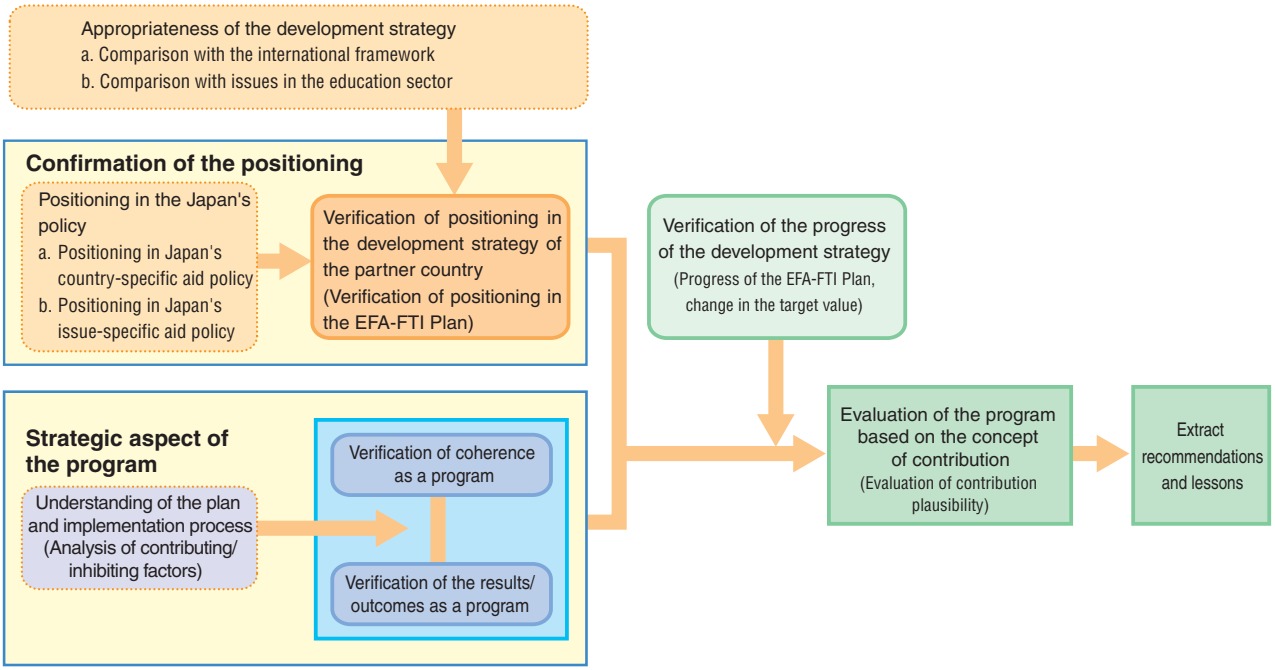
The evaluation study was organized and supervised by the Office of Evaluation of JICA and the study committee consisted of external experts (evaluation advisors) and JICA's related departments (Regional Department III, Human Development Department, Secretariat of Japan Overseas Cooperation

Table 3-15 Major Component Projects of the Evaluation Target Program

	Program Component	Implementation Period	Summary
1	**Support for re-training teachers** Technical Cooperation Project: The Improvement of Teaching Method in Mathematics	2003.4-2006.3	For the purpose of improving teaching skills of mathematics, guidebooks for teachers and workbooks for children were developed, and training for in-service teachers was implemented.
2	**Comprehensive efforts to strengthen basic education** Group dispatch of JOCVs: Model Project for Synthetic Reinforcement of Basic Education	2003.1-2006.2	For the purpose of addressing factors inside and outside of a school to lower the rate of grade repeaters and dropouts, teachers' training, guardian enlightenment, and support for combined classes were carried out. Extraction of activities that are applicable to other regions was another aim.
3	**Support for educational policy** Long-term experts: development plan Long-term experts: basic education enhancement	2000.5-2002.5 2001.12-2005.12	An educational environment survey was conducted to formulate a program/project. Cooperation coordination was promoted and educational policy support was given.

* In order to complete primary education for all children by 2015, a goal that is specified in Millennium Development Goals (MDGs) and the Dakar Framework for Action, countries that meet certain criteria are selected from developing countries which have had difficulty in achieving the goal without foreign aid so that for a given period of time donors can concentrate their support.

Figure 3-7 Framework of Evaluation



Volunteers). The report was prepared by field survey members based on the discussion in the study committee and results of the field survey. The evaluation study was conducted from February 2005 to August 2005 (field survey in Honduras was from April 29 to May 16, 2005).

Evaluation advisors

Koichi Miyoshi, Professor, Graduate School of Asia Pacific Studies, Ritsumeikan Asia Pacific University

Kazuo Kuroda, Associate Professor, Graduate School of Asia-Pacific Studies, Waseda University

2-2 Positioning of JICA Basic Education Enhancement Program

(1) Positioning in Japan's Policy

1) Country-specific Aid Policy for Honduras

Although the country assistance program* for Honduras has not been formulated, a policy consultation survey team was dispatched to Honduras in February 1999, right after Hurricane Mitch, and Japan determined infrastructure, health and medical care, agriculture and fishery, and education as priority sectors for aid, and we are still providing continuing cooperation in these four sectors as priority sectors up to this date.

In 1999, JICA made its Country Program for Hunduras and accordingly implemented cooperation for Honduras (The Program was revised in fiscal 2000 and 2002. Currently, the 2005 version is being revised). JICA's Country Program 2002 was structured so that a strategic project can be implemented with a focus on consistency with PRSP by corresponding the measures in aid priority sectors to the component of PRSP that Honduras made in 2001. Education is positioned in investment to human capital, which is one of the priority sectors in PRSP, and is prioritized in Honduras too. The Japan side also has been consistently implementing cooperation in this sector as the aid priority sector since the policy consultation.

2) Aid Policy in Education

Japan has provided education support for developing countries along with the international aid trend based on its own experience of nation building, which attached a high value to education development. Emphasizing the importance of education support in the ODA Charter (2002) and Mid-term Policy of ODA (1999, 2005), the government promotes cooperation in the education sector.

Since the World Conference for Education for All (EFA) in Jomtien in 1990, the EFA has been explicitly advocated as an international goal, and both developing countries and international cooperation donors have highlighted support for basic education. Previously, Japan had focused on higher education and vocational training in its cooperation. However in response to such a trend, active discussions have been held as to the ideal way and policy of education support centered on basic education in Japan and as a result, the Basic Education for Growth Initiative (BEGIN) was put together in June 2002. In this initiative, Japan promised to strengthen support for a developing country's efforts

*As a part of the measures to improve strategy, efficiency and transparency of ODA, the program is established in light of political, economic, and social situations of the aid receiving country after examining development plans and issues, and states Japan's aid plan for about five years after its establishment.

to promote basic education, and announced the policy of ensuring access to education, improving quality, and management as three priority areas.

In response to the above-mentioned international trend of attaching high value to the EFA and the policy of the Japanese government, which acts in concert with the international trend, JICA formed an education aid examination committee in 1990, from which time the direction of cooperation in the education sector has been examined by installing a task force and through study groups. Furthermore, JICA established Approaches for Systematic Planning of Development Projects: Basic Education in 2002, and the JICA Basic Education Development Project Evaluation Handbook in 2004, thus making efforts to expand cooperation in the education sector centered on basic education. In fact, the cooperation amount of the education sector reached about 20% of total aid in the beginning of the 2000s.

3) Positioning of JICA's Basic Education Enhancement Program in Japan's Policy

As discussed above, the Basic Education Enhancement Program is consistent with Japan's country-specific aid policy for Honduras and aid policy in basic education. Mathematics and science education were selected as the program components based on many years of experience in the dispatch of JOCVs in mathematics education in Honduras, as well as on its reference in the priority areas of BEGIN, thus demonstrating project formulation using experience and advantages. Furthermore, in April 2004, the ODA Task Force was organized and now discussions continue in priority areas and issues in assistance for Honduras as well as in how to proceed with future cooperation. In these discussions, Japan's aid directed at primary education (EFA-FTI Plan) in the education sector has been confirmed and along with the direction, not only JICA's Basic Education Enhancement Program, but also the whole basic education enhancement program of Japan, including grant aid and other projects by the Japanese government, have been implemented.

(2) Positioning in the EFA-FTI Plan of Honduras

1) Situation of Education Sector in Honduras

In Honduras, given that the lack of human resources is one of the inhibiting factors to economic growth, every previous administration placed a high emphasis on educational sector development in its development strategy. For the education sector, 7.2%* of the GDP and 30.5% of the national budget (2005) was allocated, which was the largest allocation among all sectors.

Concerning the current situation of the education sector in Honduras, in the primary education sector**, which the JICA Basic Education Enhancement Program targets, the rough enrollment rate in primary education improved over 10 years, from 94.5% in 1990 to 97.3% in 1999, whereas the completion rate was 68.5% in 2000, and the rate of completing primary education in six years is 31.9%, thus still showing low internal efficiency. For the completion rate up to the sixth grade, rural areas have a lower rate than urban areas. The completion rate of primary education for children whose family income level is among the top 20% is 86%, whereas that of those from the bottom 20% of the family income level is 39%, thus revealing the existence of regional and income disparities. With regard to inhibiting factors leading to such low completion rates, the EFA-FTI Plan has specified issues of low internal efficiency, quality and management of teachers, poverty and low interest in education, and the expansion of post-primary education.

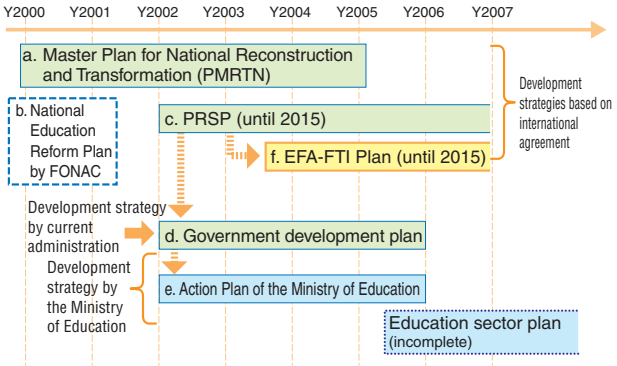
2) Outline of the EFA-FTI Plan

a. Positioning of the EFA-FTI Plan in Development Strategies in the Education Sector

In the situation described above, various development strategies have been established in the education sector. Even after Hurricane Mitch in 1998, the Master Plan for National Reconstruction and Transformation (PMRTN), the national education reform plan by FONAC (2000)***, PRSP (2001), the government plan under the Maduro administration (2002), Action Plan of the Ministry of Education (2002), and EFA-FTI Plan (2002) were made (Figure 3-8). These development strategies have been established by reflecting preceding strategies. The outline of these strategies is shown in Table 3-16.

The EFA-FTI Plan was made by the Ministry of Education after discussions with other donors for the purpose of full completion of primary education, since Honduras was designated as a

Figure 3-8 Flow Chart of the Development Strategy Related to the Education Sector



* This level of education budget is quite high internationally (the average among developing countries is 4.5% of GDP).

** Though basic education has now a nine-year system in Honduras, the first grade to the sixth grade in primary education was basic education when the JICA program began. Accordingly, JICA formulated the program focused on primary education from first grade to sixth grade. Therefore, though it is called the Basic Education Program, the target is primary education in basic education, i.e., from the first grade to the sixth grade.

*** This reform plan was created by FONAC (the largest civil organization created by an administrative order in 1995) as a proposal for the reconstruction from Hurricane Mitch. It does not fall into the category of development strategy, but because of its substantial influence on PRSP, we have included it.

Table 3-16 Outline of Development Strategies in the Honduras Education Sector

a. Master Plan for National Reconstruction and Transformation (PMRTN)	For the purpose of reconstruction following Hurricane Mitch, it was established in 1999 based on the Proposal for the National Reconstruction and Reform, and was approved at CG Meeting in Stockholm. Education is positioned as one of the six reconstruction visions. PMRTN calls for reconstruction, maintenance and management of infrastructure in cooperation with local communities, as well as educational reforms.
b. National Education Reform Plan by FONAC	A proposal made by the FONAC Education Committee through discussion with local government, citizens, education experts, etc. The proposal discusses a broad range of reforms in three subsystems: formal education, non-formal education, and informal education.
c. Poverty Reduction Strategy Paper (PRSP)	It was established in August 2001 by reflecting contents of the PMRTN and FONAC as well as by incorporating opinions of civil society. The poverty reduction strategy deals with six sectors, in which education is referred to as human resource investment. For the education sector, a broad plan, which includes pre-school to higher education, youth/adult education and educational administration, was made. Especially for pre-school, basic and secondary education, target values were set and measures to achieve goals of quality improvement and quantitative expansion were planned.
d. Governmental development plan under the Maduro administration (Plan de Gobierno 2002–2006)	It is a governmental plan established by the Maduro administration that started in 2002. The plan is positioned as the implementation plan of PRSP from 2002 to 2006. The government plan lists seven priority sectors in which the education sector is placed under poverty control and human development as its sub-sector. Like the health sector, it is given high priority as a factor to improve employment and income opportunity. This plan covers pre-school to higher education, has the purpose of quality improvement and quantitative expansion in pre-school, basic and secondary education, and includes a response to educational administration, all of which are common to the PRSP.
e. Action Plan of the Ministry of Education (Plan de Accion y Estrategia 2002-2006)	The Action Plan of the Ministry of Education was made by the Ministry of Education under the current administration, covering the entire education sector in line with three action policies specified in the governmental plan. The plan deals with concrete areas, including qualitative and quantitative expansion centered on revising curriculum and increasing classrooms.
f. EFA-FTI Plan (Fast Track Initiative Education for All Hondurans 2003-2015)	It was made by the Ministry of Education after discussing with donors, as Honduras was selected as a target country of the "Fast Track Initiative (FTI)" proposed by the World Bank. Because of its purpose of completion of primary education, the plan uses the completion rate, not the enrollment rate, as the indicator, and is composed of five components focused on pre-school and primary education.

target country of the Fast Track Initiative (FTI) proposed by the World Bank. Therefore, unlike other policies, this plan focuses on the completion rate instead of school enrollment rate, which agrees with the current shift of the main issue in primary education, from the enrollment rate to the completion rate as described previously in 1). A series of policies from PMRTN to PRSP and government plans, (Action Plan of the Ministry of Education) have a broad content which covers the whole education sector from pre-school to higher education as well as educational administration, whereas the EFA-FTI Plan covers only primary education. Thus the EFA-FTI Plan can be characterized as a plan that covers primary education with a focus on the completion rate.

b. Content of the EFA-FTI Plan

As described above, Honduras has several development strategies in the education sector, and particularly since 2003, the EFA-FTI Plan has become the center for all of the endeavors in the education sector.

As mentioned above, the EFA-FTI Plan aims for the full completion of primary education, under the following three goals.

- The rate of children who complete six-year basic education shall be 100%.
- The rate of children who complete six-year basic education in six years shall be 85%.
- The academic achievement of the sixth grade in mathematics and Spanish shall be 70%.

As an approach to achieving these goals, five components were established: the efficiency of basic education, teaching human resources with quality and efficiency, strengthening of pre-school education, equity and access to intercultural bilingual basic education, and rural education network. For each component, measures and goals were set (Table 3-17). The EFA-FTI Plan, which incorporates measures for various issues of basic education as mentioned in 1) of this section, mainly focused on measures dealing with in-school factors, and did not include any specific measures on socioeconomic problems (such as economic disparities) and the organizational capacity of the Ministry of Education. No particular priority order for specific measures in each component was set either.

3) Progress of the EFA-FTI Plan and the Status of Support Activities by Donors

a. Progress of Each Component and Donors' Support Status

◇ Component 1 (Efficiency of Basic Education)

According to the new curriculum, curriculum schedules, log books, and tests have been created for mathematics and Spanish for each grade from first to sixth. In these activities, the US provides support through a project that aims to set an academic achievement standard as well as to develop standardized mini tests according to the new curriculum. Also, textbooks for Spanish, teacher's manuals and student workbooks for mathe-

Table 3-17 Outline of the EFA-FTI Plan (by Component)

	Component	Indicator by 2015	Main contents
1	**Efficiency of Basic Education** (Entrance to the first grade at age six, and graduation from the sixth grade in six years)	•Sixth grade completion rate at age 12 (no grade repeating): 85% •Sixth grade completion rate: 100% •Sixth grade academic score (mathematics and Spanish): 70%	(1) Entrance to the first grade (2) Study standard and supporting materials (3) Efficient promotion (4) Leveling for pupils over-aged (5) M & E of internal efficiency (6) Help for dropout children
2	**Teaching Human Resources with Quality and Efficiency** (Improve the quality and efficiency of teachers' training and performance)	•200 school days (1,000 hours/year) •3,000 teachers with college degrees •1,500 support centers for teachers •Strengthening the management system for schools and teachers	(1) Training of pre-service teachers (2) Teachers placement (3) Training for in-service teachers (4) Teachers' performance and incentives (5) School and teaching resources management (6) School inspection and follow up
3	**Strengthening Pre-school Education** (Universalize pre-school education for five-year-old children)	•Enrollment rate for five-year-old children: 100%	(1) Coverage (2) Educational materials (3) Training for teachers, volunteer tutors (4) School inspection and follow up
4	**Equity and Access to Intercultural Bilingual Basic Educaion** (Guarantee the equity and access of the ethnic population to the intercultural bilingual education)	•Pre-school enrollment rate of five-year-old children: 100% •Sixth grade completion rate at age 12 (no grade repeating): 85% •Sixth grade completion rate: 100% •Third and sixth grade academic score rate (mathematics and Spanish): 70%	(1) Database (2) Institutionalization for intercultural and bilingual education (3) Adjustment of the basic national curriculum (4) Teachers' training and performance (5) Community participation (6) Special education
5	**Rural Education Networks** (Establish educational networks to secure educational access for children from age of five to 15 in rural areas)	•Enrollment rate for five-year-old children: 100% •Sixth grade completion rate at age 12 (no grade repeating):100% •Sixth grade completion rate: 100% •Third and sixth grade academic score rate (mathematics and Spanish): 70% •Network schools: 466	(1) Establish network (2) Network pedagogical model (3) A bonus for high quality and efficient grade advancement (4) Network management and supervision (5) School lunch and voucher (6) Network assessment and information system

(Notes) 1. Special education was added to Component 4 after it started.
2. In indicators for Component 5, "Sixth grade completion rate: 100%" seems to be a misprint of 85% as is the case for other components.

matics have been developed and distributed nationwide. For the development of mathematics textbooks, Japan has provided aid through PROMETAM, and for printing textbooks, Sweden (in 2005) and Canada (in 2006) has provided financial assistance.

◇ **Component 2 (Teaching Human Resources with Quality and Efficiency)**

In relation to training of in-service teachers, a comprehensive plan for teachers' training has been made, and since 2005 training towards education reform (new curriculum, school management, mathematics, and Spanish training) has been implemented in three steps. This training program is scheduled to be provided nationwide for 10,744 school principals.

In addition to Japan (PROMETAM), Spain and the World Bank provide support through the PFC program* for in-service teachers' training. Germany, on the other hand, provides support for pre-service teachers' trainig.

◇ **Component 3 (Strengthening Pre-school Education)**

Non-formal pre-school education has been organized in 10 key provinces for EFA, and selected volunteer leaders have received training (910 people). Also the educational material for non-formal pre-school education has been created with the support of the US and the developed material has been purchased with the aid of Sweden.

◇ **Component 4 (Equity and Access to Intercultural Bilingual Basic Education)**

This component is the most delayed among the five components. That is because the need for intercultural and bilingual education is not properly understood, and its concept as well as the measures for the EFA-FTI Plan are not clearly defined. Currently, consultants are developing the curriculum policy for special education and the evaluation manual. For special education, Spain provides technical and financial support, and the World Bank provides the loan.

◇ **Component 5 (Rural Education Network)**

As of May 2005, 33 networks have been built in four departments, and books were provided. Fifteen networks are scheduled to be organized in three departments by the end of 2005. Germany provides support for the activities related to these networks.

With the financial support of Sweden, there is a plan to dis-

*A special program for in-service teachers by national educational universities to grant associate and bachelor degrees

tribute school bags and study kits for children in schools in impoverished areas by the end of 2005.

Based on these activities, projects implemented by donors are summarized by component in Table 3-18. When you look at the Table, you can see that the aid to components 1 and 2 are central. It is also obvious from the fact that most (over 90%) of the government budget of Honduras in the education sector is allocated to the salary of teachers, and the project expense is mostly covered by the contribution of donors. The development of educational materials, development of teachers, and training dominate the components. In the EFA-FTI Plan, while financial aid by means of a common fund (from the World Bank, Canada, Sweden and Germany; Spain is now considering participation) is being conducted, project-type technical cooperation is also recognized as an aid modality, showing that each donor has provided cooperation in accordance with its respective modality. As mentioned in an interview with the donors, at the time of the survey an alignment to the plan was gradually carried out with the completion of ongoing projects and the formulation of new projects as the EFA-FTI Plan started in 2003. In the education sector, aid coordination has progressed through MERECE (donors meeting in the education sector) since reconstruction assistance from Hurricane Mitch, and a good relationship between the partner country and donors was a condition of the selection of target countries for the EFA-FTI Plan.

b. Progress Toward the Target of the EFA-FTI Plan

Changes in indicator values for the completion rate of the sixth grade, completion rate of the sixth grade under 12 years old, and academic achievement in mathematics and Spanish, which are the overall goals of the EFA-FTI Plan, were checked. Though the completion rate of the sixth grade under 12 years old and academic achievement in mathematics and Spanish have not reached the target level, the completion rate of the sixth grade was 75.4%, exceeding the target value for 2004 (75%), and the improvement trend was greater than the result for 2000 (69%).

In addition to the overall goals, nine indicators are set, not many of which have been achieved, but many show an improvement. Since not much time has passed since the EFA-FTI Plan started, and activities and progress for each component vary, currently there are variances in the progress of the EFA-FTI Plan. Some areas are making progress while other areas are not.

As the EFA-FTI Plan has been implemented, the organizational capacity of the Ministry of Education has been discussed, leading to planned measures for strengthening the organizational capacity in formulating the education sector plan.

4) Positioning of JICA's Basic Education Enhancement Program in the EFA-FTI Plan

In the Honduran basic education sector, donors are implementing projects in accordance with the EFA-FTI Plan. In such a situation, for the purpose of improving the completion rate as in the EFA-FTI Plan, JICA's Basic Education Enhancement Program extends cooperation with components 1 and 2, on which many donors' support concentrate, through in-service teachers' training and development of educational material by PROMETAM. PROMETAM deals with mathematics, which is a prioritized subject as included in the overall goals of the EFA-FTI Plan. Also, many coordination cases with other donors have occurred, including fund provisions by other donors in distributing educational materials developed by PROMETAM nationwide, as well as cooperation to spread training programs throughout the country. Furthermore, while Japan (PROMETAM) and Spain support training programs for in-service teachers, Germany supports training program for pre-service teachers, and for the verification of academic improvement by PROMETAM, the US has offered to develop study criteria and standardized tests, thus showing the establishment of a complementary relationship.

2-3 Strategic Aspect of JICA Basic Education Enhancement Program (Coherence and Outcome)

(1) Structure of JICA Basic Education Enhancement Program

The Basic Education Enhancement Program was formed based on the results of a survey (Survey on Educational Environment Related to Primary Education) that was implemented by experts in a development plan to formulate a basic education support project in 2000.* Since a low completion rate for primary education was an obstacle in human resources development, the survey analyzed various problems surrounding primary education.

The structure of the JICA Basic Education Enhancement Program, which was established based on the survey result, is shown in Figure 3-9. For the purpose of improving the completion rate for primary education (lowering the dropout rate), which is the issue in primary education in Honduras, the program's structure contains PROMETAM to improve the teaching skills of mathematics teachers (small trapezoid in the lower left of the figure) and the Model Project to address all other factors (remaining factors in the large trapezoid). The two projects (PROMETAM and the Model Project) in combination with long-term experts form the JICA Basic Education Enhancement Program.

When formulating the program, the initial idea was to implement it as one project that aimed to improve the completion rate.

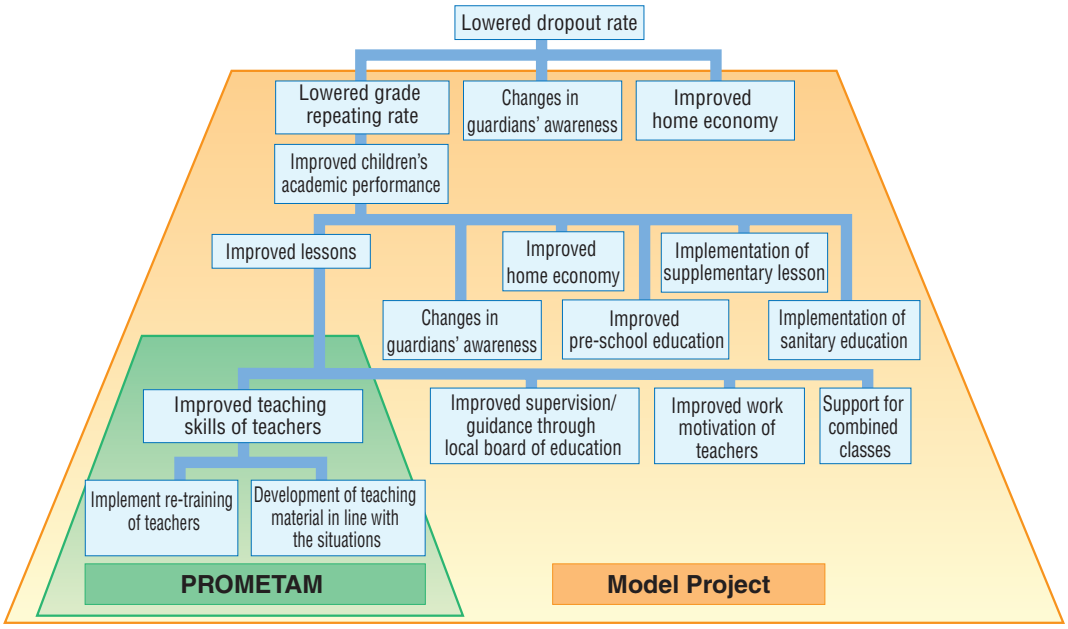
*The EFA-FTI Plan had not been formulated when the JICA program was formed.

Table 3-18 Governmental and Donors' Efforts for the EFA-FTI Plan

Component and its content		Donor	Content of aid
Component 1 Efficiency of Basic Education	(1) Admission to first grade	World Bank	Alternative basic education in rural and poverty areas (Comunitaria)
	(2) Academic standard and supporting materials	Government	Development of new curriculum
		Government	Participatory mathematics learning using radio
		JICA	**Development of educational materials for mathematics (PROMETAM)**
		US	Development of study standard and standardized tests (MIDEH)
		US	Alternative education by radio (EDUCATODOS)
		US	Improvement in mathematics ability by radio education (APREMAT)
		Canada	Printing of educational materials for mathematics
		Sweden	Printing of educational materials for Spanish and mathematics
		UNICEF	Strengthening literacy ability for lower grades
	(3) Efficient promotion		
	(4) Leveling for pupils over-aged		
	(5) M & E of internal efficiency		
	(6) Help for dropout children	Government	Radio education for uncompleted students
Component 2 Teaching Human Resources with Quality and Efficiency	(1) Training of pre-service teachers	Germany	Financial aid with training pre-service teachers (PRODES)
		Japan	**Facility development of teacher training schools**
		World Bank	Equipment provision to colleges and support for planning (Comunitaria)
	(2) Teachers placement		
	(3) Training for in-service teachers	Government/World Bank	Workshop for teaching methods
		JICA	**Training for in-service mathematics teachers (PROMETAM)**
		Spain	Training in the usage of mathematics educational materials, etc. (Louis Landa)
		Germany	Support for Spanish and science education through development of educational materials and teachers' training (FEBLI)
		Germany	Support for training pre-service teachers (PRODES)
	(4) Incentives to teachers		
	(5) School and teaching human resources management		
	(6) School inspection and follow up	US	Inspectors' training (Salvemos)
		US	Development of study standard and standardized test development (MIDEH)
Component 3 Strengthening Pre-school Education	(1) Coverage expansion	World Bank	Alternative education in rural and poverty areas (Comunitaria)
		Government	Organizing of CCEPREB, school lunch
		UNICEF	(Escuela Amiga)
	(2) Educational materials	US	Development of educational materials for radio learning (FEREMA support)
		Sweden	Procurement of educational materials
		Government/World Bank	Procurement of educational materials
	(3) Training of teachers and volunteers	Government	Training for volunteer leaders
		JICA	**Training of teachers for pre-school education (Model Project)**
	(4) School inspection and follow up		
Component 4 Equity and Access to Intercultural Bilingual Basic Educaion	(1) Building database		
	(2) Institutionalization of intercultural bilingual education	Government	Training for provincial technical team, incentives for children
		World Bank	Provision of educational material for special education schools (Comunitaria)
		UNICEF	Support for bilingual and intercultural education
	(3) Adjustment of the basic national curriculum		
	(4) Teachers' training and performance		
	(5) Community participation		
	(6) Special education	Government	Organizing core teachers' group
		Spain	Technical and financial cooperation in special education
Component 5 Rural Education Network	(1) Establishment of network	Germany	Technical support (Lempira, Intibuca Province)
		World Bank	Distribution of educational materials to the network schools (Comunitaria)
	(2) Network pedagogical model		
	(3) Bonus for grade advancement		
	(4) Network management and supervision		
	(5) School lunch and voucher	WFP	School lunch
	(6) Network assessment and information system		
	(7) Others	Sweden	Distribution of study kits to children in poverty areas
Others	Support for enhancing capacity of the Ministry of Education	Germany	Administrative and financial capacity enhancement of the Ministry of Education (ASED)
		Germany	Support for EFA and educational reform (PRODES)
		Canada	Support for organizational enhancement of the Ministry of Education, provisions of equipment
		Germany	Provision of equipment to the Ministry of Education
		US	Technical support for the teachers assigned to the provincial offices
		World Bank	Provision of equipment to EFA related departments, salary payment for staff
	Financial assistance (Common Fund)	Sweden	Common fund (signed)
		Germany	Common fund (signed)
		Canada	Common fund (signed)
		World Bank	Common fund (signed)
		Spain	Common fund (scheduled to sign)

(Source) The study team put together information and prepared this report based on 2005 POA of EFA-FTI Plan, documents and interviews concerning efforts of the government and donors.
(Note) The government fund includes expenditure from the national treasury and the common funds for the EFA-FTI Plan.

Figure 3-9 Structure of JICA Basic Education Enhancement Program



However, while the portion that aimed to improve the teaching skills of teachers (corresponding to the portion of the PROMETAM implementation in the figure) was expected to surely achieve certain results utilizing the experience obtained in the past mathematics project, the achievement of outcomes for the portion that corresponds to other factors (corresponding to the Model Project portion) was unpredictable due to the lack of experience and its experimental nature. Accordingly, it was decided to separate the PROMETAM portion and implement it as a Technical Cooperation Project. There was a discussion later on to implement the Model Project as a Technical Cooperation Project in a likewise fashion. However, as it was difficult to implement when considering the project scale in Honduras, the final decision was to implement it as a group dispatch of JOCVs.

(2) Outline of the Components of JICA Basic Education Enhancement Program

1) The Improvement of Teaching Methods in Mathematics (PROMETAM)

PROMETAM was implemented from April 2003 to March

Effects on Teachers/Pupils in Academic Performance Improvement by PROMETAM

Experts in educational evaluation were dispatched in November 2005 and a survey to verify the effects of the PROMETAM on teachers and pupils was conducted.* This survey targeted 128 teachers in four districts where training was continuously conducted from the start of the project, as well as 404 fourth-grade pupils whom those teachers were in charge of. Compared to the results of the academic test for teachers in 2002, though the targets of the test are not exactly the same as those of this survey, the survey result shows that the academic scores of the concerned teachers was 10 points higher on average (Figure 3-10). When looking at teachers in the Guinope district only, who took the test in both 2002 and 2005, more than a 24-point improvement was shown in their average scores (Figure 3-11). For pupils' academic performance, on the other hand, groups with high scores and with low scores were observed. The survey conducted cause analysis as well, and it was found that when certain conditions (such as teachers with high academic competency, a greater use of workbooks, etc.) are met, it contributes to improvement in pupils' performance. Taking these findings into account, the project will work on improving teachers' training that will lead to the improvement of the pupils' academic performance.

Figure 3-10 Comparison of Rate of Correct Answers in Teachers' Academic Tests

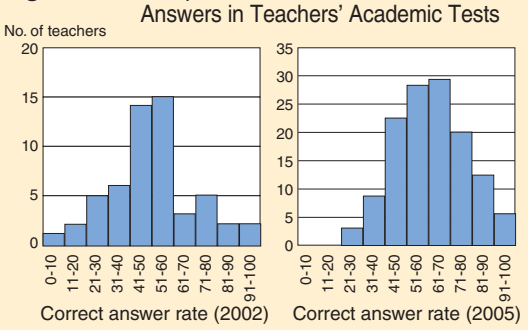
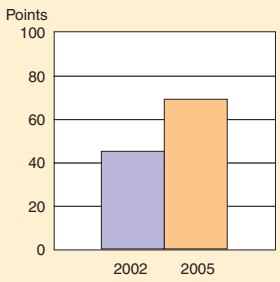


Figure 3-11 Teachers' Academic Test Result in Guinope District



*Job Completion Report of Experts in Educational Evaluation (November 2005)

2006 as a three-year Technical Cooperation Project that aimed to improve the teaching skills of mathematics under the overall goal of decreasing grade repeaters due to poor academic performance in mathematics.

The activities comprise the two pillars of development of teaching materials for primary mathematics and training for in-service teachers. For the development of teaching materials, based on the lessons learned from a mistake made that materials were not developed in line with the national curriculum during activities of JOCVs, a teacher's guidebooks in mathematics as well as workbooks for children were developed in accordance with the curriculum. For training in-service teachers, JOCVs provided direct guidance to teachers as a part of the PFC program where teachers can acquire college degrees in five provinces. Also in this training program, based on the lesson learned from past activities of JOCVs, it was positioned as part of an official public program to secure an incentive for the participation of in-service teachers.

As for teaching materials, though due to a change in the national curriculum after the project started the developed materials had to be reviewed, teachers' guidebooks and children's workbooks from the first grade to sixth grade were completed. Since PRSP targeted compulsory education from the seventh to ninth grade, teaching materials for seventh to ninth grade children are being developed by local staff with the help of Japanese experts. For teachers' training, a total of 462 people completed the training for the first to the fourth grade, and the training for the fifth and sixth grades was scheduled to be completed by November 2005.

Out of these outcomes, certain impacts have been created. During the field survey, it was confirmed that teachers who completed the PROMETAM program practiced systematic teaching. According to interviews with the directors of the local ministries of education and school principals, teachers learned to check pupils' responses while carrying out their classes. Also, the workbooks developed in the PROMETAM have been adopted as government-designated material and about 1.27 million copies have been distributed since May 2005 (at the same time, the teacher's guidebooks were designated by the government too, and about 36,000 copies have been distributed). For the printing of those materials to be distributed nationwide, Sweden bore the cost, which was highly appreciated as a good example of aid coordination. Following the national distribution of those teaching materials, Spain has been planning nationwide training on how to use them. The factors that lead to the expansion of outcomes of the PROMETAM are: 1) high quality materials were developed based on the experience of the JOCV Program; 2) the materials were developed in accordance with the Honduras curriculum; and 3) the training program of the PROMETAM was integrated as part of official public training.

2) Model Project for Synthetic Reinforcement of Basic Education

The purpose of the Model Project is to take a comprehensive approach to various factors that inhibit improvement in the rate of grade repetition and dropouts inside and outside of school in order to provide children with developed basic education and to spread the approach extracted during the process to the provincial and national levels in order to contribute to the solution of issues. Because of this purpose, this project is experimental in that it develops approaches that are applicable and sustainable in other districts and regions.

In order to achieve the above-mentioned purpose, components such as teachers' training, improvement of teachers' motivation, support for improving combined classes, enlightenment of guardians, and support for teaching material development were set, and the project was implemented as a group dispatch of JOCVs from February 2003 for a three-year period. As mentioned previously, it was decided to implement the Model Project as a group dispatch of JOCVs because of the project scale in Honduras; senior JOCVs were dispatched to activity districts (Oropoli and Guinope) as program officers in early 2003. Following the dispatch of senior JOCVs, the persons in charge in each district shifted from experts in basic education enhancement to senior JOCVs, and since then the experts' involvement in the Model Project has been conducted through the overseas office.

As the Model Project initially placed priority on the volunteers' autonomy, which is a characteristic of the JOCV Program, the project's outcome management as well as handover to successors were not completely efficient. Thereafter, in response to the mid-term evaluation survey in November 2004 and discussion with JOCVs, it was decided that activities would be carried out for the purpose of extracting model activities that are applicable nationwide and, consequently, activities that place a priority on continuity began.

Currently, model activities are being extracted with due consideration being given to the local needs. Prospective activities such as class observation, open classes, and calculation cards are being implemented. From now on, the activities must be verified to make a manual and examined more precisely in the El Paraiso Province, the current project site, before being deployed nationwide.

3) Support for Educational Policy

In the educational policy support sector, two long-term experts have been dispatched to coordinate aid and formulate educational projects. These experts were involved on various occasions with the JICA program and the Honduras basic education sector such as formulating program, promoting aid coordination, etc. thus playing an important role in the JICA program through their activities. The expert in aid coordination, in particular, served as the chairman of MERECE (donors' meeting in the

education sector), contributing to the formulation and implementation of the EFA-FTI Plan. This made the Basic Education Program, which was made prior to the EFA-FTI Plan, fill a clear position under the EFA-FTI Plan, and, as previously mentioned, play an important role in realizing aid coordination in the PROMETAM. These experts had experience as JOCVs in the Honduras basic education sector, which gave them sufficient knowledge of the host country and the specialty and helped them perform those specialized activities.

(3) Strategic Aspect of JICA Basic Education Enhancement Program

1) Coherence of JICA Basic Education Enhancement Program

In past JICA programs, a clear program purpose was not set and component projects were nothing more than a group of projects in the same sector; and in many cases a complementary relationship among components was not sufficiently considered as a scenario towards achieving the purpose. In order to enhance a program approach, JICA has defined a program as "a strategic framework to assist developing countries in achieving mid- and long-term development goals (program purpose and an appropriate cooperation scenario to achieve them) and has decided to carry out a program accordingly. To that end, a coherent viewpoint concerning clear purpose setting and selection/relationship of components leading to the achievement of the purpose has become very important.

The JICA Basic Education Enhancement Program in Honduras, which is the target of this evaluation study, was, as previously described, formed under the common goal of lowering the rate of grade repeating as well as the rate of dropout in primary education. It was planned in consideration of the complementary relationship between two projects—PROMETAM (a Technical Cooperation Project), which is focused on improving the teaching skills of mathematics, and the Model Project (dispatch of JOCVs) to address other issues. Even though these two projects were combined to aim at one common goal, it was difficult for these two projects alone to achieve the purpose of lowering the rates of grade repeating and dropout, requiring support from the government of Honduras and other donors to achieve the given purpose. Also, this program was not designed to achieve the goal through direct collaboration of the two projects, but with a complementary approach. This means that the PROMETAM is implemented as intensive cooperation on a specific and narrowed down issue (teaching skills of teachers), whereas the Model Project addresses various issues in a broad spectrum, showing different outcome levels and achievement prospects. Furthermore, project sites were selected separately in the two projects, indicating that the selections were not made based on consideration for the collaboration of the two projects.

2) Outcome of the JICA Basic Education Enhancement Program

In assessing the outcome of the program, it is necessary to check the outcome of the components of the program, as well as the feasibility of achieving the program purpose, which includes the outcome of the components. The program purpose can be set at various levels in the process of achieving the goal of the partner country's development strategy, depending on the program. In the case of Honduras, the program purpose coincided with the EFA-FTI Plan, which was the base for positioning. Therefore, discussion about the final outcome of the JICA program (whether the completion rate has improved) directly leads to discussion about the progress of and contribution to the EFA-FTI Plan. A detailed analysis on the final outcome of the program (achievement status of the EFA-FTI Plan) will be presented in the next chapter, and here mainly the outcome of each project will be discussed.

Generally speaking, a program purpose is often difficult to achieve through JICA's activities alone, so it is important to consider cooperation with other Japanese related agencies and donors in implementing the activities. In the case of the JICA Basic Education Enhancement Program, which was the target of the evaluation study, the PROMETAM, one of the components, as described before, has succeeded in disseminating the effects, such as distribution of teaching materials and deploying training nationwide, through the cooperation of donors in the outcome of the project (development of teaching materials and teacher training). The background of this success is that the PROMETAM was positioned along with the EFA-FTI Plan, and brought clear outcome as a Technical Cooperation Project so that the effectiveness of the project was recognized by other donors through aid coordination. On the other hand, the Model Project is at the stage of extracting model activities and has shifted to a JOCV program; so it has not yielded a clear outcome as in the case of the PROMETAM at this moment. Furthermore, since it is more like a trial, it is not positioned in the context of the EFA-FTI Plan. Though some international NGOs talked about coordination, full-scale coordination with other donors and nationwide deployment still has to be discussed.

2-4 JICA Program's Contribution (Plausibility) to the EFA-FTI Plan

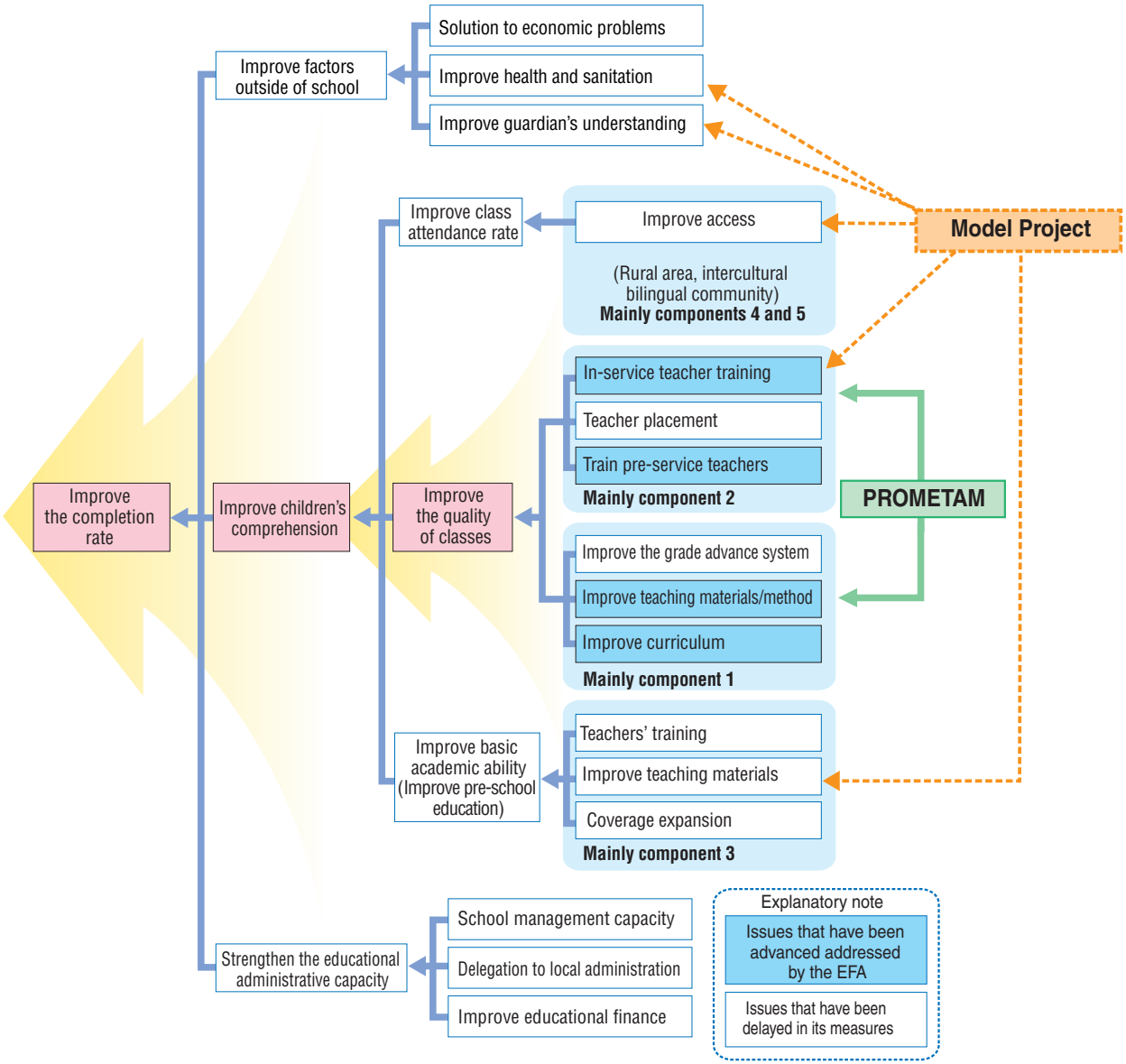
The method of this evaluation study entails: 1) examining whether the JICA program has been able to get involved in the priority sector with consistency, as well as the strategic character of the development strategy in the partner country; 2) examining whether the JICA program has been planned and implemented with coherence and what kind of outcome and impact it has yielded; and 3) evaluating the contribution of the JICA program while taking the progress of the partner country's development

strategy into consideration. In order to look at the contribution of the JICA program to the EFA-FTI Plan from its position in the partner country's development strategy and its strategic aspect and the progress of the development strategy, the flow of contribution for each component to the improved completion rate and its relationship with the JICA program was conceptualized as shown in Figure 3-12.

Among these issues, activities related to improving the quality of classes that corresponds to components 1 and 2 in the EFA-FTI Plan are relatively advanced. The PROMETAM, which is a component of the JICA program, is also engaged in the development of teaching materials and in-service teachers training in these components, where outcomes of JICA's activities and those of other donors are combined, leading to higher-level outcome.

In order to raise the plausibility of accomplishing the ultimate purpose, i.e. the improvement of the completion rate, not only the activities of components 1 and 2, which are related to the improvement of the lesson quality, but also activities of other components that have not advanced yet need to be promoted while checking the level of their importance. Under such a situation, the Model Project responds not only to components 1 and 2, but also components 3 and 5, which are not sufficiently advanced yet, as well as some factors outside school. The Model Project is expected to yield a higher-level outcome in combination with the existing outcome by clarifying the positioning of the Model Project in the EFA-FTI Plan and expanding the outcome. From now on, the Model Project is scheduled to examine model activ-

Figure 3-12 Conceptual Flow Chart of the Process to Contribution



* This conceptual chart shows a process leading to contribution and does not necessarily reflect accurately causal relationships to achievement, nor an achievement status.

ities in detail and proceed to the stage for dissemination. In order to disseminate and expand the outcome, a package program of the PROMETAM and the Model Project for dissemination can be used and the plan for addition and improvement of school buildings and distribution of teaching materials, all of which are being examined in the ODA Task Force, can be combined to promote the expansion of the outcome as Japan's program.* Furthermore, expansion in not only cooperation from JICA and Japan, but also coordination with other donors as in the case of the PROMETAM may be considered as an option.

Thus, by expanding the outcome of the components of the JICA program, the plausibility to achieve the goal of the EFA-FTI Plan and the contribution of the JICA program can be expanded.

In addition, educational administration, which has not explicitly provided comprehensive measures in the EFA-FTI Plan, was indicated as a problem in a joint evaluation of the EFA-FTI Plan. It has become clear that it is necessary to cope with this problem in order to increase the plausibility of achieving the ultimate goal, which is the improvement of the completion rate. Needless to say, it is difficult to address all these remaining issues (even if activities of not only JICA, but also other donors are included); therefore their impacts need to be watched during the monitoring of the progress of the EFA-FTI Plan and, at the same time, measures need to be added where necessary regarding the issues that have a large impact. Based on this recognition, some donors have already come up with additional measures to deal with educational administrative capacity. JICA also needs to examine the direction of the program, including deciding whether to deal with issues outside of the EFA-FTI Plan, which are not included in the focus of the program.

2-5 Recommendations and Lessons Learned

Based on the evaluation results, the following recommendations and lessons learned were extracted from three viewpoints: 1) recommendations to the JICA Basic Education Enhancement Program in Honduras; 2) lessons learned towards improvement of future JICA programs; and 3) lessons learned about the program evaluation method.

(1) Recommendations to the JICA Basic Education Enhancement Program in Honduras

Concerning the JICA Basic Education Enhancement Program in Honduras, the following recommendations were extracted in terms of the management system of the program and the future direction of the program.

Recommendation 1:

It is desirable to install a manager who supervises the entire program.

The JICA Basic Education Enhancement Program in Honduras was initially assumed to be a program, but it was not managed as a program sufficiently at the implementation stage. Even though PROMETAM and the Model Project were implemented separately and produced an outcome, the two projects have been developed differently within the program. However, in order to connect respective outcomes to the achievement of a higher-level outcome in a program that is implemented under one goal, it is desirable to conduct a centralized management, for example, by installing a program manager. Installing a program manager will be helpful to form a common understanding of program progress among people concerned (experts and JOCVs, etc.).

Recommendation 2:

Clarify the purpose of the Model Project and a scenario that shows how it will be connected to the solution of the ultimate issues

The purpose of the current Model Project is to extract activities that can be role models, and is structured to cope with all factors other than what the PROMETAM deals with. However, in order to verify and disseminate the extracted model in the future, it is desirable to clarify issues to be coped with as the model, how to systematize those activities, how to scale up their outcome, and how to contribute to a lower rate of dropout.

Recommendation 3:

Make an ingenious plan to ensure that the outcome of the program will reach children who are the ultimate beneficiaries

The PROMETAM has been producing outcome by developing teaching materials and conducting training for teachers. However, in addition to the need for strengthening the organizational capacity of the Ministry of Education and economic issues, Honduras is in the unfavorable situation where classes are held for only half of the 200 school days in a year due to strikes and meetings of teachers, and teachers tend to lack a sense of responsibility concerning the low academic ability of children. It is thus necessary to find a way to motivate teachers to make a commitment to raise the academic ability of children in class. To do this, an ingenious plan is needed to make sure the outcome of the program will reach children who are the ultimate beneficiaries, for example, using mass media and organizing events, including advertising the outcome of the PROMETAM.

Recommendation 4:

Pay attention to present explicitly the effectiveness of the PROMETAM developed materials continuously in the forum of aid coordination in order to secure the budget for the continuous printing and distribution of the teaching materials and training for teachers

*As the ODA Task Force is examining a Basic Education Enhancement Program not only with JICA but also with all of Japan, coordination with grant aid programs is actually discussed as well.

The teaching materials developed by the PROMETAM were distributed nationwide with financial support from Sweden, and as a part of Spain's cooperation the training program on how to use the materials has begun on a nationwide scale. In this way, the project expanded beyond the target areas of the PROMETAM and the possibility to contribute to a higher-level goal has increased. However, with regard to future printing and distribution of the teaching materials (for 2006, aid by Canada has been decided), and implementing the training program for teachers, it is considered difficult for the Ministry of Education to allocate its own budget to bear the cost. Accordingly, it is necessary to consider the utilization of the collateral fund for grant aid and secure funds from other donors towards the continuous distribution of materials and implementation of the training program.

(2) Lessons Learned towards Improvement of Future JICA Programs

1) Lessons towards Improvement of Program

In order to improve future JICA programs, the following lessons were extracted in terms of program purpose setting, scenario (a process to reach the achievement of the purpose, selection and coordination of the components of the program, etc.), and implementation.

a. The program purpose shall be set with a clear timeframe and scenario to reach the achievement of the purpose after comprehensively considering the partner country's development strategy for addressing the target issue and other donors' support status.

To formulate a program, it is indispensable to clarify the program purpose first. After systematically grasping the current status of the issues in question in the partner country and considering the partner country's development strategy for the issues, as well as the support from other donors, the content and level should be examined before setting the program purpose. At that time, it is very important to examine the target period and the scenario in order to achieve the program purpose. In other words, while the JICA program's purpose is to contribute to the partner country's development strategy and a specific program under the strategy, the period setting and scenario to achieve the purpose vary depending on whether the purpose of a JICA program is the same as that of the partner country's strategy/program (when setting the same goal with the partner country's development strategy and program from the viewpoint of the alignment, the scenario to achieve the purpose should include consideration of the partner country's efforts and aid from other donors in relation to the strategy and program).

Since the partner country can have multiple development strategies at different levels and by different actors, JICA needs to examine the positioning of the respective strategies and its contents before making a careful selection of a strategy that the JICA program will support. At that time, an internationally advocated development strategy, which forms the base for aid coordination of donors, will be a good option.

b. Aid coordination is an effective tool to scale up the outcome of a JICA program.

The advantage of the program approach is to be able scale up the outcome by combining a set of projects strategically. In this regard, collaboration with Japan's other ODA projects as well as JICA projects and aid coordination with other donors will be an important viewpoint in formulating a scenario for a program. Therefore, not only to avoid duplication of projects but also to prompt collaboration with other projects and aid coordination with other donors to achieve subsequent and substantial outcome, it will be important to consider scenario formulation and program implementation involving other actors.

c. When selecting the components of a program, multi-faceted viewpoints need to be considered.

Though it depends on the level of the program purpose, in general, it is difficult for JICA projects alone to address all issues that have to be solved in the course of achieving the purpose. Therefore, it is necessary to select an approach that seems to have the highest possibility of solving the issue in providing cooperation. The selection needs to be made from a multi-faceted viewpoint based on consideration of: 1) the situation of the issue in the concerned sector; 2) the experience of Japan's cooperation and political priority sector; and 3) cooperation status of other donors, and then make a selection.

d. When planning the components of a program, the scheme needs to be examined in line with the purpose to be achieved and selected.

JICA provides cooperation in the forms of development study, Technical Cooperation Project, dispatch of experts, and the JOCV Program, and each scheme has its own characteristic. Technical Cooperation Projects allow for relatively large-scale and concise cooperation using the expertise of experts in many cases. The JOCV Program has the advantage of grasping grass-roots local needs and expanding the effect to larger areas. Therefore, when forming and implementing a program, a method that fits the best for achieving the purpose needs to be selected after understanding the characteristics of the scheme.

Left: Classroom scene of the PROMETAM, which emphasizes student-oriented lesson
Right: Study material developed by the PROMETAM

e. The activity area should be selected strategically based on the scenario.

Generally speaking, a JICA project is usually implemented in a specific geographical area, and JICA or other donors spread the outcome of the project nationwide. Therefore, the activity area where a program (project) is implemented must be selected and the selection should be conducted strategically based on the scenario with due consideration given to collaborative and complementary relationships between projects.

f. Install a program manager in order to manage the outcome of a program

As mentioned above, the implementation of a program requires the establishment of a program purpose in the same direction with the partner country's government and other donors, as well as program management in order to connect the outcome of the project to a higher level. While project management is management to achieve the project purpose, program management requires management of program structure (portfolio), including launching and coordinating new projects (occasionally, reviewing projects with low need) to connect the outcome of the JICA project to a higher level, based on the understanding of the partner country's development strategy system, issues, and other donors' activity status. For this reason, it is desirable to install a program manager.

2) Other Lessons

Other lessons for the project level are as follows.

a. When setting components of a program, be sure to incorporate activities and outcome into the local system

In order to increase the outcome of a program, it is important to assure that the outcome of the components of the program will be sustained and the effect will expand. In this regard, sustainable development is given greater priority. For this purpose, as in the case of Honduras where the training program of the PROMETAM was implemented as part of public training, it is important to incorporate the activities and outcome of the project into the system of the partner country.

b. To avoid the ill effects of political change, establish an implementation system with a risk consideration

In developing countries, changes in administrations may renew the implementation system of a project (program). Therefore, in order to secure sustainable development, it is important to keep in mind the establishment of a project implementation system including a politically neutral implementation organization that will not be easily influenced by the effect of a political change. PROMETAM included a National Pedagogical University in implementation organizations to minimize the ill effect of the regime change, which provides a foundation for bringing a consistent effect.

(3) Lessons about the Program Evaluation Method

Through this trial evaluation, the characteristics of this evaluation and important points have become clear. Following are the main points.

a. In selecting the development strategy to position the program, the situation of the partner country needs to be fully understood and the selected development strategy needs to be verified where necessary.

Through the trial of this evaluation, the effectiveness of considering and evaluating the positioning of the JICA program in the development strategy of the partner country was confirmed. However, when selecting the development strategy of the partner country that will form the base for positioning, it is important to grasp the relationship with other development strategies, verify the corresponding relationship between the issues and the development strategy, and compare it with the global development strategy in order to grasp the characteristics of the development strategy, such as the range of the target sector and the issues to be dealt with.

b. To verify the position, it is necessary to analyze and verify it from a broad perspective, such as the intention of the partner country's government, the situation of the issues, and the cooperation status of other donors.

Quite a few developing countries have no priority in their development strategy activities. In such a case, confirming the priority order of the positioning requires analysis and verification from different viewpoints, such as the intention of the partner country's government, the situation of the issues, and the cooperation status of other donors. Though it is possible to analyze the priority order from the status of the budget distribution, in developing countries, the government budget is often small (compared to the fund of the donors), which may make the checking of the priority order difficult. In such a case, the situation of the partner country and the work load of the evaluation study need to be examined simultaneously.*

c. Select the evaluation implementation timing and evaluation implementation system strategically

The evaluation of a JICA program can take place during the implementation, at the time of termination, or at the same time of the evaluation of the partner country's development strategy. The important thing is to utilize evaluation methods flexibly, depending on the timing and the objective. It is assumed that the program evaluation will be conducted by the implementation (administrative) department of the program, but the role of the overseas office that knows the local situation inside out is very important for the implementation of evaluation, and it is feasible for the overseas office to implement evaluation by adding experts and intellectuals in the sector concerned.

*In the case of Honduras, the majority of the government budget is personnel cost, making it hard to grasp the priority order. Additionally, other donors' projects were often implemented across components of the EFA-FTI Plan, requiring a large amount of work to grasp budget distribution by component/activity.

BOX 10 Summary of Other Thematic Evaluations

In fiscal 2004, in addition to the thematic evaluations introduced in Part 3, JICA started Thematic Evaluation in Economic Partnership and Synthesis Study of Evaluation in Higher Education, which were continuously implemented in fiscal 2005. Those two evaluations are summarized as follows.

Summary of Economic Partnership

In East Asia, since the late 1980s, the promotion of trade and investment has been a driving force for its economic development, and recently the ASEAN countries are not only seeking adjustment and harmony in the trade and investment system, but also accelerating their move towards regional economic integration and an economic partnership agreement (EPA), including a free trade agreement (FTA). While the trade and investment environment in East Asia has been substantially transformed and economic partnership has been accelerated, trade capacity development (TCD) in the trade sector of developing countries is regarded as being more and more important.

Since the 1980s, JICA has provided Indonesia, Thailand, the Philippines, and Malaysia with technical cooperation in the trade sector centered on TCD, such as a trade training center, which is a project-type technical cooperation (currently, Technical Cooperation Project).

With this background, for the purpose of verifying JICA's cooperation effect for TCD in those countries, as well as obtaining lessons for promoting more effective activities for TCD in other countries, JICA started a thematic evaluation in Economic Partnership by subcontracting to a joint team of Hiroshima University and the Mitsubishi Research Institute in February 2005. This evaluation study regards capacity in the trade sector as social capacity (capacity of the whole society composed of the corporate sector, government sector and so on), and reviews and analyzes technical cooperation that JICA has provided in the four countries since 1980s in a cross-sectoral manner. In its analysis, the development process of the social capacity has been classified into three stages—system-making stage, system-working stage, and self-management stage—in line with the progress of capacity formation in government and corporate sector in the partner countries, and past cooperation has been verified from the following four viewpoints.

a. Consistency between the development stage of each country and JICA assistance
b. Coherent with the trade aid policy regarding each trade sector, and collaboration with related agencies (JETRO, JBIC, etc.)
c. Consistency with the development policy of each developing country
d. JICA's contribution to the TCD of the partner countries, including respective government and business sectors.

From now on, the founding of this analysis will be organized in such a way that recommendations and lessons can be extracted for more effective cooperation in the economic partnership sector.

Summary of Higher Education

In recent years, there is a globally active movement of re-acknowledging the importance of higher education in the development of developing countries as evident from the UNESCO World Conference on Higher Education (1988), and the report called Higher Education in Developing Countries: Peril and Promise made by the World Bank and UNESCO (2000). Since there is a limited number of institutions in developing countries that can contribute to national development, this movement advocates the idea that higher education institutions will play an important role in effecting mid- and long-term national development as the "base of intellect" through the creation, dissemination, and implementation of the intellect.

JICA has provided substantial cooperation in higher education and technical education that will directly concern economic activities and technological development, especially in Asia and Africa, from the viewpoint of supporting human resource development in developing countries. Based on the aforementioned new movement, JICA is expected to provide not only cooperation for education and human resource development, but also cooperation with activities based on knowledge and information that higher education institutions possess, such as research and study, and activities for social contribution.

With such a background, JICA launched Synthesis Study of Evaluation in Higher Education in fiscal 2004 to clarify the issues and lessons for conducting effectively higher education assistance with such recent movement in mind through the analysis of recent representative higher education projects. This study focuses on universities, which are expected to be the "base of intellect" among higher education institutions, and organizes and analyzes target projects along with three key functions: improvement of educational activities, improvement of research function, and practice of social activities.

In the evaluation study, target projects have been categorized in terms of function, and the impact and sustainability of each project has been verified based on the results of document surveys, field surveys, and questionnaire surveys with universities. In particular, in order to improve educational activities, cases such as Jomo Kenyatta University of Agriculture & Technology Project in Kenya, with which JICA provided many years of cooperation, have been analyzed from the viewpoint of how JICA's cooperation contributed to the development of excellent human resources in the respective sectors. In order to improve research function, cooperation such as the Research Center for Communication and Information Technology (ReCCIT), King Mongkut's Institute of Technology, Ladkrabang (KMITL) has been examined to assess the improvement of the research capacity of the institute and the degree of utilization of the research output. With regard to the practice of social activities that are gaining greater importance as a new function of higher education institutions compared to the first two functions, the study discusses the comprehensive activities of the university with the use of its expertise to solve problems that the community and the people have, using cases such as Sokoine University of Agriculture Centre for Sustainable Rural Development: SCSRD in Tanzania. In addition to discussion of these three functions, the study attempts to analyze compound projects with a set of functions and projects that aim to establish a network among regional universities as a new trend in recent years, such as African Institute for Capacity Development (AICAD) in Kenya and the ASEAN University Network/Southeast Asia Engineering Education Development Network (SEED-Net) Project.

Based on the results of the above analysis, outcome and issues of JICA's higher education projects will be comprehensively discussed to extract lessons that will contribute to future cooperation in the sector.