

Follow-up Study (Development Study Impact Assessment) Evaluation Study Report

October 2000

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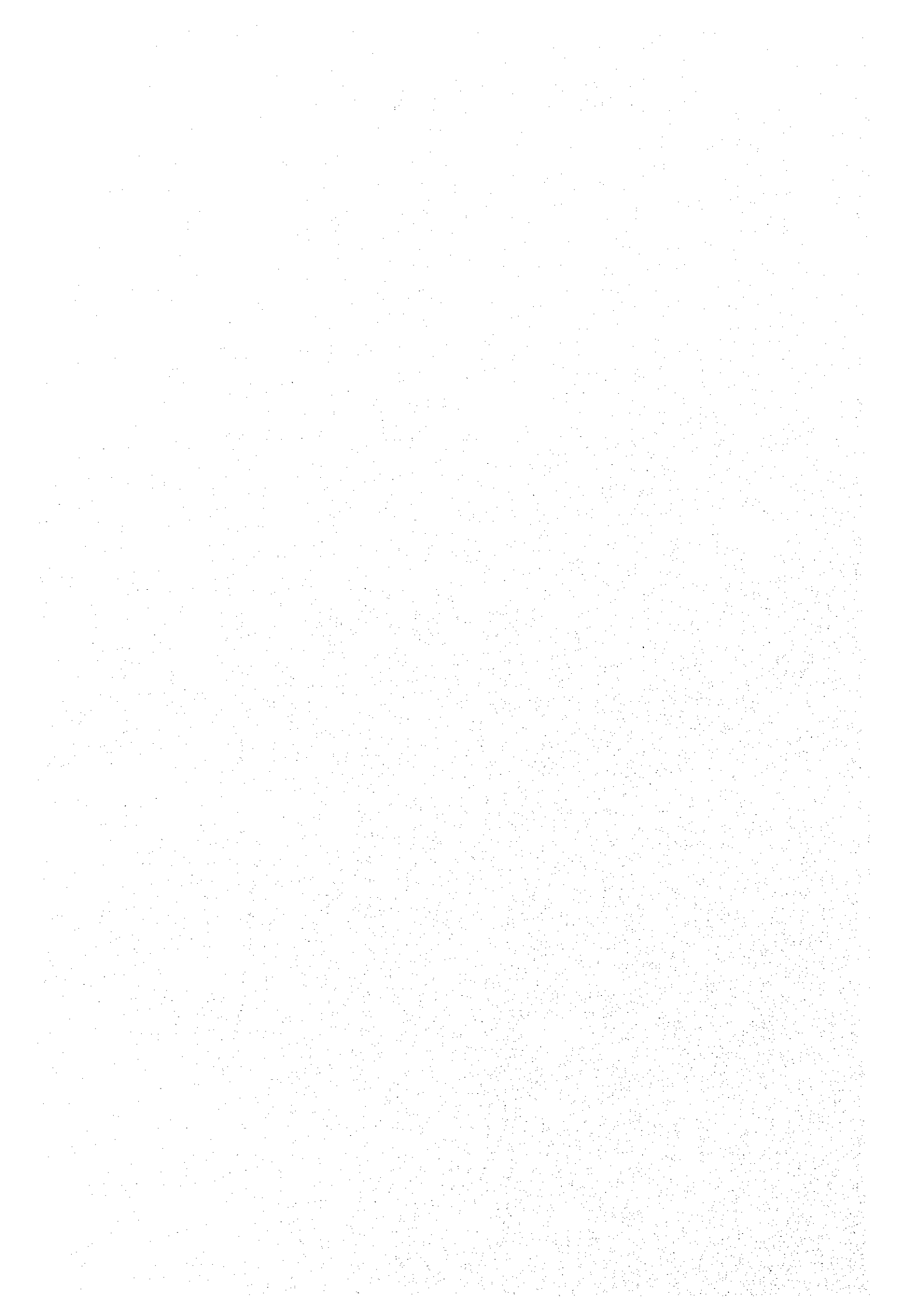
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Follow-up Study

(Development Study Impact Assessment)

Evaluation Study Report

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Japan International Cooperation Agency

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Preface

The Japan International Cooperation Agency has carried out numerous development studies as part of its technical assistance for social and economic development in developing countries.

Development studies are usually completed with the compilation of study results submitted to the government of the recipient country. Yet, since these studies constitute a preliminary stage of a project, they can truly contribute to further development of the recipient country only if the project's achievements are utilized and made commercially feasible through effective technology transfers.

Primary responsibility for utilization and commercial applications of development studies lies with the government of the recipient country; study results and proposals can be utilized in a multitude of ways, and it is usually difficult to obtain adequate information from the recipient country. For these reasons, our department has conducted follow-up studies (i.e., studies on the updated status of the projects for which development studies have been performed) since 1989, seeking to properly understand and organize the conditions by which study results are utilized and commercially applied.

At the same time, with the aim of achieving qualitative improvements and more effective implementation of development studies, we have also evaluated development studies on a trial basis in collaboration with the Social Development Study Department, as part of follow-up studies. Studies conducted last year covered social development areas in Thailand, Indonesia, Paraguay, and Bolivia.

In the current fiscal year, evaluation studies have been conducted for the total of nine irrigation-related projects in Thailand and the Philippines. These evaluation studies are based on PDM and an evaluation method utilizing grids with five evaluation items (Efficiency, Effectiveness, Impact, Relevance, and Sustainability).

For the evaluation of development studies, there are many aspects that can be improved, including the establishment of scopes of evaluation and evaluation methods. We are committed to delivering more systematic evaluations by incorporating opinions and suggestions kindly proffered by various parties concerned.

The evaluation studies for this document have been compiled by the International Development Center of Japan.

October 2000

Ryuzo Nishimaki
Managing Director
Agriculture, Forestry, and Fisheries
Development Study Department

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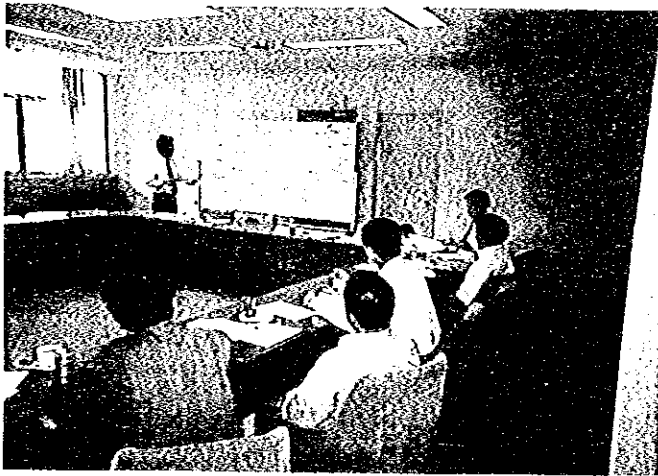
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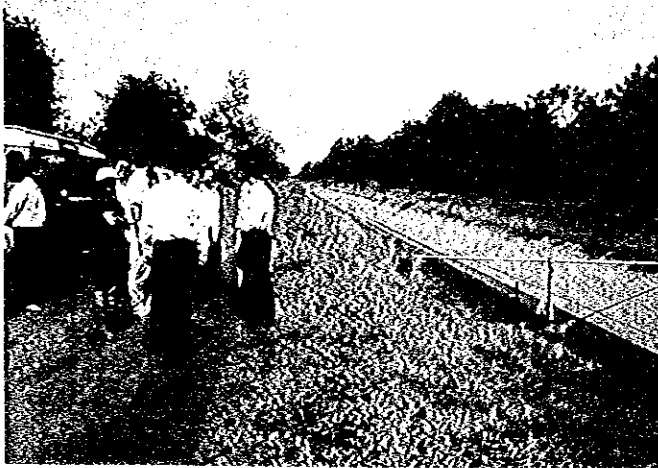
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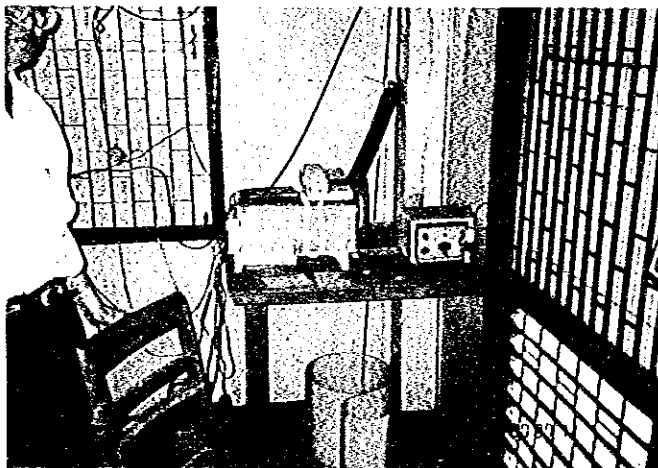
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Thailand
Session for explaining evaluation method at
RID



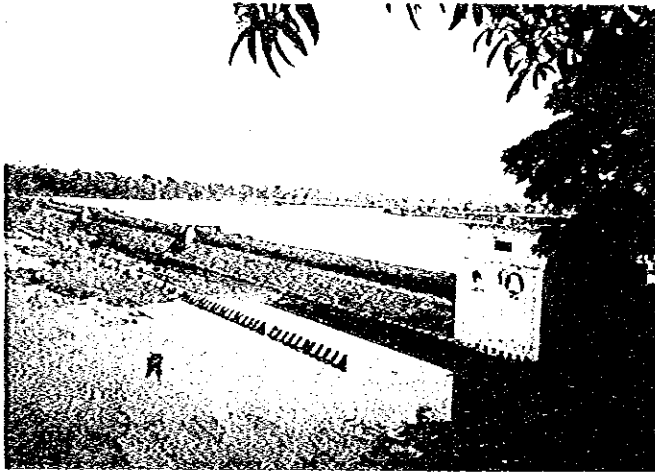
Thailand
(Kamphaeng Sean Irrigated
Agriculture Development Project in the
Mae Klong River Basin)
Visit t the Kamphaeng Sean district



Thailand
(Water Management System and
Monitoring Program in Chao Phya River
Basin)
The Bang Sai monitoring station
constructed based on the monitoring-and-
communication system improvement
project that was proposed in the program



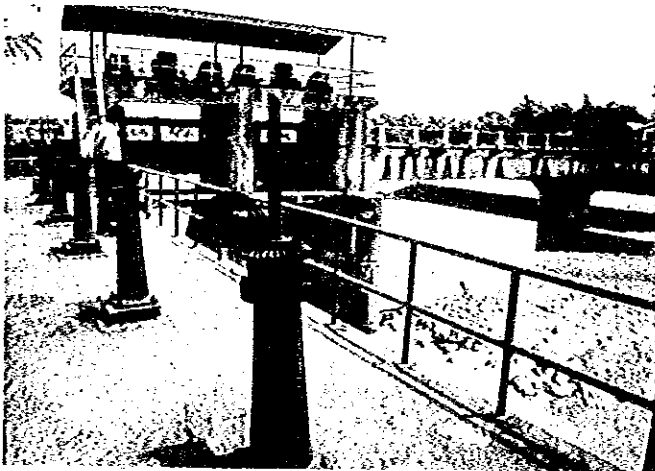
Thailand
(Water Management System and
Monitoring Program in Chao Phya River
Basin)
The Monitoring and Communication
system at the Memorial Bridge monitoring
station. The station was constructed
based on the monitoring-and-
communication system improvement
project that was proposed in the program.



Philippines
(Improvement Project for the Operation & Maintenance of National Irrigation System (AMRIS))
Bustos Head-works constructed in the target area of the study above.



Philippines
(Improvement Project for the Operation & Maintenance of National Irrigation System (AMRIS))
Irrigation facilities in the target area of the study above.

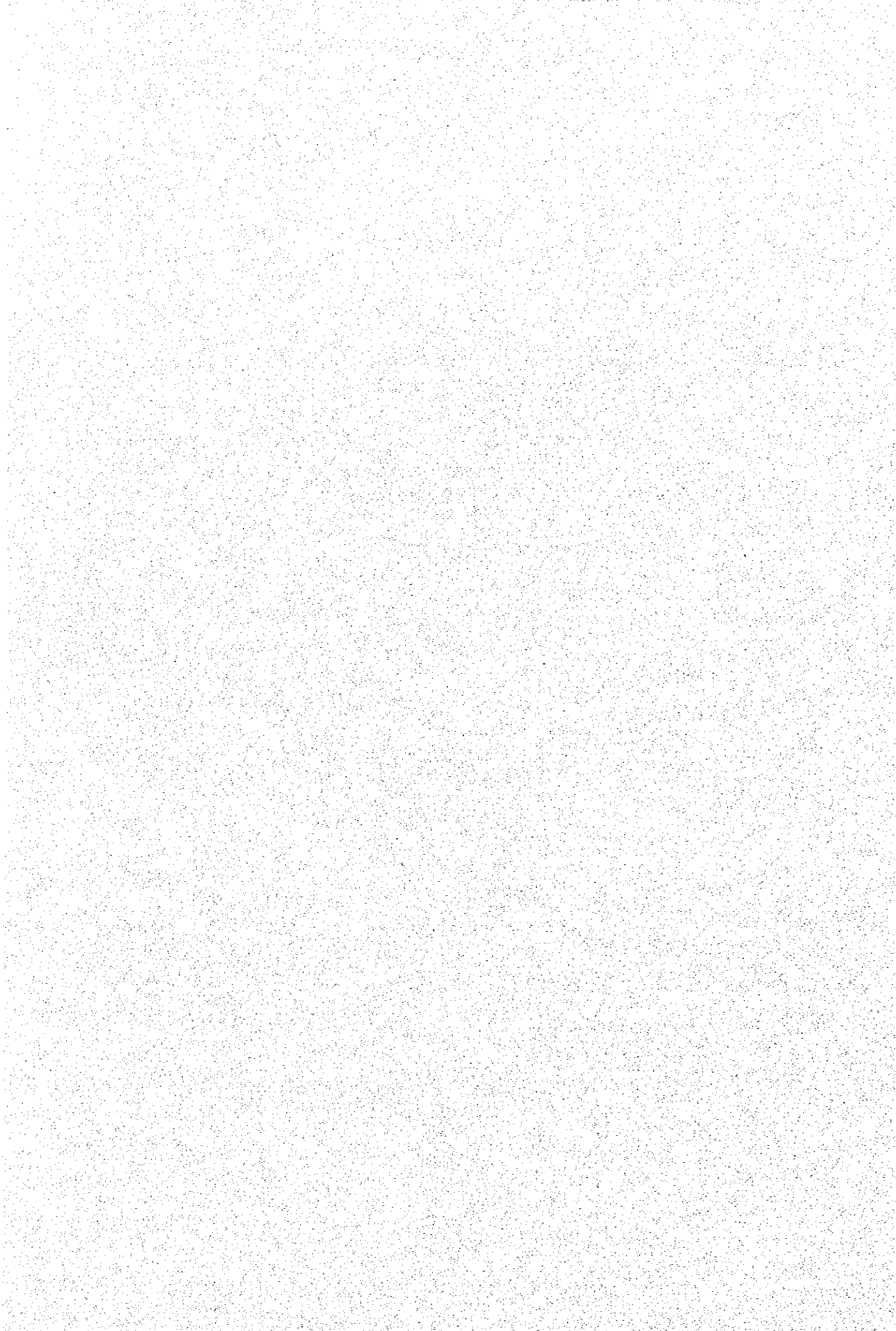


Philippines
(Ilocos Norte Irrigation Project)
Solsona dam (head-works) constructed by implementation of the project (Phase I)



Philippines
(Ilocos Norte Irrigation Project)
Part of the outskirts farm field facilities operating under the irrigation system that was improved by implementation of the project (Phase I)

Chapter 1: Study Overview



Chapter 1: Study Overview

1-1 Study Objectives

As more transparency becomes required for ODA projects, evaluation has been regarded as a focal point for development studies. Follow-up studies have been conducted to track the operational status of development studies from a standpoint of post-facto supervision. In addition, more comprehensive evaluations have recently been initiated as well, which include links with technical cooperation, grant aids, and loan aid projects, mainly by the Evaluation Monitoring Office (currently, Office of Evaluation and Post Project Monitoring, Planning and Evaluation Department). These evaluations seek to communicate the actual status of development studies more systematically.

At the same time, independent evaluations of "development study", which is one of the cooperation forms, were initiated on a trial basis last year by the Social Development Study Department. It is thus necessary not only to accumulate evaluation results, but also to establish evaluation methods. Against this backdrop, the current studies have been implemented to achieve the following objectives:

- 1) By evaluating development studies, to elicit lessons from evaluation results so as to deliver qualitative improvements in future development study projects in the same sector.
- 2) By implementing development studies, to review five areas of evaluation (efficiency, effectiveness, impact, relevance, and sustainability) so as to improve the quality of evaluation methods.

1-2 Evaluation/study team members

The members of the evaluation team are as follows:

Supervision: Hideo Osawa

Deputy Director, Planning Division, Agriculture, Forestry and Fisheries Development Study Dept., JICA

Evaluation methods: Katsuhiko Hoga

Deputy Director, Office of Evaluation and Post Project Monitoring, Planning and Evaluation Dept., JICA

Evaluation methods: Kazunori Horiguchi

Assistant Chief and Researcher, International Development Center of Japan

Evaluation methods: Yoshio Aizawa

Researcher, International Development Center of Japan

1-3 Countries, fields, and projects to be evaluated

The following evaluation studies cover nine agricultural-irrigation projects/plans in Thailand and the Philippines (four in Thailand and five in the Philippines). The study projects or plans have been selected from among those which were subject to development studies performed under different conditions, so that studies of these projects can be evaluated from diverse and macroscopic perspectives.

The charts below indicate study projects and their central locations.

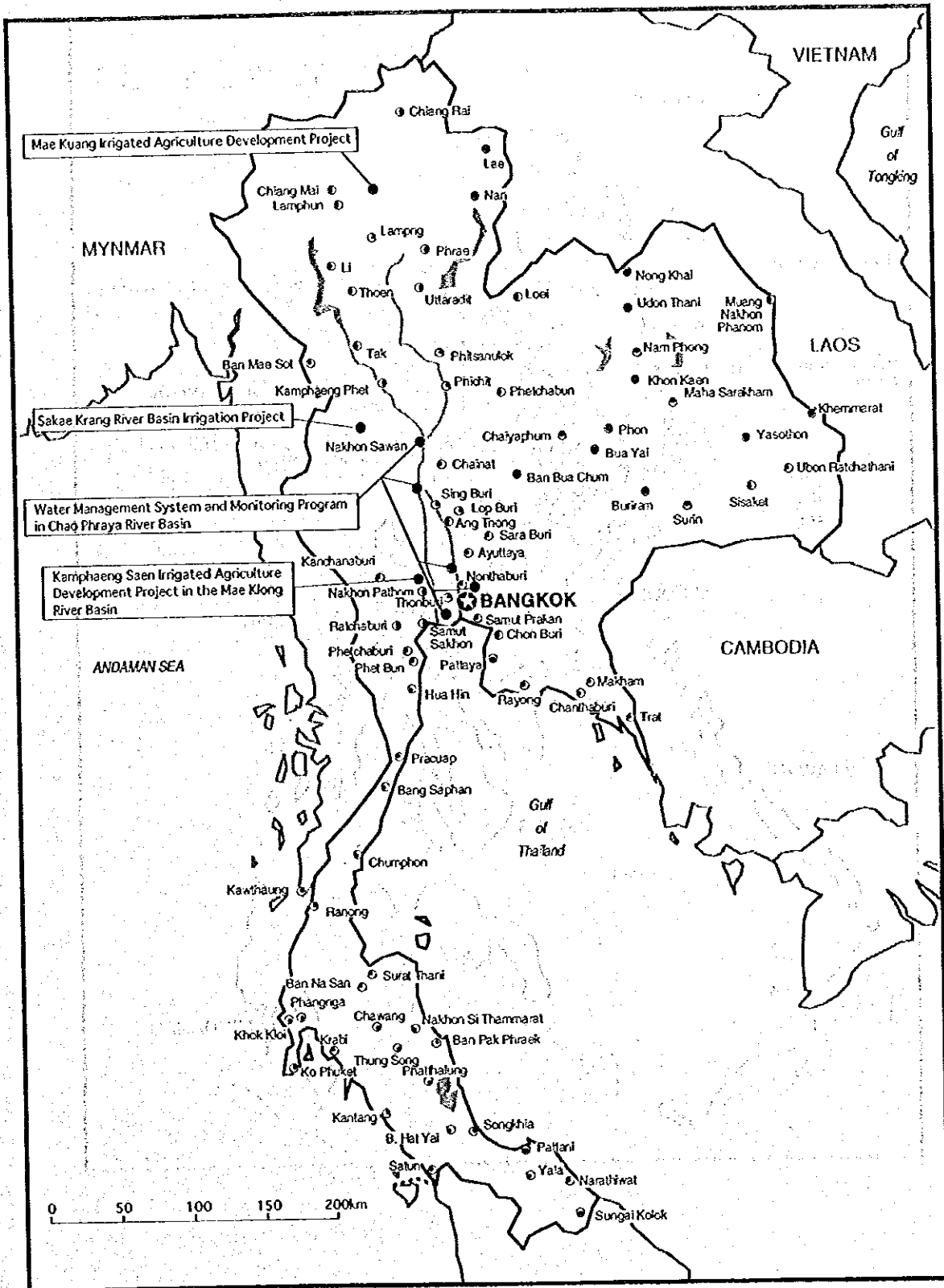
1-3-1 Study projects in Thailand

Title of study project	Type of development study	Time of study	C/P organization
Kamphaeng Saen Irrigated Agriculture Development Project in the Mae Klong River Basin	F/S	81.2 - 82.2	Royal Irrigation Department
Mae Kuang Irrigated Agriculture Development Project	F/S	84.9 - 86.3	Royal Irrigation Department
Sakae Krang River Basin Irrigated Project	F/S	87.9 - 88.9	Royal Irrigation Department
Water Management System and Monitoring Program in the Chao Phya River Basin	M/P	87.1 - 89.3	Royal Irrigation Department

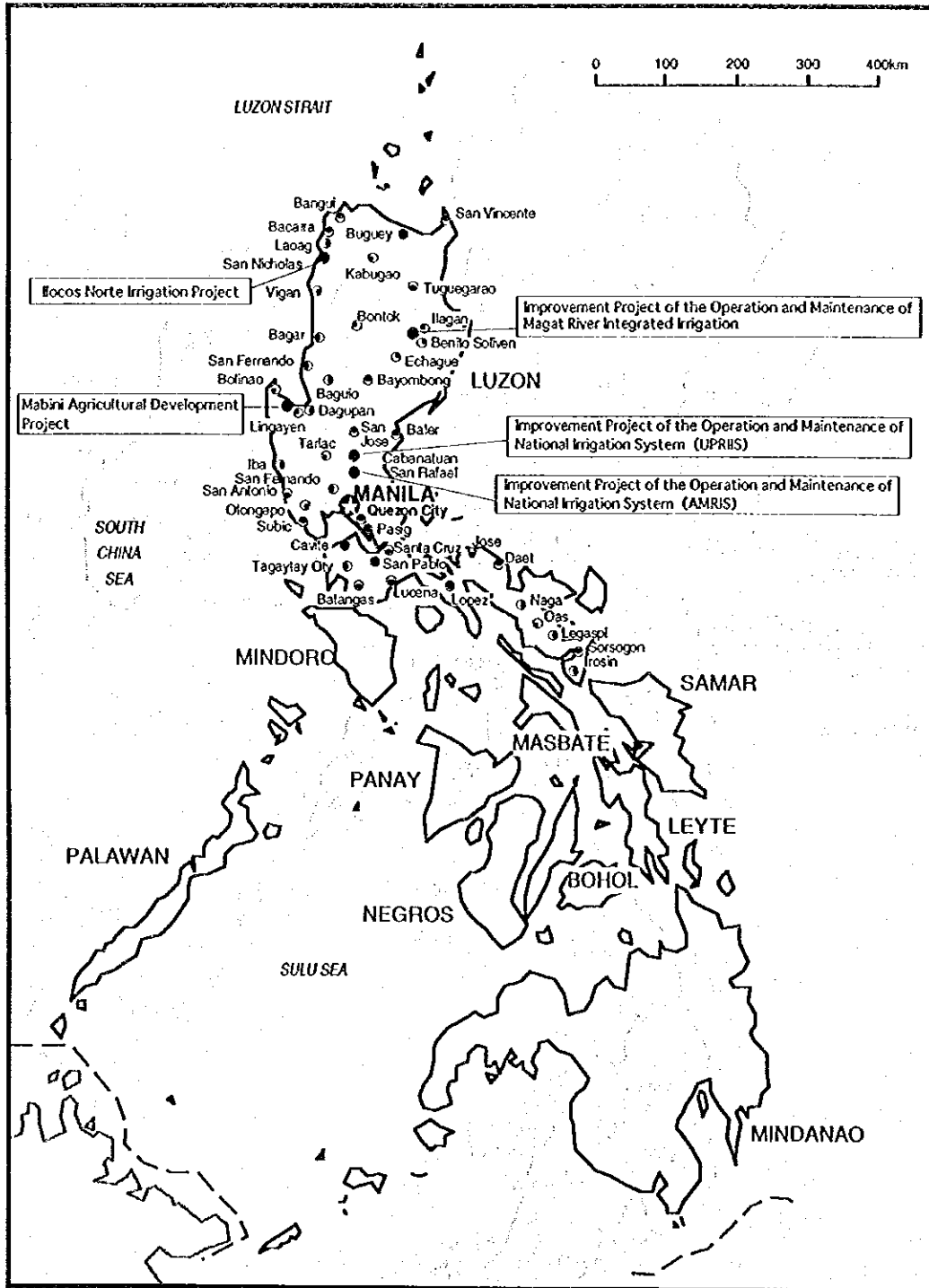
1-3-2 Study project in the Philippines

Title of study project	Type of development study	Time of study	C/P organization
Ilocos Norte Irrigation Project	F/S	78.8 - 80.12	National Irrigation Administration
Mabini Agricultural Development Project	F/S	81.9 - 82.3	National Irrigation Administration
Improvement Project for the Operation & Maintenance of National Irrigation Systems (AMRIS, 18 Districts)	F/S	82.9 - 84.2	National Irrigation Administration
Improvement Project for the Operation & Maintenance of National Irrigation Systems (UPRIIS)	F/S	82.9 - 84.2	National Irrigation Administration
Improvement Project for the Operation & Maintenance of Magat River Irrigation	M/P	86.2 - 87.3	National Irrigation Administration

Central locations of the study projects in Thailand



Central locations of the study projects in the Philippines



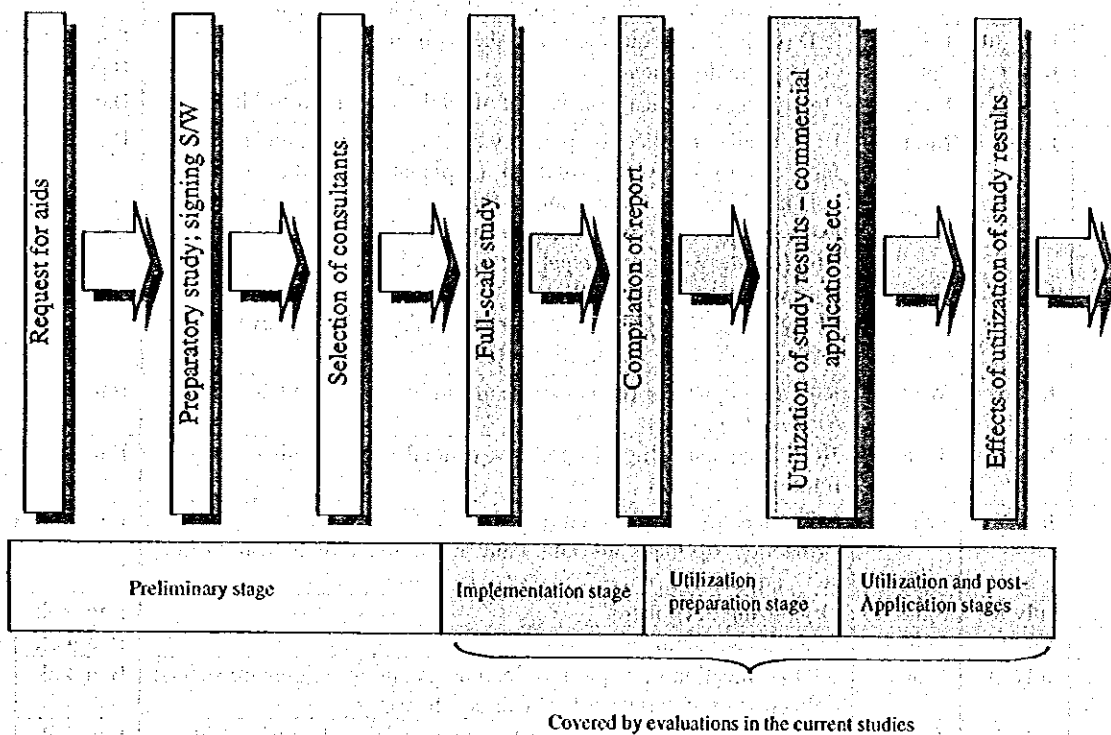
1-4 Evaluation scope

The current series of evaluations shall cover three stages of development studies: the implementation stage, the (study-results) utilization preparation stage, and the (study - results) utilization and post-utilization stage.

The "implementation stage" begins with dispatch of a study team comprised of Japanese consultants, proceeds to full-scale study conducted in collaboration with the study team of the recipient country, and ends at completion of the study and compilation of study results.

The "utilization preparation stage" includes application of the transferred technology to other projects by the government of the recipient country, based on the proposals in the final report, as well as practical utilization, such as preparatory works for the next-stage studies and commercial applications, based on the proposed framework.

In the "utilization and post-utilization stages," the recipient country applies the technologies transferred as a result of their specific preparatory works in the utilization stage to other projects and to commercial applications, attaining the intended targets.



1-5 On-site study itinerary and major interviewees

As indicated in the table below, the on-site studies were conducted for 19 days from June 26 through July 14. Information was collected through delivery/collection of questionnaire sheets, hearings, collection of documents, and on-site surveys, etc. primarily in collaboration with the Royal Irrigation Department in Thailand and with the National Irrigation Administration in the Philippines. Study itineraries and personnel interviewed at individual sessions are detailed below.

1-5-1 Itinerary for the on-site studies in Thailand

Day number	Date	Day of week	Itinerary and organization visited, etc.	Study location
1	June 26	Mon.	Travel: Tokyo -> Bangkok	Bangkok
2	June 27	Tue.	JICA Thailand Office (preparatory discussion for the studies) JBIC (hearing on yen credits for RID)	Bangkok
3	June 28	Wed.	DTEC (collection of questionnaire sheets; hearings) RID (preparatory discussions with JICA technical staff) RID (explanation of the study objectives and arrangements on procedures – personnel in charge of each project) Survey of the "Modernization of Water Management System Project (JICA)"	Bangkok
4	June 29	Thurs.	RID (collection of questionnaire sheets; hearings) Hearing with Mr. Saito, a member of JICA technical staff	Bangkok
5	June 30	Fri.	RID (collection of questionnaire sheets; hearing)	Bangkok
6	July 1	Sat.	Organizing documents	Bangkok
7	July 2	Sun.	Organizing documents (arrival of official members from Manila)	Bangkok
8	July 3	Mon.	JICA Thailand Office (preparatory meeting for the studies) Japanese Embassy to Thailand (explanation of the studies to personnel in charge of economic aid) DTEC (explanation of evaluation study methods) RID (courtesy call and preparatory discussion)	Bangkok
9	July 4	Tue.	Survey of Kanchanaburi Project Study of the Kamphaeng Saen Irrigated Agricultural Development Project in the Mae Klong River Basin	Bangkok
10	July 5	Wed.	RID Headquarters (explanation of study targets and hearing on each study project)	Bangkok
11	July 6	Thurs.	JICA Thailand Office (reports of official team members prior to returning to Japan)	Bangkok
12	July 7	Fri.	(official team members return to Japan) Collection of materials and data at National Statistical Office, JCC, and JETRO, etc.	Bangkok
13	July 8	Sat.	Organizing documents	Bangkok
14	July 9	Sun.	Organizing documents	Bangkok
15	July 10	Mon.	RID (Collection of requested documents and questionnaire sheets; collection of materials at RID Library; hearings)	Bangkok
16	July 11	Tue.	Survey of the pilot facilities of Bang Sai and the Memorial Bridge Survey of the pilot facilities of "Irrigation Technology Center Phase II" for water management project in the Implementation Study for the Water Management System and Monitoring Program in the Chao Phya River Basin (M/P)	Bangkok
17	July 12	Wed.	Interview with Mr. Joji Nakagawa, member of technical staff at JICA SV	Bangkok
18	July 13	Thurs.	JICA Thailand Office (reports prior to returning to Japan)	Bangkok
19	July 14	Fri.	Travel: Bangkok -> Tokyo	Arrival at Japan

1-5-2 Itinerary for the on-site study in the Philippines

Day number	Date	Day of week	Itinerary and organization visited, etc.	Study location
1	June 26	Mon.	Travel: Narita -> Manila JICA Philippines Office (preparatory discussions)	Manila
2	June 27	Tue.	JBIC Philippines Office (hearings on the relationships of JICA studies with JBIC projects) NEDA (National Economic and Development Authority) NIA (National Irrigation Administration) (courtesy call and preparatory discussions)	Manila
3	June 28	Wed.	NIA (National Irrigation Administration) (personnel in charge of each project; hearings and explanations on questionnaires)	Manila
4	June 29	Thurs.	Travel: Manila (overland) -> San Rafael NIA Region III Office (hearings and collection of questionnaire sheets, as well as on-site surveys on "Improvement Project for the Operation & Maintenance of National Irrigation Systems at AMRIS, 18 Districts") Travel: San Rafael -> Manila	San Rafael
5	June 30	Fri.	ADB (ADB policies for agricultural irrigation in the Philippines) Report to JICA Philippine Office (reports by official team members)	Manila
6	July 1	Sat.	Organizing documents	Manila
7	July 2	Sun.	Organizing documents (Official team members travel to Bangkok)	Manila
8	July 3	Mon.	NIA-PDD (National Irrigation Administration, Project Development Department) (collection of questionnaire sheets; hearings)	Manila
9	July 4	Tue.	NIA-PDD (National Irrigation Administration, Project Development Department) (collection of questionnaire sheets; hearings)	Manila
10	July 5	Wed.	Travel: Manila (overland) -> Cabanatuan NIA UPRIIS Regional Office (hearings; collection of questionnaire sheets)	Cabanatuan
11	July 6	Thurs.	UPRIIS Irrigation Management Organization Office (District II) (On-site surveys on the Improvement Project for the Operation & Maintenance of National Irrigation Systems (UPRIIS)) Travel: Cabanatuan (overland) -> Manila	Cabanatuan
12	July 7	Fri.	NIA (delivery of additional questionnaires; collection of additional information at NIA, based on information collected on-site) ADB (hearing with personnel in charge of agriculture)	Manila
13	July 8	Sat.	Manila -> Tsuguegarao (overland) -> San Nicholas	San Nicholas
14	July 9	Sun.	Organizing documents	San Nicholas
15	July 10	Mon.	NIA Regional Office/ Ilocos Norte Irrigation Management Organization Office (hearings; collection of questionnaire sheets / on-site survey on the "Ilocos Norte Irrigation Plan")	San Nicholas
16	July 11	Tue.	San Nicholas (overland) -> Manila	Manila
17	July 12	Wed.	NSCB (collection of statistical materials)	Manila
18	July 13	Thurs.	NIA-PDD (National Irrigation Administration, Project Development Department) (collection of additional questionnaire sheets, hearings, and reporting) NEDA (reporting) Japanese Embassy to the Philippines (reporting) JICA Philippines Office (reporting)	Manila
19	July 14	Fri.	Travel: Manila -> Narita	Arrival at Japan

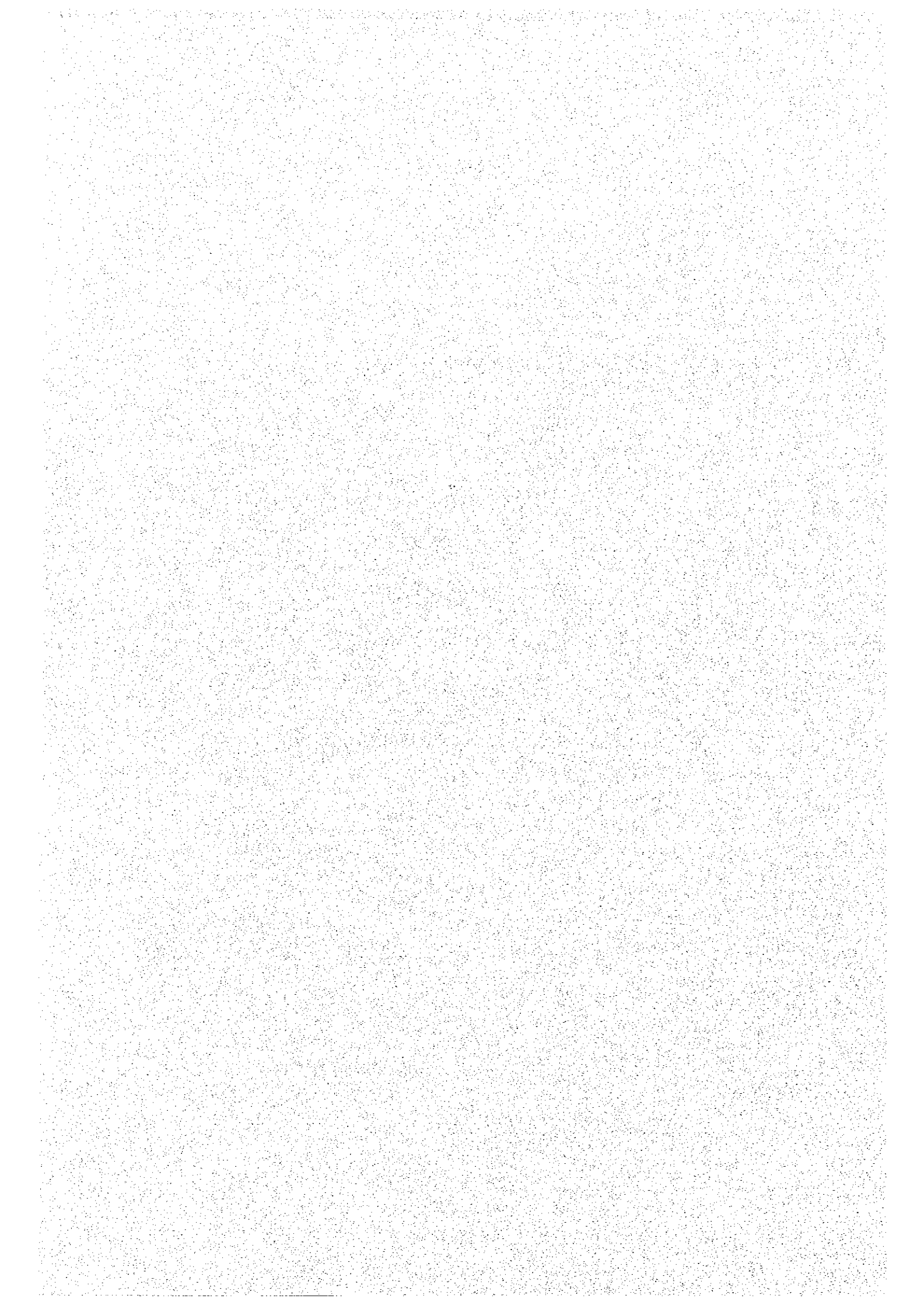
1-5-3 Major interviewees for on-site studies in Thailand

Japanese Embassy to Thailand	Mr. Ichio, Yaoya, First Secretary, Embassy of JAPAN
JICA Thailand Office	Mr. Masaru, Morimoto, Resident Representative Mr. Hiroshi, Umezaki, Deputy Resident Representative Mr. Toshihisa, Hasegawa, Assistant Resident Representative
JICA technical staff	Mr. Keiichi, Takeda, Senior Advisor, DTEC Dr. Toshiki, Saito, Technical Advisor, RID Mr. Takeshi, Miyazaki, Chief Advisor, Irrigation Engineering Center Mr. Akira, Suzuki, Coordinator, Irrigation Engineering Center Mr. Joji, Nakagawa, SV
JBIC Thailand Office	Mr. Shigenori Ogawa, Representative
DTEC	Mr. Banchong Amornchewin, Chief of Japan Sus-Division
RID	1) Personnel related to the study (F/S) of the Kamphaeng Saen Irrigated Agriculture Development Project in the Mae Klong River Basin Mr. Wuthikrai Smitthimadindra, Irrigation Engineer, Irrigation Water Use Development Branch Mr. Paitoon Palayasoot, Former Secretary General, Central Office of Land Consolidation (COLC), MOAC 2) Personnel related to the study (F/S) of the Mae Kuang Irrigated Agriculture Development Project Mr. Vira Vongsangnak, Director, Foreign Financed Projecs Administration Div. Ms. Prapai Klinkhacharn, Foreign Financed Projects Administration Div. Ms. Rossakon Keosa-ard, Foreign Financed Projects Administration Div. Mr. Kanchadin Sapraton, Chief of Loan Agreement Administration 3) Personnel related to the study (F/S) of the Sakae Krang River Basin Irrigation Project Mr. Suwit Thanopanuwat, Chief of Planning Section 1, Office of Budget Programming and Project Planning Mr. Weeraa Wangwarawong, Engineer, Office of Budget Programming and Project Planning Mr. Dhongchart Chullasak, Evaluation Group, Office of Budget Programming and Project Planning Mr. Suvit, Member of the Project 4) Personnel related to the study (M/P) of the Water Management System and Monitoring Program in the Chao Phya River Basin Mr. Virat Khao- Uppatum, Director, Office of Hydrology and Water Management Mr. Anusak Mujjalinvimuti, Chief of Data processing Section(Hydrologist) Mr. Piphat Sathianpantasit, Office of Hydrology and Water Management
RID Regional Office 10	Mr. Wisit Sathranawin, Director, Regional Office 10 Mr. Pichai Pongnumkul, Head , Regional Office 10 Mr. Maitree Santisuk, Head, Kamphaeng Saen Water Management & Maintenance Project Mr. Pathawee Duandjit, Engineer Mr. Chartree Wongchuen, Engineer Mr. Panchai Bunpen, Head, Vajiralongkorn Dam Demonstration Center, Pilot Project Mr. Charuek Sinturat Agricultural Officer Mr. Srisak Sri-om, Head, Kanchanaburi Land Readjustment Office Mr. Anan Khunthongtep, Agricultural Officer, Tha Muang District Agricultural Office Mr. Nithiwat Panton, Engineer, Tha Ma Kha Irrigation Project Mr. Wicharn Chanpen, Agricultural Officer

1-5-4 Major interviewees for on-site studies in the Philippines

Japanese Embassy to the Philippines	Mr. Eiji, Ueno, First Secretary
JICA Philippines Office	Hideo, Ono, Resident Representative Tetsuji, Iida, Assistant Resident Representative
JICA technical staff	Kenzo, Takeuchi, Senior Advisor of NIA Toshiyuki, Yoshioka, Senior Advisor of NIA
JBIC Philippines Office	Mr. Floro O Adviento, Manager
NEDA	Mr. Jose S. Montero, Director III, Project Monitoring Staff Mr. Noriel B. Sicad, Chief Economic Development Specialist, Project Monitoring Staff Mr. Arsing B. V., Sr. Economic Development Specialist, Project Monitoring Staff MS. Adora Nauarro, Sr. Economic Development Specialist, Infrastructure Staff MS. Joanne Tolentino, Economic Development Specialist, Public Investment Staff MS. Vanessa A. Dimaano, Economic Development Specialist, Public Investment Staff
NIA	Mr. Manuel S. Arevalo, Administrator Mr. Orando C. Hondrade, Dupty Administrator Mr. Rogelio A. Fernandez, Assistant Administrator for Finance & Management Mr. Antonio A. Galvez, Assistant Administrator for Project Devt. & Implementation Mr. Edilberto B. Punzal, Manager for Project Development Department Mr. Wilfred Silva, Division Manager of Project Investigation Div., PDD Mr. Abelard Y. Armentia, Division Manager of Plan Formulation Div., PDD Mr. Alejandro S. Cantor, Supervisor of Soil Tech., I.RUED, PDD Mr. Manuel U. Estefanio, Head of Dam and Reservoir of Plan Formulation Div., PDD Mr. Clemente T. Alanano, Acting Project Manager, SPISP Mr. Ease Bro M. Tallao, Economist
NIA Region III	Mr. Marcelino S. Santos, PIM, Bulcan Prov. Irrigation Management Office Mr. Leonard S. Gonzales, Div. Manager, NIA Region III Mr. Oscar M. Mercado, Div. Manager, NIA Region III
NIA UPRIS Office	Mr. Sofronio G. Mendoza, Manager, Engineering & Operation Division, and others
NIA UPRIS District II Office	Mr. Porferio V. Reyes, Chief of District II Irrigation Office, and others
NIA Ilocos Norte Office	Mr. Alfredo F. Lorenzo, Irrigation Superintendent II, NIA Region I Office Mr. Eddie S. Alonzo, Enginner
ADB	Mr. Tetsuro, Miyasato, Senior Project Engineer Mr. Muhammad A. Mannan, Manager of Forestry & Natural Resource dev., Agricultural & Social Sec. Dept.

Chapter 2: Evaluation Methods



Chapter 2: Evaluation Methods

A basic policy on evaluation methods can be summarized through the following three points:

- 1) Apply a logical PDM structure to establish evaluation approaches.
- 2) Use the five criteria automatically set in accordance with the logical PDM structure (efficiency, effectiveness, impact, relevance, and sustainability) for evaluation.
- 3) Establish detailed evaluation approaches, using evaluation grids for each of the five evaluation criteria.

This chapter provides explanations about the compilation of a PDM (2-1), the relationship of the PDM to the five evaluation criteria (2-2), and the compilation of grids (2-3), using methods and items relevant to this evaluation study.

2-1 Compilation of a PDM

2-1-1 Objectives of PDM compilation

Primary objectives of PDM compilation can be summarized as follows:

- 1) Compilation of a PDM will lead to logical understanding of the flow from a development study's implementation stage to its post-implementation stage, clarifying evaluation approaches. This process clearly defines how to evaluate development studies and assess evaluation results.
- 2) Clarification of a logical PDM structure will further elucidate the targets of the development study.
- 3) Promotion of a common understanding between evaluators and those related to implementation of the evaluation (i.e., not only the evaluation team but others including providers of required information for the evaluation) will facilitate the evaluation.

It is important to implement evaluation results using a clear indication of evaluation methods, without which the results are meaningless. In evaluations implemented without clearly defined methods, the results may be regarded as derived from the evaluators' arbitrary judgements, thus compromising the reliability of the evaluation itself.

By applying the sequence of a development study to the logical PDM structure, it is possible to define the approaches utilized for implementation of the evaluation (how to evaluate), and to interpret the evaluation results using specified evaluation items (how to interpret). In addition, as evaluation results can be utilized for judgments when compared with other items, multiple evaluation items can be compared by applying an established evaluation method.

2-1-2 Compilation of an ex-post PDM

Evaluations based on the PDM may be categorized into the following three patterns:

- i) At the time of evaluation, an evaluation PDM will be compiled based on a PDM

prepared before project implementation, in which participants and problems can be analyzed.

ii) Although analyses of participants have not been implemented, PDM is compiled before project implementation, based on which the evaluation PDM will be compiled and the evaluations conducted accordingly.

iii) PDM is not compiled in advance, and the evaluation PDM will be compiled when the evaluations are conducted.

All evaluations of older development studies fall into category, "iii)," in which the PDM was compiled for the first time when the evaluations were conducted.

For the nine projects covered by the current study, evaluations were conducted by applying the sequence of the development study to a logical PDM structure after implementation, to clarify the evaluation approaches.

Compilation of an ex-post type of PDM raises the problem that past evaluation activity that should be included in the PDM may not be correctly identified because S/W or operational instructions used at the time of development study may no longer exist. In this case, it is necessary to collect information as accurately as possible in order to compile the PDM. In the projects under study, since all operations were conducted in the 1980s, efforts have been made to reflect as much information concerning development studies as possible in the PDM by referring to the final reports and other relevant materials.

2-1-3 Basic positioning of PDM in this evaluation study

In this study, the sequence shown in the following figures (i.e., from "implementation stage" through "(study-results) utilization preparation stage" to "(study-results) utilization and post-utilization stage") was applied to a logical PDM structure to determine evaluation approaches for the development studies.

The logical PDM structure is comprised, along a time axis, of "input," "activity," "output," "purpose," and "goal." In this evaluation, this logical structure relates to the three stages of "implementation," "utilization preparation," and "utilization and post-utilization" as follows:

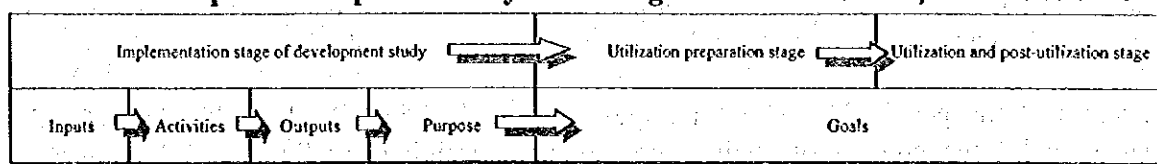
Implementation stage: "input," "activity," "output," and "purpose"

Utilization preparation stage: Up to the middle of "goal"
(in this evaluation, referred to as "goal 1")

Utilization and post-utilization stage: From the middle of "goal" to the top-priority goal
(in this evaluation, referred to as "goal 2")

Fig. 2-1:

Relationship of development study flow to logical PDM structure, relative to time



A PDM with the same positioning cannot be compiled for different development studies since the studies' formats (M/P and P/S, etc.) and objectives differ. In this evaluation, therefore, while the above relationship between the flow of development studies and the PDM logical structure serves as a basis, the following models of PDM positioning are applied. The nine projects under evaluation are categorized into three groups:

- 1) Study models targeted at technology transfer for development plans and project implementation plans (technology-transfer type of M/P study)
- 2) Study models targeted at formulation of development plans and project implementation plans (plan-formulation type of M/P study)
- 3) Study models targeted at implementation of specific projects (project-implementation type of F/S)

The nine projects under evaluation here can be categorized as follows:

Table 2-1: Categories of target projects for Thailand

Project title	Development study format	Category
Kamphaeng Saen Irrigated Agriculture Development Project in the Mae Klong River Basin	F/S	Project-implementation type of F/S
Mae Kuang Irrigated Agriculture Development Project	F/S	Project-implementation type of F/S
Sakae Krang River Basin Irrigation Project	F/S	Project-implementation type of F/S
Water Management System and Monitoring Program in the Chao Phya River Basin	M/P	Technology-transfer type of M/P study

Table 2-2: Categories of target projects for the Philippines

Project title	Development study format	Category
Ilocos Norte Irrigation Project	F/S	Project-implementation type of F/S
Mabini Agricultural Development Project	F/S	Project-implementation type of F/S
Improvement Project for the Operation & Maintenance of National Irrigation Systems (AMRIS, 18 Districts)	F/S	Project-implementation type of F/S
Improvement Project for the Operation & Maintenance of National Irrigation Systems (UPRIIS)	F/S	Project-implementation type of F/S
Improvement Project for the Operation & Maintenance of Magat River Integrated Irrigation	M/P	Plan-formulation type of M/P study

1) Technology-transfer type of master plan

The "technology-transfer type" of master plan is designed to transfer specific technologies to the recipient country team through implementation of the master plan.

In terms of the positioning of PDM stages, "input" will include the following: (for the Japanese side) the number of study team members, training enrollments and number of trainees, provision of equipment, if any, and seminars and training courses to be held; and (for the recipient-country side) the counterpart, the number of counterpart staff members, study offices to be established, seminars and training courses to be held by the counterpart, and provision of the equipment, if any. "Activity" is performed simultaneously with the input, and includes the implementation of studies and technology transfers. "Output" seeks to understand the conditions for study targets through implementation of the study, and may include proposals made for the formulation of specific development plans and project implementation plans.

"Purpose" enables the recipient country team to formulate development plans and project implementation plans proposed in the "output" section through technology transfers derived from the development study. "Goal" signifies the application of development plans and project implementation plans so formulated to other regions. Table 2-3 outlines the PDM model for a technology-transfer type of master plan.

Table 2-3: PDM positioning (for technology-transfer type of master plan model)

	Narrative Summary	Measurable Indicator	Means of Verification	Important Assumption
Utilization and post-utilization stage	Goals (Implementation and post-implementation stage): Enable the recipient country team to develop the $\Delta\Delta$ plan in areas other than the $\circ\circ$ district after implementation of the development study.			
	Purposes: Enable the recipient country team to develop the $\Delta\Delta$ plan in the \circ district.			
Development-study implementation stage	Output: 1) Understand the current conditions of $\times\times$ in the $\circ\circ$ district. 2) The Japanese team and the recipient country team formulate the project plans.			
	Activities: 1) Implementation of study 2) Technology transfer	Input: (Japanese team) 1) Dispatch experts 2) Accept trainees 3) Supply equipment 4) Hold seminars	(Recipient country team) 1) C/P 2) Establishment of the study office	Precondition

2) Plan-formulation type of master plan study

The "plan-formulation type" of master plan study is designed to formulate development plans for a specific field in a specific district by implementing the master plan. In terms of the positioning of the PDM, "input" and "activity" are the same as for a technology-transfer master plan. "Output" here means to understand the conditions of the study targets through implementation of the study, and to achieve technology and knowledge transfers concerning the study by formulating a M/S in collaboration with the C/P. "Purpose" means to formulate development plans for the target area based on the conditions so understood. "Goal" includes implementation of the next-stage studies of various projects, such as F/S and D/D, based on the development plan framework formulated at a preliminary stage for implementation of development study; project implementation in accordance with F/S and D/D in the utilization and post-utilization stage; and attainment of the expected objectives in the study's projects. Table 2-4 provides an outline of a PDM model for a plan-formulation type of master plan study.

Table 2-4: PDM positioning (for plan-formulation type of master plan model)

	Narrative Summary	Measurable Indicator	Means of Verification	Important Assumption
Utilization and post-utilization stage	Goal 2: (Implementation and post-implementation stage): The project is implemented in accordance with the results of the next-stage study (F/S, D/D, etc.) and attains the expected objectives.			
Utilization preparation stage	Goal 1: (Preparation stage) The government of the recipient country implements the next-stage study (F/S, D/D, etc.) in accordance with the proposed framework.			
Development-study implementation stage	Purposes: The Japanese team and the recipient country team collaborate to develop the ×× development plan in the ○○district.			
	Output: 1) Understand the current conditions of ×× in the ○○district. 2) The recipient country team acquires skills and knowledge concerning M/P.			
	Activities: 1) Implementation of study 2) Technology transfer	Input: (Japanese team) 1) Dispatch experts 2) Accept trainees 3) Supply equipment 4) Hold seminars	(Recipient country team) 1) C/P 2) Establishment of the study office	Precondition

3) Project-implementation type of feasibility study

A “project-implementation type” of feasibility study is designed to formulate a basic plan for a specific project for a specific field in a specific district, through implementation of the feasibility study.

In terms of the positioning of the PDM, “input” and “activity” are the same as in the previous two models. “Output” here means to understand the current conditions of the study targets through implementation of the study, and to achieve technology and knowledge transfers concerning the study by formulating an M/S in collaboration with the C/P. “Purpose” means to formulate basic plans for specific projects covered by the F/S. “Goal” refers to a situation in which the government of the recipient country makes practical preparations for realizing the project plans, and consequently, the project is implemented with expected objectives achieved. Table 2-5 shows an outline of a PDM model for a project-implementation type of feasibility study.

Table 2-5: PDM positioning (for project-implementation type of feasibility study model)

	Narrative Summary	Measurable Indicator	Means of Verification	Important Assumption
Utilization and post-utilization stage	Goal2: (Implementation and post-implementation stage): The project covered by F/S is implemented and attains the expected objectives.			
Utilization preparation stage	Goal1: (Preparation stage) The government of the recipient country makes practical preparations for project implementation.			
Development-study implementation stage	Purposes: The Japanese team and the recipient country team formulate the ΔΔ development plan in the ○○district through collaborative F/S implementation.			
	Output: 1) Understand the current conditions of × × in the ○○district. 2) The recipient country team acquires skills and knowledge concerning F/S.			
	Activities: 1) Implementation of study 2) Technology transfer	Input: (Japanese team) 1) Dispatch experts 2) Accept trainees 3) Supply equipment 4) Hold seminars	(Recipient country team) 1) C/P 2) Establishment of the study office	Precondition

2-1-4 Positioning of external conditions in PDM

In PDM, the basic rule applicable to external conditions requires, as indicated in Table 2-6, that these external conditions be always satisfied to advance in the logical structure of PDM. In other words, satisfaction of the preliminary condition (1) will enable "input" and "activity." External condition (2) then needs to be satisfied for the "activity" to move on to "output." Similarly, external condition (3) must be met before the "output" can lead to "purpose."

In this evaluation, all factors excluded from the scope of the study specified in S/W prior to implementation of the development study are designated as external conditions.

For example, consider a development study the purpose of which is to formulate a dam construction plan, and in which environmental impact assessments are conducted only after the study's proposals progress to the project-implementation stage in the recipient country; as a result, project implementation is suspended because the project has been found to be inappropriate.

In this case, if environmental assessment items are not included in the scope at the S/W stage prior to implementation of the development study (Table 2-7), environmental problems are treated as external conditions, or outside of the development study. The causes should not be sought in the development study itself; rather, the failure to satisfy the external conditions should be regarded as the cause of the project's cancellation.

In contrast, even though environmental assessment items are included in the scope (Table 2-8), insufficient studies on environmental aspects may prevent project implementation. In this case, environmental assessments are already internalized in the F/S, and the development study itself should be treated as causing the problem.

Table 2-6: Basic positioning of external conditions in PDM

Project summary	Indicator	Indicator data acquisition means	External conditions
Goal 2			6
Goal 1			5
Purpose:			4
Output			3
Activity	Input		2
			Preliminary 1 condition

Table 2-7: Case in which environmental studies are not included in the scope of F/S (example)

Narrative Summary	Indicator	Means of Verification	Important Assumption
Goal The project covered by F/S is implemented and achieves the objectives.			
Purpose The Japanese team and the target-country team formulate a dam construction plan at location P through collaborative work.			1) No environmental problems are detected 2) The target country ensures the budget necessary for the project implementation. 3) Relevant organizations are sufficiently capable of implementing the project.
Inputs			
Activities	Inputs		
			Precondition

Table 2-8: Case in which environmental studies are included in the scope of F/S (example)

Narrative Summary	Indicator	Means of Verification	Important Assumption
Goal The project covered by F/S is implemented and achieves the objectives.			
Purpose The Japanese team and the target-country team formulate a dam construction plan at location P through collaborative work.			1) The target country ensures the budget necessary for the project implementation. 2) Relevant organizations are sufficiently capable of implementing the project.
Inputs			
Activities	Inputs		
			Precondition

↑ Internalized in F/S

No environmental problems are detected

2-2 Relationship of PDM and five evaluation criteria

Evaluations with PDM will clarify the logical structure of PDM and simultaneously specify the evaluation scope comprised of the five criteria (efficiency, effectiveness, impact, relevance, and sustainability). The scopes of the five evaluation criteria are positioned as in Table 2-9. Major points for each of the five evaluation criteria in this evaluation are as follows.

Table 2-9: Logical structure of the PDM and basic positioning of the five evaluation criteria

	Efficiency	Effectiveness	Impact	Relevance	Sustainability
Goals					
Purpose					
Outputs					
Activities/Inputs					

(1) Efficiency

“Efficiency” checks whether the development study has been efficiently implemented in terms of the relationship among input, activity, and output. Specifically, this item will verify, for example, whether the development study has been implemented in accordance with its original scope, study inputs, and technology transfers by study members; whether the study members and counterpart members have been able to communicate effectively with each other; whether enough data have been available, and whether the study has been adequately coordinated with other studies or projects being simultaneously implemented.

(2) Effectiveness

“Effectiveness” checks the extent to which the development study has attained its objectives. Specifically, this item will verify, for example, whether the proposals have been formulated after adequate review (from technical, economic, social, and environmental aspects), and whether the structure and content of the report facilitate readers’ understanding.

(3) Impact

“Impact” checks whether the proposals derived from the development study or technologies transferred are sufficiently utilized. Specifically, this item will verify, for example, how the transferred technologies are applied (if the objective is a technology transfer); how the proposed plans have been implemented (if the objective is a formulation of plans), and/or how the project and next-stage study progress up to project implementation; or how the project’s effectiveness evolved after implementation (if the objective is project implementation).

(4) Relevance

“Relevance” checks the relevance of the development study at the implementation stage and the time of evaluation. At the implementation stage, this item verifies, for example, whether the development study has been consistent with development plans of the recipient country/region/organization, activities of JICA and donors, and the needs of the beneficiaries; at the time of implementation of evaluation study, it mainly verifies whether the utilization

(projects) derived from the proposals of the development study can satisfy the current needs.

(5) Sustainability

“Sustainability” checks whether the technologies transferred with the development study and derivative projects are capable of self-reliant, sustainable development at the utilization/post-utilization stage. Specifically, this item confirms, for example, the names, organizational structures, and functions of the parties and the beneficiaries (organizations) currently responsible both technically and financially for the transferred technologies and derivative projects, as well as their past outputs.

The positioning of the technology transfer and plan-formulation types of M/P study, and of the project-implementation type of F/S, relative to the five evaluation criteria, is as indicated in Table 2-10. The major subordinate items for each of the five evaluation criteria are indicated by the shaded portions. Although these portions indicate subordinate matters in this evaluation, they need to be adjusted in accordance with the content of the development study. They will therefore need to be re-evaluated and re-established in the light of the study's contents.

Table 2-10: Logical structure of PDM and positioning of the five evaluation criteria

Logical structure of PDM	Efficiency	Effectiveness	Impact	Relevance	Sustainability
<p>Goal 2 (Technology-transfer type of M/P study) The recipient country team can develop the $\Delta\Delta$ plan in areas other than the $\circ\circ$ district after implementation of the development study. (Plan-formulation type of M/P study) The next-stage study (F/S, D/D, etc.) is implemented, leading to project implementation and attaining the objectives of the project. (Project-implementation type of F/S) The project derived from the F/S is implemented, attaining the objectives.</p> <p>Goal 1 (Plan-formulation type of M/P study) The government of the recipient country implements practical preparations for the next-stage study (F/S, D/D, etc.), in accordance with the proposed framework. (Project-implementation type of F/S) The government of the recipient country implements practical preparations for project implementation.</p> <p>Purpose (Technology-transfer type of M/P study) The recipient country team can develop $\Delta\Delta$ plan in the $\circ\circ$ district. (Plan-formulation type of M/P study) The Japanese team and the recipient country team collaborate to develop $\times \times$ development plan in the $\circ\circ$ district. (Project-implementation type of F/S) The Japanese team and the recipient country team collaborate to develop the $\Delta\Delta$ project plan in the $\circ\circ$ district through joint implementation of the F/S.</p> <p>Output (Technology-transfer type of M/P study) 1) Understand the current conditions of $\times \times$ in the $\circ\circ$ district. 2) \square studies or \diamond projects are proposed. (Plan-formulation type of M/P study) 1) Understand the current conditions of $\times \times$ in the $\circ\circ$ district. 2) The recipient country team acquires skills and knowledge concerning M/P. (Project-implementation type of F/S) 1) Understand the current conditions of $\times \times$ in the $\circ\circ$ district. 2) The recipient country team acquires skills and knowledge concerning this F/S. Activity and input. (Applied for all three types of studies) (Activity) 1) Implementation of study 2) Technology transfer (Input) (Japanese team) 1) Dispatch experts 2) Accept trainees 3) Supply equipment 4) Hold seminars (Recipient country team) 1) C/P 2) Establish the study office</p>	<p>(M/P1), (M/P2), (F/S) ● Was the development study implemented in accordance with the scope specified in SWP? ● Were inputs sufficient? ● Was the technology transfer sufficient? ● Were communications sufficient? ● Were enough data available? ● Were links to other studies</p>	<p>(M/P1), (M/P2), (F/S) ● Were the proposals compiled after sufficient review? ● Was the report properly structured and equipped with sufficient content?</p>	<p>(Utilization and joint-use utilization stages) (M/P1) Were the proposals derived from the development study sufficiently utilized? (M/P2) Were the proposals derived from the next-stage studies sufficiently applied to the development study? (F/S) Were the proposals derived from the development study sufficiently applied to project implementation? (Utilization preparation stage) (M/P2) What kind of progress has been made for the next-stage studies/project implementation, subsequent to the proposal derived from the development study? (F/S) What kind of progress has been made toward project implementation, subsequent to the proposal derived from the development study?</p>	<p>(M/P1), (M/P2), (F/S) ● At the implementation stage of the development study, was the study consistent with development plans in the recipient country/region/organization, the activities of other donors, and the needs of the beneficiaries? ● At the time of implementation of evaluation study, can the framework proposed in the development study satisfy the needs?</p>	<p>(M/P1) ● Are the transferred technologies expected to be utilized in the future? (M/P2), (F/S) ● Is the project proposed in the development study sustainable?</p>

(M/P1) = technology-transfer type of M/P study; (M/P2) = plan-formulation type of M/P study; (F/S) = project-implementation type of F/S

2-3 Compilation of evaluation grid

An evaluation grid is an effective tool to check the evaluation frame of reference in detail so that it is adopted in this evaluation. The basic format of the evaluation grid used here is as indicated in Table 2-11.

Table 2-11: Basic format of the evaluation grid

5 Criteria	Evaluation items	Specific questions	Data	Collection method	Japanese organization		Organization of target country					International organization	
					A	B	C	D	E	F	G	H	I
Efficiency													
Effectiveness													
Impact	Utilization preparation stage												
	Utilization/post-utilization stage												
Relevance													
Sustainability													

“Evaluation items” include the subordinate evaluation items indicated by the shaded portions, as used for each of the five evaluation criteria in Table 2-10. “Specific question” describes the verification process used to check the “Evaluation items” in detail. “Data” describes the quantitative and qualitative data that may serve as responses to the “Specific question.” “Collection method” describes the actual method of collecting concrete information found in the “Data” section. The characters (A-I) should indicate the names of organizations, with a “○” in the appropriate section from which information is scheduled to be collected.

In accordance with this basic format, models of evaluation grids used in this evaluation for the technology-transfer type of M/P study, plan-formulation type of M/P study, and project-implementation type of F/S are outlined below.

Table 2-12: Technology-transfer type of M/P study

Five criteria	Evaluation items	Specific question	Data (example)	Collection method (example)	Japanese organization		Recipient country's organization (example)								
					JICA	A	B	C	D	E	F	G	H		
Efficiency	Was the development study implemented in accordance with the scope specified in SAW?	Are there any items not covered by the development study?	Contents of SAW and the final report	Review of the final report and SAW	<input type="checkbox"/>				<input type="checkbox"/>						
	Were inputs sufficient?	Was the input from the recipient country (human resources, etc.) sufficient?	Contents of the final report	Review of the final report and interviews	<input type="checkbox"/>	<input type="checkbox"/>									
		Was the input from the Japanese side (human resources, etc.) sufficient?	Contents of the final report	Review of the final report and interviews	<input type="checkbox"/>				<input type="checkbox"/>						
	Was the technology transfer sufficient?	Was the study conducted in close collaboration between the Japanese team and the recipient country team?	Verification of facts by rating	Distribution of questionnaire answer sheets		<input type="checkbox"/>			<input type="checkbox"/>						
		What kind of knowledge and skills has the recipient country team acquired?	Contents of technologies transferred	Distribution of questionnaire answer sheets and interviews	<input type="checkbox"/>				<input type="checkbox"/>						
	Were communications sufficient?	Has the Japanese team explained the study procedures and progresses in detail?	Verification of facts by rating	Distribution of questionnaire answer sheets and interviews		<input type="checkbox"/>			<input type="checkbox"/>						
		Was the communication between the Japanese team and the recipient team sufficient?	Verification of facts by rating	Distribution of questionnaire answer sheets and interviews		<input type="checkbox"/>			<input type="checkbox"/>						
	Were enough data available?	Were the basic data fully available before starting the study?	Contents of the final report	Review of the final report	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>						
		Were the quantitative and qualitative data sufficiently collected?	Contents of the final report	Review of the final report	<input type="checkbox"/>										
	Were links to other studies or projects well-established?	Were there adjustments or interrelationships with the "OOstudy/project" (190 O-1900XX)?	Verification of the final report and facts	Review of the final report and interviews	<input type="checkbox"/>				<input type="checkbox"/>						
Effectiveness	Were the proposals compiled after sufficient review?	Were the proposed plans developed in accordance with sufficient technical, economic, social and environmental analyses?	Proposed plan	Review of the final report and interviews	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>						
		Were the proposals sufficiently feasible for the recipient country (in terms of both scale and requirements)?	Proposed plan	Review of the final report and interviews	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>						
	Was the report properly structured and equipped with sufficient content?	Was the final report adequately structured and equipped with sufficient content?	Structure and content of the final report	Review of the final report and interviews	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>						
Impact	Utilization/preparation stage	Were the proposals derived from the development study sufficiently utilized?	35/ Have the proposals of the following development studies (examples) been sufficiently utilized? (1) OO project (2) ΔΔ project (3) ◇◇ study (4) ○○ study	Implementation list and contents, and verification of facts by rating	Distribution of questionnaire sheets, interviews, and review of relevant documents	<input type="checkbox"/>									
		Have the proposals derived from the development study been applied in districts other than the target area?	Implementation list and contents	Distribution of questionnaire sheets, interviews, and review of relevant documents											
	Utilization/post-utilization stage	Have the proposals derived from the development study been implemented in accordance with technical recommendations?	Implementation list and contents, and verification of facts by rating	Distribution of questionnaire sheets, interviews, and review of relevant documents	<input type="checkbox"/>										
		What kind of effects have been produced by implementation of the plan?	1) Adjustment for supply and demand of irrigation water 2) Flood prevention	Distribution of questionnaire sheets, interviews, and review of relevant documents											

Five criteria	Evaluation items	Specific question	Data (example)	Collection method (example)	Japanese organization		Recipient country's organization (example)						International organization		
					JICA	A	B	C	D	E	F	G	H		
Relevance	At the implementation stage of the development study, was the study consistent with development plans in the recipient country/region/organization, the activities of other donors, and the needs of the beneficiaries?	At the implementation stage of the development study, were the study's policies consistent with development plans of the government of the recipient country?	National Economic and Social Development Plan	Review of relevant documents	<input type="radio"/>										
	At the time of implementation of evaluation study, can the framework proposed in the development study satisfy the current needs?	At the implementation stage of the development study, was the study consistent with the "○○ study/project" (19○○-19××)?	JICA reports	Review of JICA reports	<input type="radio"/>										
		Has the implemented plan been consistent with the current development plan?	Verification of facts by rating	Distribution of questionnaire sheets, interviews, and review of relevant documents					<input type="radio"/>						
Sustainability	Is the project proposed in the development study sustainable?	Which section takes implementation responsibility both technically and financially for maintenance and management of the implemented plan?	Verification of facts	Interviews, and review of relevant documents					<input type="radio"/>	<input type="radio"/>					
	Is the transferred technology still likely to be utilized?	Which technology is in use?	List of utilized technologies and plans	Questionnaire answer Sheets and interview					<input type="radio"/>	<input type="radio"/>					

Table 2-13: Plan development type of M/P study

Five criteria	Evaluation items	Specific question	Data (example)	Collection method (example)	Japanese organization		Recipient country's organization (example)						International organization				
					JICA	A	B	C	D	E	F	G	H				
Efficiency	Was the development study implemented in accordance with the scope specified in S/W?	Are there any items not covered by the development study?	Contents of S/W and the final report	Review of the final report and S/W	<input type="radio"/>				<input type="radio"/>								
	Were inputs sufficient?	Was the input from the recipient country (human resources, etc.) sufficient?	Contents of the final report	Review of the final report	<input type="radio"/>	<input type="radio"/>											
		Was the input from the Japanese side (human resources, etc.) sufficient?	Contents of the final report	Review of the final report	<input type="radio"/>				<input type="radio"/>								
	Was the technology transfer sufficient?	Was the study conducted in close collaboration between the Japanese team and the recipient country team?	Verification of facts by rating	Distribution of facts by rating	Distribution of questionnaire answer sheets		<input type="radio"/>			<input type="radio"/>							
		What kind of knowledge and skills has the recipient country team acquired?	Contents of technologies transferred	Distribution of technologies transferred	Distribution of questionnaire answer sheets and interviews	<input type="radio"/>				<input type="radio"/>							
	Were communications sufficient?	Has the Japanese team explained the study procedures and progresses in detail?	Verification of facts by rating	Distribution of facts by rating	Distribution of questionnaire answer sheets and interviews		<input type="radio"/>			<input type="radio"/>							
		Was the communication between the Japanese team and the recipient team sufficient?	Verification of facts by rating	Distribution of facts by rating	Distribution of questionnaire answer sheets and interviews		<input type="radio"/>			<input type="radio"/>							
	Were enough data available?	Were the basic data fully available before starting the study?	Contents of the final report	Review of the final report	Review of the final report	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>							
Were the quantitative and qualitative data sufficiently collected?		Contents of the final report	Review of the final report	Review of the final report	<input type="radio"/>												
Were links to other studies or projects well-established?	Were there adjustments or interrelationships with the "OOstudy/project" (19○ ○-19○○××)	Reports	Reports	Distribution of questionnaire answer sheets and interviews	<input type="radio"/>			<input type="radio"/>							<input type="radio"/>		
Effectiveness	Were the proposals compiled after sufficient review?	Were the proposals developed in accordance with sufficient technical, economic, social and environmental analyses?	Proposed plan	Distribution of questionnaire answer sheets and interviews	<input type="radio"/>			<input type="radio"/>									
		Were the proposals sufficiently feasible for the recipient country (in terms of both scale and requirements)?	Proposed projects	Distribution of questionnaire answer sheets and interviews	<input type="radio"/>			<input type="radio"/>									
	Was the report properly structured and equipped with sufficient content?	Are the structure and contents of the final report understandable?	Structure and content of the final report	Structure and content of the final report	Distribution of questionnaire answer sheets and interviews	<input type="radio"/>			<input type="radio"/>								

Five criteria	Evaluation items	Specific question	Data (example)	Collection method (example)	Japanese organization		Recipient country's organization (example)					International organization						
					JICA	A	B	C	D	E	F	G	H					
Impact	Utilization preparation stage	What kind of progress has been made toward the project implementation/next-stage studies, etc., subsequent to the proposals derived from the development study?	Have the proposals of the following development studies (examples) been reflected in the development plans of the recipient country? (1) Expansion and improvement of ○○ (2) Construction of ×× (3) Partial modification of △ △	Development plans of the recipient country organizations and developed plans	Distribution of questionnaire sheets, interviews, and review of relevant documents	○												
	Utilization/post-utilization stage	Were the proposals derived from the development study sufficiently utilized?	Which next-stage studies were implemented (as projects) among the proposed projects derived from the development study (following examples)? In which year were they implemented, and what financial sources were used? (1) Expansion and improvement of ○○ (2) Construction of ×× (3) Partial modification of △ △	Contents of reports on project to be implemented/next-stage studies, verification of facts by rating, and relevant documents for related projects	Distribution of questionnaire sheets, interviews, and review of relevant documents	○		○										
			Have the next-stage studies/implemented projects been conducted in accordance with technical recommendations?	List of project implementations and contents, and verification of facts by rating	Distribution of questionnaire sheets, interviews, and review of relevant documents	○		○										
			What kind of effects have been produced in the target area from the next-stage studies/implemented projects?	(1) Expansion of irrigated area (2) Fluctuation in supply and demand of irrigation water (3) Improvement of productivity (4) Income changes	Distribution of questionnaire sheets, interviews, and review of relevant documents			○			○	○						

Five criteria	Evaluation items	Specific question	Data (example)	Collection method (example)	Japanese organization		Recipient country's organization (example)						International organization		
					JICA	A	B	C	D	E	F	G	H		
Relevance	At the implementation stage of the development study, were the study's policies consistent with development plans of the government of the recipient country?	At the implementation stage of the development study, were the study's policies consistent with development plans of the government of the recipient country?	Contents of the national development plan and the development plans of implementation organizations	Review of National Economic and Social Development Plan, and relevant documents, such as development plans of the implementation organization	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>							
		At the implementation stage of the development study, was the study consistent with the recipient country/region/organization, the activities of other donors, and the needs of the beneficiaries?	At the implementation stage of the development study, was the study consistent with the "OO study/project" (19OO-19XX)?	Project report of the implementation organization in the recipient country	Review of the report compiled by the implementation organization of the recipient country	<input type="checkbox"/>			<input type="checkbox"/>					<input type="checkbox"/>	
		At the implementation stage of the development study, have the needs of the beneficiaries been properly considered?	At the implementation stage of the development study, have the needs of the beneficiaries been properly considered?	Verification of facts by rating (whether farmers' organizations were involved in the implementation, etc.)	Distribution of questionnaire sheets, interviews, and review of relevant documents				<input type="checkbox"/>		<input type="checkbox"/>				
	At the time of implementation of evaluation study, can the framework proposed in the development study satisfy the current needs?	Has the implemented project been consistent with the current development plan of the implementation organization in the recipient country?	Verification of facts by rating	Distribution of questionnaire sheets, interviews, and review of relevant documents				<input type="checkbox"/>	<input type="checkbox"/>						
		Is the implemented next-stage study consistent with the current development plan?	Verification of facts by rating	Distribution of questionnaire sheets, interviews, and review of relevant documents				<input type="checkbox"/>	<input type="checkbox"/>						
Sustainability	Is the project proposed in the development study sustainable?	Which section takes implementation responsibility both technically and financially for maintenance and management of the implemented plan?	Verification of facts	Interviews, and review of relevant documents				<input type="checkbox"/>		<input type="checkbox"/>					
		Are the beneficiaries technically capable of maintaining and managing the irrigation and drainage facilities at the field level?	Verification of facts	Interviews, and review of relevant documents				<input type="checkbox"/>		<input type="checkbox"/>					

Table 2-14: Project-implementation type of F/S

Five criteria	Evaluation items	Specific question	Data (example)	Collection method (example)	Japanese organization		Recipient country's organization (example)						International organization				
					JICA	A	B	C	D	E	F	G	H				
Efficiency	Was the development study implemented in accordance with the scope specified in S/W?	Are there any items not covered by the development study?	Contents of S/W and the final report	Review of the final report and S/W	<input type="radio"/>				<input type="radio"/>								
	Were inputs sufficient?	Was the input from the recipient country (human resources, etc.) sufficient?	Contents of the final report	Review of the final report and interviews	<input type="radio"/>	<input type="radio"/>											
		Was the input from the Japanese side (human resources, etc.) sufficient?	Contents of the final report	Review of the final report and interviews	<input type="radio"/>				<input type="radio"/>								
	Was the technology transfer sufficient?	Was the study conducted in close collaboration between the Japanese team and the recipient country team?	Verification of facts by rating	Distribution of questionnaire sheets		<input type="radio"/>				<input type="radio"/>							
		What kind of knowledge and skills has the recipient country team acquired?	Contents of technologies transferred	Distribution of questionnaire answer sheets and interviews	<input type="radio"/>					<input type="radio"/>							
	Were communications sufficient?	Has the Japanese team explained the study procedures and progresses in detail?	Verification of facts by rating	Distribution of questionnaire answer sheets and interviews		<input type="radio"/>				<input type="radio"/>							
		Was the communication between the Japanese team and the recipient team sufficient?	Verification of facts by rating	Distribution of questionnaire answer sheets and interviews		<input type="radio"/>				<input type="radio"/>							
	Were enough data available?	Were the basic data fully available before starting the study?	Contents of the final report	Review of the final report	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>								
		Were the quantitative and qualitative data sufficiently collected?	Contents of the final report	Review of the reports	<input type="radio"/>												
	Were links to other studies or projects well-established?	Were there adjustments or interrelationships with the "○○study/project" (19○ ○-19○○XX)	Reports	Review of the reports and interviews						<input type="radio"/>	<input type="radio"/>					<input type="radio"/>	
Effectiveness	Were the proposals compiled after sufficient review?	Were the proposals developed in accordance with sufficient technical, economic, social and environmental analyses?	Proposed projects	Review of the final report and interviews	<input type="radio"/>				<input type="radio"/>	<input type="radio"/>							
		Were the proposals sufficiently feasible for the recipient country (in terms of both scale and requirements)?	Proposed projects	Review of the final report and interviews	<input type="radio"/>				<input type="radio"/>	<input type="radio"/>							
	Was the report properly structured and equipped with sufficient content?	Are the structure and contents of the final report understandable?	Structure and content of the final report	Review of the final report and interviews	<input type="radio"/>				<input type="radio"/>	<input type="radio"/>							

Five criteria	Evaluation items	Specific question	Data (example)	Collection method (example)	Japanese organization		Recipient country's organization (example)						International organization			
					JICA	A	B	C	D	E	F	G	H			
Impact	Utilization/preparation stage	<p>What kind of progress has been made toward project implementation, subsequent to the proposals derived from the development study?</p> <p>Have the proposals of the following development studies (examples) been reflected in the irrigated agriculture development projects devised by the implementation organization in the recipient country? (1) Improvement of ○○ (2) Enhancement of ×× conditions (3) Proper establishment of △ △ facilities</p>	Planned projects, and verification of facts by rating	Distribution of questionnaire sheets, interviews, and review of relevant documents	○			○								
	Utilization/post-utilization stage	<p>Were the proposals derived from the development study sufficiently applied to project implementation</p> <p>Which proposed projects derived from the development study were implemented as projects (the following examples)? In which year were they implemented, and what were the financial sources? (1) Improvement of ○○ (2) Enhancement of ×× conditions (3) Proper establishment of △ △ facilities</p>	List of project implementations and the contents, and verification of facts by rating	Distribution of questionnaire sheets, interviews, and review of relevant documents	○			○		○						
		<p>Have the proposals derived from the development study been conducted in accordance with technical recommendations?</p>	List of project implementations and the contents, and verification of facts by rating	Distribution of questionnaire sheets, interviews, and review of relevant documents	○			○		○						
		<p>What kind of effects have been produced in the target area by the implemented projects?</p>	(1) Expansion of irrigated area (2) Fluctuation in supply and demand of irrigation water (3) Improvement of productivity (4) Income changes, etc.	Distribution of questionnaire sheets, interviews, and review of relevant documents				○		○	○					

Relevance	<p>At the implementation stage of the development study, was the study consistent with development plans in the recipient country/region/organization, the activities of other donors, and the needs of the beneficiaries?</p>	<p>At the implementation stage of the development study, was the study's policies consistent with development plans by the government of the recipient country?</p>	National Economic and Social Development Plan	Review of National Economic and Social Development Plan, and relevant documents, such as development plans of the implementation organization	○											
		<p>At the implementation stage of the development study, was the study consistent with the "○○ study/project" ?</p>	Project report of the implementation organization in the recipient country	Review of the report compiled by the implementation organization of the recipient country	○			○			○					
		<p>At the implementation stage of the development study, have the needs of the beneficiaries been properly considered?</p>	Verification of facts by rating (whether farmers' organizations were involved in the implementation, etc.)	Distribution of questionnaire sheets, interviews, and review of relevant documents				○			○					
	<p>At the time of implementation of evaluation study, can the framework proposed in the development study satisfy the current needs?</p>	Has the implemented project been consistent with the current development plan of the implementation organization in the recipient country?	Verification of facts by rating	Distribution of questionnaire sheets, interviews, and review of relevant documents				○			○					

Five criteria	Evaluation items	Specific question	Data (example)	Collection method (example)	Japanese organization		Recipient country's organization (example)				International organization		
					JICA	A	B	C	D	E	F	G	H
Sustainability	Is the project proposed in the development study sustainable?	Which section takes responsibility both technically and financially for maintenance and management of the implemented plan?	Verification of facts	Interviews, and review of relevant documents				○		○			
		Are the beneficiaries technically capable of maintaining and managing the irrigation and drainage facilities at the field level?	Verification of facts	Interviews, and review of relevant documents				○		○			