Chapter 2 Issues in Ex-ante and Ex-post Evaluations

Outline of this Chapter:

Project evaluation at JICA has four types of project cycles: ex-ante evaluation, mid-term evaluation, terminal evaluation and ex-post evaluation. Since each evaluation type has a different purpose, the viewpoints and focuses of the Five Evaluation Criteria also slightly differ from each other.

This chapter describes the characteristics and issues to remember for each type of evaluation study, and also shows example cases, mainly for the evaluation grid and the evaluation interpretation. The basic concept of the evaluation, the flow of the investigations, and the theories for evaluation methods are the same for all types of evaluation study.

In project evaluations, examinations are basically conducted in view of all Five Evaluation Criteria, but depending on the timing of the evaluation study, the perception of each issue is different. For example, in the ex-ante evaluation before starting a project, “relevance” can be examined based on the actual situation, but from the other viewpoints, the survey can only be carried out based on forecasts and prospects. In a mid-term evaluation after the start of the project, “relevance” and “efficiency” can be evaluated based on the actual situation and performance, but “effectiveness” and “impact” can only be examined according to what is judged to be necessary and possible at that time for the evaluation and that depends on the degree to which an effect has been actually produced at mid-term. Table 3-2-1 summarizes these differences in the evaluation viewpoints for each type of evaluation study.

The depth and focus of the examination of each of the Five Evaluation Criteria may also differ according to the characteristics of a project, and the issues it faces. For example, for small projects, it may not be appropriate to conduct the survey using costly questionnaires, but instead using another simple method. Or, if the involved parties are aware of efficiency problems as an issue for a project, it may be necessary to conduct the study with a stronger focus on examining efficiency.

The evaluation methods and their application to each type of evaluation study explained from Chapter 1 through Chapter 3 of Part II are summarized in Figure 3-2-1.

Table 3-2-1 Differences in Evaluation Viewpoints for Each Project Evaluation Type

	Ex-ante evaluation	Monitoring Note 2	Mid-term evaluation	Terminal evaluation	Ex-post evaluation
Confirmation of performance	- Note1	●	●	●	✧
Grasping of implementation process	❍	●	●	●	✧
<Five Evaluation Criteria>					
Relevance	●	-	●	●	✧
Effectiveness	❍	-	✧	●	-
Efficiency	❍	-	●	●	-
Impact	❍	-	✧	✧	●
Sustainability	❍	-	❍	❍	●

●: Examination based on the actual situation and performance

❍: Examination based on forecasts and prospects

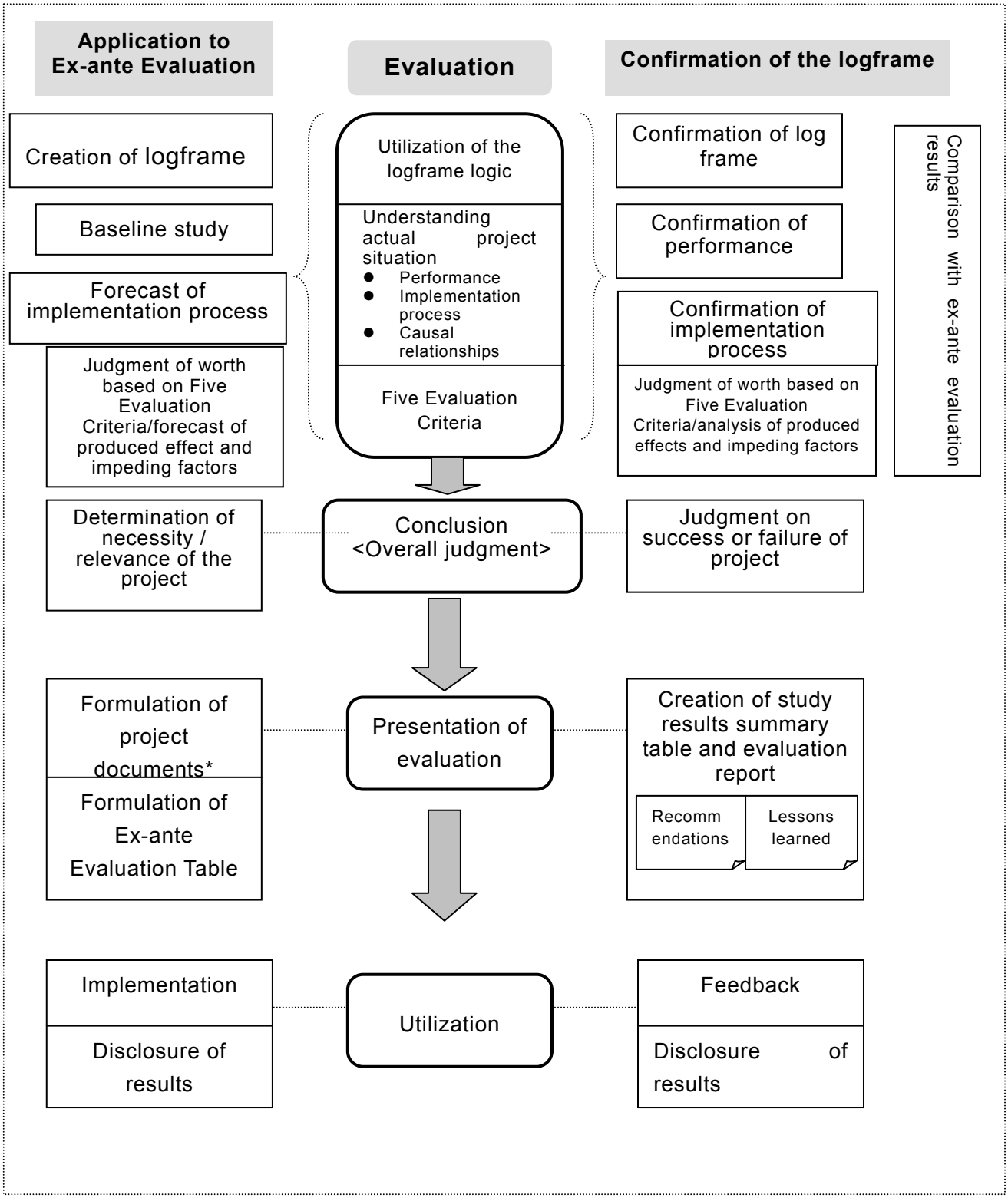
✧: Examination according what is judged necessary and possible for the evaluation

- : Full examination is not yet possible, or completed in a previous phase

Note 1: In case of an ex-ante evaluation, this means conducting a baseline study or establishing indicators.

Note 2: An examination based on the Five Evaluation Criteria is normally beyond the scope of monitoring, but for its operation and management, it is important to keep these Five Evaluation Criteria's viewpoints always in mind.

Figure 3-2-1 Project Evaluation Methods and Their Application to Evaluation Studies



1. Key Issues of Ex-ante Evaluation Studies

(1) Role of Ex-ante Evaluation Studies

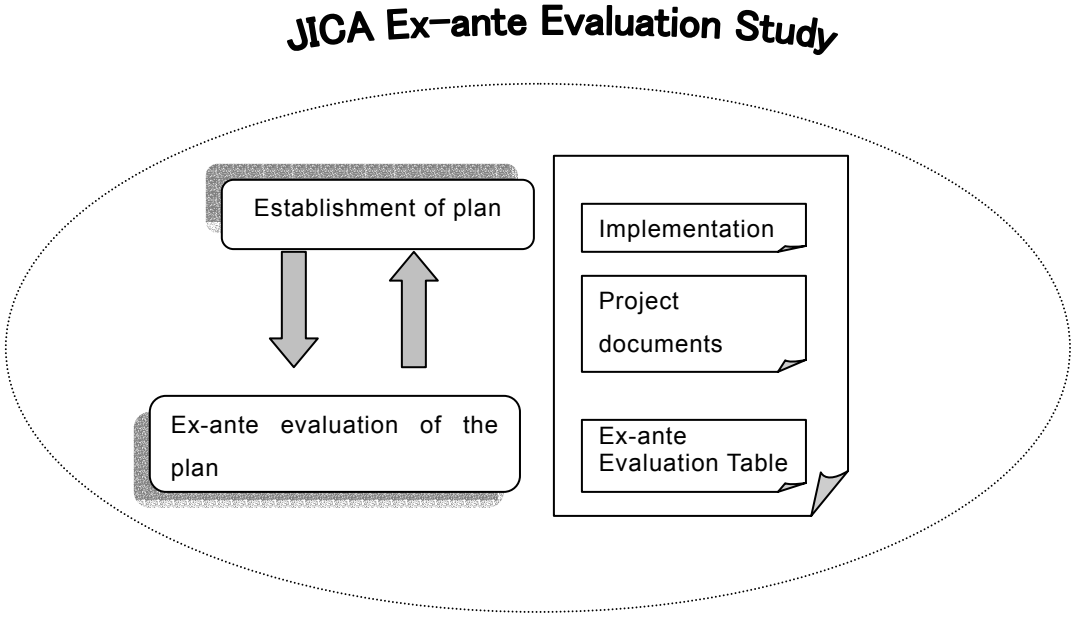
JICA's "ex-ante evaluation studies" have largely two purposes: i) project planning and ii) the evaluation planning. In ex-ante evaluations at JICA, an ex-ante evaluation is planned and performed according to the Five Evaluation Criteria. The results of ex-ante evaluations are utilized to improve the plan, and to determine the relevance of the project. The ex-ante evaluation provides information to serve as a basis for monitoring and evaluation after starting a project and is an indispensable step to the appropriate management of a project throughout the project cycle.

The output of ex-ante evaluation consists of "project documents," which include the "logframe (PDM at JICA)" and the "Ex-ante Evaluation Table." Inhibiting and restraining factors identified in an ex-ante evaluation are reflected in the planning of the project as necessary, or are written into the columns for the Five Evaluation Criteria in the Ex-ante Evaluation Table as issues to remember after starting a project.

This document mainly describes the "evaluation" part from the ex-ante evaluation study. It does not elaborate on planning theory. Planning theory includes baseline study methods and logframe theory as well as how to build a logframe (see Attachment 1), how to establish indicators, how to establish targets, and methods of risk analysis. This chapter of the Evaluation Guidelines uses example cases to explain mainly the methods for examining the project concepts that were planned through these processes using the Five Evaluation Criteria, and how to create an "Ex-ante Evaluation Table."

Note that also in cases where the ex-ante evaluation is implemented in a simplified form, for example, where no ex-ante evaluation study team is dispatched and no project documents are created, the ex-ante evaluation should be performed based on the concept and evaluation viewpoints shown here, and the results should be incorporated into the implementation plan.

Figure 3-2-2 The Two Roles of Ex-ante Evaluation Studies



(2) Purpose and Evaluation Viewpoints of Ex-ante Evaluation Studies

Ex-ante evaluations evaluate plans before starting a project. The evaluation results are used to improve the plan and to judge the relevance of the project. Consequently, the evaluation is first performed primarily with emphasis on relevance. Relevance evaluation means examining whether JICA's cooperation is relevant from the viewpoint of i) necessity – does the need exist in the applicable region, society and among residents?, ii) priority – is the development policy of the partner country in line with Japan's priorities?, and iii) the adequacy of the project as a means – why was a project with this kind of project objective selected? Are the target region and the target group appropriate? – and others. When evaluating the other evaluation criteria (effectiveness, impact, sustainability, etc.), the point that differs most from the evaluation studies of the mid-term evaluation and the evaluations after that is that the evaluation is based on forecasts and prospects instead of performance and implementation process data from the past. Concretely speaking, the examination is about whether an effect will really be produced when the project is implemented according to this plan, and whether the project is planned in a way that that effect can reliably be grasped and verified.[4]

[4] One method for evaluation studies that includes the viewpoint of whether the effect can be verified and grasped is "Evaluability Assessment." This method uses qualitative investigation focusing on the logicality of the project, on how clear the objective is, and on the established indicators, trying to identify whether the evaluated project fulfills the

Examinations that do not evaluate performance but rather the validity of a plan based on forecasts and prospects include essentially two aspects. One is to examine whether each component of a project is clear and reasonable. Here, the adequacy of the established indicators and targets, the appropriateness of the means of obtaining the indicators, and other issues are considered based on their relationship with the baseline data. The examination looks at whether the forecasted effect is achievable and desirable. When looking at their relationship with the baseline data, it is important to first use a method of investigation to obtain such data and then consider whether monitoring is possible after that. If the means of obtaining the indicators are too costly to be practical, such data cannot be utilized. Making recommendations about the appropriate indicators, targets and the means of obtaining indicators through this kind of examination also builds a base for the monitoring and evaluation after starting a project. (Refer to 2-1-3 (4) on how to verify indicators and target values.)

The other aspect is to examine whether the structure of the project plan (i.e., the relation between the purpose and the means) is adequately formulated and whether there are prospects that the expected objective will be achieved. This viewpoint questions the logicality of the causal relationships between the individual components of a project. A thorough examination as to whether the planned activities for a certain objective are adequate must also be conducted. For these examinations, the “logic model” concept, an evaluation theory described in Part II Chapter 1, can be utilized (refer to 2-1-3). When trying to examine the project plan along a logframe (the model of cause and effect in which inputs lead to activities which in turn lead to outputs which ultimately lead to the objective), the output to achieve an objective may be insufficient, or the activities or inputs to achieve an output may be insufficient. The assessment may also find that the intended approach of a project is not efficient, because its effect would be small when compared to the investment. Another possibility is that important assumptions/risks are too high and that their influence on the project is too large. Giving feedback on the results of these examinations to the planning work in order to draft a better and more appropriate plan leads to an effective project management.

(3) Ex-ante Evaluation Checklist

Ex-ante evaluation studies are mainly about “plans,” and therefore both the planning and the research that go into conducting an evaluation are conducted and determined simultaneously. For this reason, there is no work done according to a predetermined evaluation design as in the other evaluation studies. The following

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minimum conditions for evaluability. (For details, refer to Rossi, PH., Freeman, H.E., Lipsey, M.W., Evaluation – A systematic approach, 6th ed, 1999, SAGE Publication, p. 157.)

tables are checklists of the viewpoints for an evaluation based on a draft project plan.

These checklists need to be referred to before the on-site evaluation in an ex-ante evaluation study, in order to confirm whether the survey items are complete. Then, this needs to be reflected in the plan for the study. However, note that the following are only major checkpoints. Survey items corresponding to the contents of the project need to be added as necessary.

Table 3-2-2 Major Checkpoints in Ex-ante Evaluation Studies (items shown with a gray background are examined based on the actual situation and performance)

Evaluation Item	Evaluation Checkpoint
Planning * Some issues are the same as in the evaluation items shown below. They are still mentioned at the head of this table as issues to confirm first in an ex-ante evaluation	<u>Plan</u> ☐ Are the overall goal, project objective, and output clear? Does each indicator accurately express its respective meaning? ☐ Are objectivity and reproducibility (the same kind of data can be collected repeatedly) ensured in the methods for obtaining each indicator? ☐ Is the target group clearly established? <u>Causal relationships</u> ☐ Are the relationships "activities → output → project objective → overall goal" relationships of "means → purpose"? ☐ Are important assumptions for the production of the output established appropriately? (Is the logic "activities → important assumptions → output" correct?) ☐ Are important assumptions for the achievement of the project objective established appropriately? (Is the logic "output → important assumptions → project objective" correct?) ☐ Are important assumptions for the achievement of the overall goal established appropriately? (Is the logic "project objective → important assumptions → overall goal" correct?)
Implementation process (Prospect)	☐ Are there any problems in the project management system (monitoring system, decision-making process, etc.)? ☐ Does the project have a high recognition in the implementing agency or counterpart? ☐ Will a suitable counterpart be placed? ☐ Is the input to conduct activities as planned guaranteed? ☐ Does the target group or do related organizations participate in the project to a high degree? Is the recognition of the project high? Or, is an increase in participation or recognition expected? ☐ Are there any other matters or factors that hinder the activities and should they be remembered in the process of implementing the project?

(Major Checkpoints in Ex-ante Evaluation Studies – continued)

Evaluation Item	Evaluation Checkpoint
<<Five Evaluation Criteria>>	
Relevance	Necessity ☐ Is the project in line with the needs of the target country, region, and society? ☐ Is the project in line with the needs of the target group? Priority ☐ Is the project consistent with the development policy of the partner country? ☐ Is the project consistent with Japan's foreign aid policy and JICA's plan for country-specific program implementation? Suitability as a means ☐ Is the project adequate as a strategy to produce an effect with respect to the development issues of the target field and sector of the partner country? (Are the approach and the target region of the project adequate? What synergy effects are there from providing aid in cooperation with other donors?) ☐ Is the selection of the target group appropriate? (Target, volume, gender distribution, etc.) ☐ Are there any ripple effects beyond the target group? ☐ Are the benefits of the effect and the burden of the costs fairly distributed? ☐ Does Japan have a technology advantage? (Does Japan have accumulated know-how on the target technology? Can Japan's experiences be put to use? etc.)
Effectiveness (Prospect)	Project objective ☐ Is the project objective clearly mentioned? ☐ Do the indicators for the project objective accurately express the objective? ☐ Are the indicators and targets of the project objective appropriate in light of the baseline data? ☐ Are the means of obtaining the indicators for the project objective suitable? (Are the required indicators measured? Are they not too costly? Are they reproducible? Are they usable as means for monitoring? etc.) Causal relationships ☐ Will the project objective be achieved as the effect of the project when the project is complete? ☐ Is sufficient output planned to achieve the project objectives? ☐ Are the important assumptions from the output to the project objective perceived correctly? Is the possibility high that the important assumptions are true? ☐ Are there factors that impede the achievement of the project objective?

(Major Checkpoints in Ex-ante Evaluation Studies – continued)

Evaluation Item	Evaluation Checkpoint
Efficiency (Prospect)	Output ☐ Do the indicators for output accurately express their meaning? ☐ Are the targets for the output appropriate? ☐ Are the means of obtaining the indicators for the output appropriate? (Are the required indicators measured? Are they not too costly? Are they reproducible? Are they usable as means for monitoring? etc.) Causal relationships ☐ Are sufficient activities planned to produce the output? ☐ Is input of an adequate quantity and quality planned to perform the activities? ☐ Are the important assumptions from the activities to the output perceived correctly? Is the possibility high that the important assumptions are true? Timing ☐ Is the timing of the input appropriately planned? Cost ☐ Does the output justify the cost to be invested compared to similar projects (comparison with overall or unit costs of similar projects of JICA and other donors or similar projects conducted by the applicable country.) (Are there no alternative means to achieve the same for less cost? Is it not possible to realize a higher achievement level at the same cost?) ☐ Does the project objective justify the cost to be invested compared to similar projects (comparison with overall or unit costs of similar projects of JICA and other donors or similar projects conducted by the applicable country.) (Are there any alternative means to achieve the same for less cost? Is it not possible to realize a higher achievement level at the same cost?)

(Major Checkpoints in Ex-ante Evaluation Studies – continued)

Evaluation Item	Evaluation Checkpoint
Impact (Prospect)	Overall goal: ☐ Do the indicators for the overall goal accurately express the goal? ☐ Are the indicators and targets of the overall goal appropriate in light of the baseline data? ☐ Are the means of obtaining the indicators for the overall goal appropriate? (Are the required indicators measured? Are they not too costly? Are they reproducible? Are they usable as means for monitoring? etc.) Causal relationships ☐ Are there prospects that the overall goal will be produced as an effect of the project? ☐ Are the relationship and logic of the overall goal and development issues clear? ☐ Are the important assumptions from the project objective to the overall goal perceived correctly? Is the possibility high that the important assumptions are true? ☐ Are there factors that impede the achievement of the overall goal? Ripple effects ☐ Are any effects or influences beyond the overall goal assumed? Are measures taken to ease particularly negative influences? * Influence on the establishment of policies and on the preparation of laws, systems, standards and the like * Influence on social and cultural aspects such as gender, human rights, rich and poor * Influence on environmental protection * Influence from technological changes * Economical influence on the target society, project parties, beneficiaries, etc. ☐ Are there different positive and negative influences due to differences between genders, ethnic groups, or social layers?

(Major Checkpoints in Ex-ante Evaluation Studies – continued)

Evaluation Item	Evaluation Checkpoint
Sustainability (Prospect) * What is indispensable to secure sustainability (continuality of the effect) depends on the project contents. The study should be conducted after looking at this.	<u>Policies and systems</u> ☐ Will policy aid continue after the cooperation is finished? ☐ Are the relevant regulations and legal systems prepared? Are there plans for their preparation? ☐ For projects targeting pilot sites, are efforts secured to aid the spread afterwards? <u>Organizational and financial aspects</u> ☐ Is there organizational capacity to implement activities to produce effects after the cooperation has ended? (Placement of human resources, decision-making process, etc.) ☐ Is a sense of ownership towards the project sufficiently ensured in the implementing agency from the time before the start of the project? ☐ Is the budget secured (including operating expenses)? Are sufficient budget measures taken on the side of the applicable country? ☐ How high is the probability that the budget increases in the future through the implementation of the project? Are the measures to secure budgets sufficient? <u>Technology</u> ☐ Are the methods of technology transfer used in the project acceptable? (Technology level, social and conventional factors, etc.) ☐ Is the maintenance and management plan for that equipment which will be introduced in the project appropriate? ☐ Does the project contain a mechanism for its dissemination? ☐ How high is the probability that the implementing agency can maintain the mechanism for its dissemination? ☐ For projects targeting pilot sites, is the technology one that can be disseminated to other sites? <u>Society, culture, and environment</u> ☐ Is there any possibility that a sustained effect is inhibited through a lack of consideration for women, the poor, and the socially vulnerable? ☐ Is there any possibility that a sustained effect is impeded through a lack of consideration for the environment? <u>Others</u> ☐ Are there any other factors that might inhibit sustainability?

Necessity of adjustments	(Considered based on the results of above evaluation) ☐ Is an achievement of the project objective possible in the current condition (changes in the target group or target society)? ☐ Is it necessary to adjust the input, activities, and output? ☐ Are there any new important assumptions that influence the project? ☐ How have problems, issues, risks, etc., pointed out in the ex-ante evaluation changed? What issues must be remembered for the future?

(4) Interpretation and Summary of Ex-ante Evaluation Data

The interpretation of ex-ante evaluation data centers on the Five Evaluation Criteria. The interpretation is summarized in the "Ex-ante Evaluation Table." In ex-ante evaluation studies, impeding and restraining factors identified in the evaluation process need to be reflected in the plans which are included in the project documents. Moreover, the project needs to be proposed in a way so that, as far as possible, it is not affected by these factors. On the other hand, matters that were judged to require review after the project had already begun are written into the applicable item of the Five Evaluation Criteria column in the Ex-ante Evaluation Table. These issues to remember are important also as targets for monitoring after the start of the project and need to be positioned as items subject to monitoring, together with a check of the achievement level of objectives and output.

The Ex-ante Evaluation Table summarizes an outline of the ex-ante evaluation results report. The grounds as to why the interpretation was done in this way, etc., have to be submitted as attachments to the project documents (for example, interview results, material analysis results, results of questionnaire survey, and other results).

Table 3-2-3 gives a description of each item in the Ex-ante Evaluation Table and summarizes the issues to remember when filling in the table. Case 1 presents an example on how to fill in an Ex-ante Evaluation Table.

Table 3-2-3 Ex-ante Evaluation Table: Contents and Issues to Remember

(for mid-size and larger technology cooperation projects)

Item	Contents	Issues to Remember
1. Project Title	The title of the project	
2. Outline of the cooperation	Briefly describe the project that the ex-ante evaluation was about. [Main Issues] (1) Outline of mainly the project objective and output (2) Period of cooperation (3) Total amount of cooperation (Japan) (4) Implementing Agency of Partner Country (5) Cooperation Agency in Japan (6) Target Group, Beneficiaries, size, etc.	● Take care not to write too many details. The detailed plan is described later. ● It is sufficient if the reader, including a third party, can grasp an outline of what the ex-ante evaluation is about. ● The beneficiaries in (6) are the beneficiaries on the project objective level (target group.) ● If necessary, attach a map or photograph(s) of the project site.
3. Necessity and positioning of the cooperation	Briefly describe not only the background for the request, but also the process up to the cooperation of Japan and the reason, etc. [Main Issues] (1) Current situation and problems (2) Positioning within the national policies of the government in the partner country (3) Relation within Japan's foreign aid policy, positioning within JICA's plan for country-specific program implementation (positioning within JICA's programs)	● Clearly describe important issues that are the background for the project, and the positioning of the project in order to solve these. ● If necessary, attach a map or photograph(s) explaining the current situation and problems.
4. Framework of the cooperation	Here, briefly describe the contents of the logframe. Write the description in the order shown below so that it is understandable also by persons who do not know the logframe. [Main Issues] (1) Objective of the cooperation (outcome) i) Objective to be achieved at the end of the cooperation (project objective), indicators, and targets ii) The objective expected to be achieved after the end of the cooperation (overall goal), indicators, and targets (2) Output and activities i) The output, the activities for it,	● Try to write in a way that an external third party can understand the description. ● The "Objective to be achieved at the end of the cooperation" is the "project objective." ● The "Objective expected to be achieved after the end of the cooperation" means the "overall goal." ● The output should be written sequentially together with the corresponding activities, indicators, and targets. It is not necessary to mention all activities.

	indicators, and targets ii) …… (3) Inputs ① Japan (total amount: yen) Dispatch of experts, equipment provided, acceptance of trainees, others ②Country A (total amount: yen) Counterpart personnel expenses, arrangements for facilities and land, others	Give a description that summarizes the major activities (examples.)
	(4) External factors (important assumptions that are expected to come true.) i) Preconditions ii) Important assumptions for achieving the output iii) Important assumptions for achieving the project objective iv) Important assumptions for achieving the overall goal	
5. Evaluation results by Five Evaluation Criteria	Summarize the data interpretation, the judgment on the worth of the project, and restraining factors for each of the Five Evaluation Criteria. [Main Issues] (1) Relevance (2) Effectiveness (3) Efficiency (4) Impact (5) Sustainability	● Clearly describe the grounds and the reasons for each evaluation. However, survey analysis results and data should be attached separately. ● Issues to remember when implementing the project should be described in concrete words together with the grounds. These will become important also as items for monitoring after the start of the project.
6. Consideration for poverty, gender, and environmental issues	Write down negative impacts such as poverty, gender, environment, war and peace, etc. and the project strategy to allow for these.	
7. Lessons learned from past experience	Write down what was learned from evaluation results of other similar projects and how they were reflected to improve the project.	● Use evaluation reports (recommendations, lessons learned) from the past or the JICA knowledge site, etc., as sources to obtain information on lessons learned from similar objects.

8. Future evaluation plan	Write down the schedule for the mid-term evaluation, the terminal evaluation, and the ex-post evaluation.	● If there are any special remarks regarding the evaluation plan, write them down here (for example, the implementation of a baseline study after the start of the project, etc.)

Case 1: Summary of Ex-ante Evaluation

"Project to Reinforce Secondary Science and Mathematics Education in Country A"

(This is based on an actual ex-ante evaluation case, but for this document, some changes and additions were made.)

1. Project Title

Project to Reinforce Secondary Science and Mathematics Education in Country A

2. Outline of the cooperation

(1) Outline of the project objective and output

Establish a system to train trainers in the Western region (five prefectures), implement training of teachers in service by these trainers, and set up a resource center in order to improve the science and mathematics education in country A.

(2) Period of cooperation:	(3) Total amount of cooperation (Japan)
September 2003 through August 2008 (5 years)	Yen
(4) Implementing Agency of Partner Country	(5) Cooperation Agency in Japan
Ministry of education, university for the training of science and mathematics teachers (central training center and district training centers)	University B

Description of the seriousness of the problem. This is one viewpoint for evaluating

(6) Target Group and Beneficiaries

Approximately 3,000 teachers of the Western region (five prefectures) (approximately 650 secondary schools)
(Map attached – omitted here.)

3. Necessity and positioning of the cooperation

(1) Current situation and problems

Since it attained independence in 1963, country A has been working on education development on a national scale. To foster human resources fast, the expansion and enhancement of education institutions was put up as a policy of top priority, and more than 30% of the government's operating budget was allocated to education. However, the situation now is that a significant degradation in quality is being pointed out mainly for science and mathematics because of a lack of textbooks, teaching materials, facilities, and a lack in skills of science and mathematics teachers. In the background are overwhelmed curriculums and financial problems. For a country that strives for industrialization, the improvement of science and mathematics education is a pressing issue. Especially in the Western regions (five prefectures), the academic abilities of students and the quality of teachers are even lower than in the rest of the country, and efforts for improvement are urgently needed.

One reason for the selection of the approach (training of teachers)

Reason for selection of target region

(2) Positioning within the national policies of country A's government

The “enhancement of secondary science and mathematics education” is a major policy of country A’s national development plan. Country A is trying to improve the quality from both the material and the human aspect, by preparing facilities and teaching material or by expanding the training of teachers. Especially with regards to the training of teachers, the master plan for education and training in this country proposes training teachers currently in service. The poverty reduction strategy paper (PRSP) also contains this proposal as part of human resource development.

Description of the priority

(3) Positioning within the Japanese foreign aid policy and JICA's plan for country-specific program implementation

In Japan, the general ODA framework and the mid-term ODA policies are placing a high priority on aiding the training of human resources, especially in the education field in developing countries in order to reduce poverty and promote the development of society. The country-specific aid plan for country A also positions the development of education and human resources as a focus field. This project is further a part of the program to reinforce science and mathematics education in JICA’s plan for country-specific program implementation.

4. Framework of the cooperation

(1) Objective of the cooperation (outcome)

i) Objective to be achieved at the end of the cooperation (Project Purpose)

The secondary education of science and mathematics in the Western region should be reinforced.

<Indicators/targets> Based on monitoring and evaluation methods* developed in the project, the degree of change in instruction will be evaluated through ratings of the following viewpoints.

- Improvement in teacher behavior (average of more than 3 in an evaluation of 0 – 4.)
- Improvement in teaching methods (average of more than 3 in an evaluation of 0 – 4.)
- Improvement in student behavior (average of more than 3 in an evaluation of 0 – 4.)

Indicators are written concretely, together with

* The methods for monitoring and evaluation will be developed by the monitoring and evaluation taskforce due to be established in the project. The main indicators to measure the outcome and effect of the project will be teaching skills, the degree of change in instruction, and the training capacity. For each of these main indicators, detailed checklists will be created.

ii) Objective expected to be achieved after the end of the cooperation (Overall Goal):

Science and mathematics skills of youth in the capital area should improve.

<Indicators/targets> By 2010, the average score in national science and mathematics examinations of youth in the capital area should reach the national average.

(2) Output and activities

i) Output: In the central training center, trainers acquire training skills.
Activities: Implement training for teacher trainers
<Indicators/targets> Indicator for the training capacity (average of at least 3 in a five-step evaluation of 0-4), training staff headcount of 200, indicator for improved capabilities of training staff (at least two issues more after the implementation than before)

ii) Output: A re-training system for teachers in service is established in the district training centers.
Activity: Implement re-training of teachers in service by teacher trainers in the district training centers
<Indicators/targets> 3000 attendees in total, indicator for training capacity (at least two issues more after the implementation than before)

iii) Output: The role of training centers as resource centers is reinforced.
Activity: Develop teaching material, reorganize and distribute literature
<Indicators/targets> Development of 30 types of teaching material at the central center, publish at least 20 new documents at each training center (five locations), establish a system for distribution to the target secondary schools.

(3) Inputs

i) Japan (total amount: approximately yen)
- Dispatch of experts
  Long-term: 12 (chief adviser, physics education, chemistry education, biology education, mathematics education, educational assessment, clerical services and coordination)
  Short-term: planned for the following fields.
  Educational government administration, educational assessment, physics education, mathematics education, chemistry education, biology education, science education
- Provided equipment (total amount: approximately yen)
  Equipment to produce teaching materials, equipment for experiments, audio-visual equipment, books, cars, etc.
- Acceptance of trainees (total amount approximately yen)
  About 8 persons a year

ii) Country A (total amount: approximately yen)
- Counterpart personnel expenses (30 persons)
- Arrangement for facilities and land, etc.
  Training rooms and dormitory in central training center, office within ministry of education, district training centers
- Project activity expenses (approximately yen per year)

(4) External factors (important assumptions that should come true)

i) Preconditions
(nothing in particular)

ii) Important assumptions to achieve the output
- 80% of the training staff trained will continue to work in training

iii) Important assumptions to achieve the project objective

- The support of the regional boards of education continues
- The trained teachers continue to work in science and mathematics education

iv) Important assumptions to achieve the overall goal

- Facilities and equipment for science and mathematics education are adequately maintained

5. Evaluation results based on Five Evaluation Criteria

As a result of an evaluation from the viewpoints below, we judge that implementing the cooperation is appropriate.

(1) Relevance

For the following reasons, this project is judged to be of high relevance:

- As mentioned in "3. Necessity and positioning of the cooperation" of this Ex-ante Evaluation Table, country A's national development plan, education development plan, PRSP, etc., make it clear that a reinforcement of science and mathematics education is indispensable to raise human resources and attain industrialization. There is also a recognizable financial commitment of the government.

- As for secondary education in country A, the number of teachers in relation to the number of students is sufficient, even to the degree that the World Bank and the IMF recommended a reduction in teachers in order to reduce public outlay. In the problem analysis, the aspect of equipment and facilities was even better. However, problems in the skills and behavior of the teachers were pointed out as a serious issue, and we judge that the approach of this project, which takes the strategy of re-training teachers in service, is appropriate.

- The country-specific aid plan for country A also positions the development of education and human resources as a focus field, and especially the reinforcement of science and mathematics education as a development issue.

- The Western regions were made the target of this project because here, a deterioration of education can be seen compared to the rest of the country. Priority and necessity are extremely high, and selecting this region as the target is very adequate.

- In this field, we can sufficiently put to use Japan's experiences with the education development process in the past, this cooperation is of high relevance.

(2) Effectiveness

For the following reasons, this project promises to be effective:

- The target group consists of approximately 3,000 teachers in service, and the improvement of their teaching skills is established as an indicator. In addition, the monitoring to obtain this indicator is conducted, and the project objective is clear.

- To produce an effect, the training capacity of the training centers on the central and regional level must be improved. 30 staff members are already assigned to the central training center, and a list of 200 teachers that are candidates for trainers is also created. Monitoring through an indicator for training capacity (capacity building indicator) is also planned. This and other reliable efforts promise to lead to an effective project implementation.

- One of the important assumptions – the continuous support of the regional educational boards – will likely occur, because the commitment at this point is high.

- From the issues mentioned above, we judge that high-quality instruction by teachers currently in service can be achieved through three means: the construction of a training system (centered on the central center), the implementation of training, and the enhancement of the resource center.

(3) Efficiency

For the following reasons, this project promises to be efficient:

- The long-term experts are already securely arranged. The majority of the long-term experts have experience as Japan Overseas Cooperation Volunteers and can be expected to grasp the actual situation in country A and engage in field activities in an efficient way.

- The existing facilities and equipment in the training centers are planned to be used as much as possible, and copiers, personal computers, and equipment for science and mathematics experiments included in the plan are all due to be procured within country A, so that the cost for equipment and material (yen) is low compared to similar projects.

- By training 200 teacher trainers, 3,000 teachers can be trained, and approximately 200,000 students will probably enjoy the benefit from this. The cost-benefit performance of this project is high also compared with similar projects (science and mathematics education).

- At this time, an important assumption is the stability of the trainer work force, but a qualification system for trainers is also under consideration, and the probability that 80% of the trainers will stay in their positions is high.

(4) Impact

The impact of this project is expected to be as follows.

- The overall goal to improve the science and mathematics skills of youth promises to be realized within three to five years after the end of the project by appropriately re-training the teachers currently in service. The risk lies in whether it will be possible to prepare the experimental equipment and facilities required for science and mathematics education in each target school. Currently, procurement plans for related equipment are in progress as part of the science and mathematics education reinforcement program (development issue), and there will probably be synergy effects with this.

- Through the construction of a training system in this project, there is a possibility that teachers will be trained on a nationwide basis with the same kind of mechanism,

and we can expect that the university for the training of teachers takes the initiative to expand this system to other fields beyond science and mathematics (impact on organizations and systems).

- One negative impact could be a widening of the education gap between the Western regions and other regions. We think that to ensure that the results of this project expand on a nationwide scale, continued encouragement to the ministry of education and coordination with other donors such as the World Bank are required.

(5) Sustainability

As shown in the following, the effects of this project promise to be continued by the partner government also after the end of this project.

i) Political and financial aid

This project is positioned as a part of human-resource development in the PRSP. It continually trains teachers by building a training system on the central and the regional level. The commitment to supporting policies and systems is high. The education development plan of country A also clearly mentions the reinforcement of science and mathematics education, so that the budget can also be expected to be secured on a continual basis.

ii) Establishment of a national trainer system

Giving the teacher trainers a qualification is very important as an incentive. This could become a means not only to ensure stability in training resources, but also to maintain the quality of the training in the future. Country A has stated that, at this point of time, a system like this is under consideration. We need to aid the introduction of this system to secure sustainability of this project.

iii) Participatory strategy

To ensure sustainability, a sense of ownership among the parties of the partner country with respect to this project is important. In this project, we plan to take a strategy where we involve the parties of secondary education in each region (regional education offices, heads of schools, teachers, students and parents) using "participation" to develop a training organization/system and training curriculum that is in line with the actual situation in country A. For example, the teacher trainers are selected upon recommendation of the regional boards of education, and for the operation and management of the training, a training organization committee is established which consists of members representing the positions of the central and the district training centers. We will further include a mechanism to aggregate the opinions of the schools in the regions, and hold regular conferences. These kinds of efforts promise an increased sense of ownership, and we can expect that they become the base for continued training and expansion on a nationwide scale after the end of the project.

6. Consideration for poverty, gender and environmental issues

Giving consideration to gender, the project implements the following: i) considering gender balance in the recommendation of teacher trainers, and ii) taking statistics of the genders of the final beneficiaries – the students – to accumulate them as project data.

7. Lessons learned from past experience

Existence of similar projects: yes

In similar projects in the past, both the donor and the receiving side were held the stereotypical view that the cause for the bad shape of science and mathematics education was in a lack of educational facilities and equipment. However, with improvement only of facilities and equipment, effects hardly sustained, and one lesson learned was that the aspects of school management and the skills of the teachers are also important. In the baseline study at the start of the project, investigations were made not only with respect to facilities and equipment. Instead, the investigation also focused on the attitude of teachers towards instruction, and instruction methods, and the fact that it was found that there are significant problems on the human side influenced how the strategy of this project was built.

8. Future evaluation plan

- Mid-term evaluation: around February 2006
- Terminal evaluation: around February 2008
- Ex-post evaluation: planned for implementation around three years after the end of the cooperation

2. Issues of Monitoring and Mid-term Evaluation Studies

(1) Purpose and Basic Concept of Monitoring

Monitoring is routine work that is project-internal. After a project begins, monitoring checks whether activities are performed and output produced as planned, and makes adjustments if needed. Monitoring is a pillar of management work, managing the objectives initially established in the plan and revising activities and output in response to the various changes during the project implementation.

To perform monitoring in an appropriate way, an organizational system needs to be established within the project at the planning phase. Sufficient considerations as to who monitors what and when, and through what kind of decision-making process the results are reflected in adjustments, etc., must be conducted before the start of the project. Monitoring mainly verifies the output, activities, input, and important assumptions of the logframe and carefully keeps track of the actual situation of the implementation process not mentioned in the logframe. Monitoring helps to consider whether the activities should be continued as planned, whether the probability that the important assumptions are true is high, and whether there are prospects that the objective will be achieved. When doing so, the objectives, output indicators, and targets established in the ex-ante evaluation study become the base for the comparison with the plan. The issues to remember written into the Ex-ante Evaluation Table need to continue to be a focus of follow-up in monitoring. Table 3-2-4 gives a summary of general monitoring items.

Table 3-2-4 Main Checkpoints in Monitoring

Monitoring Item	Main Checkpoints of Monitoring
Performance	☐ How is the actual input? ☐ To what degree is output achieved?
Production of output	☐ Is output produced as planned? ☐ Are the important assumptions from the activities to the output true? ☐ Do the “issues to remember” singled out in the ex-ante evaluation pose no problem? ☐ What factor impedes the production of output?
Activities and implementation process	☐ Are activities implemented as planned? ☐ Is there no problem in the method for technology transfer? ☐ If activities are not as planned, what factor impedes the activities? ☐ Were the preconditions satisfied? ☐ Is there sufficient communication within the project? ☐ Is there sufficient communication between the JICA headquarters, the local office, and the project? Do the JICA headquarters and the local office take appropriate measures and give appropriate advice for the operation and management? ☐ Does the project have a high recognition in the implementing agency or counterpart? Is there a strong sense of ownership? ☐ Is the degree of participation of the target group and related

	organizations in the project high? Is the recognition with respect to the project high? ☐Do the “issues to remember” singled out in the ex-ante evaluation pose no problem?
Input	☐ Is input performed as planned? ☐ Is there no problem in quality, quantity and timing of the input? ☐ Is the input sufficiently put to use in order to produce output? ☐ If there is a problem, what is the impeding factor? ☐Do the “issues to remember” singled out in the ex-ante evaluation pose no problem?
Necessity of adjustments	(Considered based on the results of monitoring the items above) ☐ Is an achievement of the project objective possible in the current condition (changes in the target group or target society)? ☐ Is it necessary to adjust the input, activities and output? ☐ Are there any new important assumptions that influence the project? ☐What issues must be remembered for the future?

(2) Purpose and Evaluation Viewpoints of Mid-term Evaluation Studies

Mid-term evaluations are performed in the middle of a project (in five-year projects, at the time when about two and a half years have passed). Their purpose is to verify whether the project has been implemented smoothly and is on its way to produce effects. In addition, mid-term evaluations contribute to an improvement of the project contents. This evaluation is conducted in the middle of a project term and is based on information on the performance and the implementation process up to then. Concretely speaking, mid-term evaluations focus on relevance and efficiency, together with impeding and contributing factors. An analysis of these impeding and contributing factors must also be conducted. As for how effectiveness and impacts are showing themselves, the future trends and feasibilities are examined based on the output performance and the activity status. Sustainability is examined based on prospects. Particularly with respect to effectiveness, thorough studies are required as to whether there are prospects that effectiveness can be achieved in the remaining half-term of the project. (Refer to Table 3-2-1)). If any negative impacts start to show while the project is under way, the project strategy is changed based on an analysis of their causes.

Mid-term evaluation provides a very good opportunity to revise the project. Even with projects that were planned through an ex-ante evaluation, the actual social conditions and various internal and external factors required for the success of the project often become clearer after the start of the activities. Based on this, it is important to verify once more whether the project strategy is fine as it is (confirmation of relevance), whether anything should be added to the activities in

order to produce an effect, or whether the timing and quality of the input are sufficient. It is further important to implement concrete improvement measures and give recommendations. If the logframe is not sufficiently shared among the parties, or the strategy or activities are insufficient, or the objective is unclear, the occasion of the mid-term evaluation needs to be put to maximum use for a thorough revision. As a result of any such revisions, many projects recover and even produce effects that deserve special mentioning. It is also important that the mid-term evaluation stops mistakes in the implementation of the project (refer to Implementation Failure: 1-2-2).

Based on the results of the mid-term evaluation, the project and JICA's implementing division - the main addressees of the feedback - work on a revision of the project, including a revision of the logframe.

Table 3-2-5 Major Checkpoints in Mid-term Evaluation Studies (items shown with a gray background are examined based on the actual situation and performance)

Evaluation Item	Evaluation Checkpoint
Verification of performance	☐ Is input implemented as planned? (compare with planned values) ☐ Is output produced as planned? (compare with targets) ☐ Are there prospects that the project objective will be achieved? (compare with targets)
Verification of implementation process	☐ Are activities implemented as planned? ☐ Are there no problems in the method for technology transfer? ☐ Are there no problems in the project management system (monitoring system, decision-making process, function of JICA headquarters and local office*, communication mechanisms within the project, etc.)? ☐ Does the project have a high recognition in the implementing agency and counterpart? ☐ Is a suitable counterpart assigned? ☐ Is the degree of participation of the target group and related organizations in the project high? Is the recognition with respect to the project high? ☐ Did any other problems occur during the process of implementing the project? What is the cause? * A question to verify the adequacy of the management capability of the implementing division at JICA and the local office. For example, rapid response and advice to adjustments from monitoring during implementation, sufficient communication with the project site, cooperation with related agencies in Japan, etc.
<<Five Evaluation Criteria>>	
Relevance	<u>Necessity</u> ☐ Is the project in line with the needs of the target region and society? ☐ Is the project in line with the needs of the target group? <u>Priority</u> ☐ Is the project consistent with the development policy of the partner country? ☐ Is the project consistent with Japan's foreign aid policy and JICA's plan for country-specific program implementation? <u>Suitability as a means</u> ☐ Is the project suitable as a strategy to produce an effect with respect to the development issues of the target field and sector of the receiving country? (Is the selection of the project approach and target region suitable? What synergy effects are possible in cooperation with other donors?) ☐ Is the selection of the target group appropriate? (Target, volume, gender distribution, etc.) ☐ Are there any ripple effects beyond the target group? ☐ Are the benefits of the effect and the burden of the costs fairly distributed? ☐ Does Japan have a technology advantage? (Does Japan have

	accumulated know-how on the target technology? Can Japan's experiences be put to use? etc.) Others Have there been any changes in the environment of the project (politics, economy, society, etc.) since the ex-ante evaluation?
Effectiveness (Prospects)	Achievement forecast for the project objective ☐ Looking at the input and output performance and at the activity, is the project objective likely achieved? ☐ Are there any factors that inhibit the achievement of the project objective?
Effectiveness (Prospects) -continued	Causal relationships ☐ Is the output sufficient to achieve the project objective? ☐ Are the important assumptions from the output to the project objective correct also at the present point of time? Is it likely that the important assumptions will occur?
Efficiency	Achievement level of output ☐ Is the output achievement level adequate? (compare performance with targets) ☐ Are there any factors that inhibited the achievement of the output? Causal relationships ☐ Were the activities sufficient to produce the output? ☐ Was the input sufficient to produce the output? ☐ Are the important assumptions from the activities to the output correct also at the present point of time? Is there any influence from important assumptions? Timing ☐ Was input of an adequate quantity and quality performed in the right time to conduct the activities as planned? Is it being implemented? Cost ☐ Does the output justify the cost to be invested compared to similar projects (comparison with overall or unit costs of similar projects of JICA and other donors or similar projects conducted by the applicable country.) (Were there any alternative means to achieve the same output using less amount of cost? Was it not possible to achieve higher efficiency using the same amount of cost?) ☐ Are there prospects that a project objective will be achieved that justifies the input compared to similar projects (comparison with overall or unit costs of similar projects of JICA and other donors or similar projects conducted by the applicable country.) (Are there no alternative means to achieve the same for less cost? Is it not possible to realize a higher achievement level at the same cost?)

Impact (Prospects) * If negative impacts can be seen, examine the factors based on the actual situation and revise the project.	Achievement forecast for the overall goal ☐ Looking at the input and output performance and at the activity status, are there prospects that the overall goal will be produced as an effect of the project? (Can the effect be verified in the ex-post evaluation?) ☐ Are there prospects that the achievement of the overall goal will have an impact on the development plan of the partner country? ☐ Are there factors that impede the achievement of the overall goal? Causal relationships ☐ Are the overall goal and the project objective consistent? ☐ Are the important assumptions from the project objective to the overall goal correct also at the present point of time? Is the possibility high that the important assumptions are true? Ripple effects ☐ Are any effects or influences beyond the overall goal assumed? Are measures taken to ease particularly negative influences? * Influence on the establishment of policies and on the preparation of laws, systems, standards, and the like * Influence on social and cultural aspects such as gender, human rights, rich and poor * Influence on environmental protection * Influence from technological changes * Economical influence on the target society, project parties, beneficiaries, etc. ☐ Are there different positive and negative influences due to differences between genders, ethnic groups, or social layers? Are there any other negative impacts? What measures are there to eliminate these?
Sustainability (Prospects) * Because sustainability may differ between projects, it is important to understand before conducting the evaluation.	Policies and systems ☐ Will policy aid continue also after the cooperation is finished? ☐ Are the relevant regulations and legal systems prepared? Are there plans for their preparation? ☐ For projects targeting pilot sites, will efforts to aid their spread afterwards be taken for certain? Organizational and financial aspects ☐ Is there sufficient organizational capacity to implement activities to produce effects also after the cooperation has ended? (Assignment of human resources, decision-making process, etc.) ☐ Is a sense of ownership towards the project at the implementing agencies sufficiently secured? ☐ Is the budget secured (including operating expenses)? Are sufficient budget measures taken at the side of the other country? ☐ How high is the probability that the budget increases in the future through the implementation of the project? Are the measures to secure budgets sufficient?

	Technology ☐ Are the methods of technology transfer used in the project being accepted? (Technology level, social and conventional factors, etc.) ☐ Is equipment appropriately maintained and managed? ☐ Does the project contain a mechanism for its dissemination? ☐ How high is the probability that the implementing agency can maintain the mechanism for its disemmination? ☐ For projects targeting pilot sites, is the technology one that can be disseminated to other sites? Society, culture, and environment ☐ Is there any possibility that a sustained effect is inhibited through a lack of consideration for women, the poor and the socially vulnerable? ☐ Is there any possibility that a sustained effect is impeded through a lack of consideration for the environment? Others Are there any other factors that might inhibit sustainability?
Necessity of adjustments	(Considered based on the results of above evaluation) ☐ Is an achievement of the project objective possible in the current condition (changes in the target group or target society)? ☐ Is it necessary to adjust the input, activities and output? ☐ Are there any new important assumptions that influence the project? ☐ How have problems, issues, risks, etc., pointed out in the ex-ante evaluation changed? ☐ What issues must be remembered for the future?

(3) Mid-term Evaluation Design

This section explains the issues for creating an evaluation grid for the mid-term evaluation, and presents an example case. For a detailed description of evaluation design methods, please refer to Part II, Chapter 2.

i) Issues when considering evaluation questions

The involved parties determine the evaluation questions in consideration of what focus the evaluation should have in order to lead to an improvement of the project and useful recommendations and lessons learned. In light of the purpose of the mid-term evaluation, the evaluation questions are mostly centered on whether the project is implemented as planned, and how the project should be revised to avoid problems. By principle, the Five Evaluation Criteria cover everything, but the evaluation is conducted with a focus on the evaluation questions in particular. (Refer to Case 2.)

Case 2: Evaluation Questions in Mid-Term Evaluation

Project to Improve the Life of the Poor in Country B

(This is based on an actual ex-ante evaluation case, but for this document, some changes and additions were made.)

<Project Outline>

The project objective of the evaluated project is “the improvement of the capability to approach social problems (education, poverty, hygiene, etc.) through the power of activity groups of the target slum region’s residents." To achieve this objective, the project provides rehabilitation of street children, counseling for residents, vocational training, chances for education, and others.

<Evaluation Questions>

In this survey, the involved parties agreed in advance to conduct the evaluation with the focus on the following issues. The evaluation questions reflect the problem awareness of the involved parties, and their intention to improve the project through the mid-term evaluation is visible.

- What problems are there in the implementation process of the project (management organization, change in awareness, and improved skills of project staff, etc.)?
- After the cooperation has ended, can the project sustain itself without aid from outside? What issues need to be taken care of in the future for this?

Based on these evaluation questions, the evaluation was conducted with a focus on “efficiency” and “prospects of sustainability.” For “relevance,” information was utilized that could be grasped while examining the “prospects of sustainability” (relevance of the project approach, condition of political aid in country B). The other evaluation criteria (forecast of effectiveness and impact) were also covered to a minimum degree.

ii) Issues when considering criteria and methods for judgment

To make a judgment on the worth (i.e., evaluate) based on the collected data, a before/after comparison, a comparison of achievement level and targets, and an analysis of causal relationships are required. Analysis of causal relationships asks whether the effect is really produced by the implementation of the project. In a mid-term evaluation, the prospects for the effect are examined, but causal relationships still cannot be examined based on performance. This is why a comparison between the project's implementation site and another site is vital when judging mainly output and input (for the method, refer to 2-2-2).

iii) Issues when considering information sources and data collection methods

In evaluations after the start of a project, the person(s) in charge of the project and the local office should – based on the implementation of the project up to now – have a grasp on the material that is usable as an important information source as well as identifying important persons that could become key informants. The evaluation study team selects appropriate information sources based on information provided by the persons in charge.

For mid-term evaluations, the monitoring results should be utilized. In addition, interviews with parties involved in the project, focus group discussions, and questionnaire surveys, etc. are conducted as necessary. The results of the mid-term evaluation should directly lead to an improvement of the project in progress. For example, conducting participatory workshops to isolate problems and then considering measures among involved parties is one effective means to grasp and then utilize the perceptions of the involved parties. Data collection methods as well as their characteristics and issues to remember are described in Part II, Chapter 2 (2-2-1).

iv) Issues when creating an evaluation grid

The evaluation method is ultimately summarized in an evaluation grid. The evaluation grid is a tool for thinking about how the evaluation study should be conducted so that it is adequate. Consequently, there is a basic format for the grid, but columns may be added as necessary. The evaluation grid is used to outline in detail the data which the evaluation needs to obtain, and also it identifies the data collection method in order to visualize what is to be done in the study. In the process of the actual study, some data may not be available as expected, and there may be some data beyond the expected ones. If data cannot be obtained, evaluators need to re-work the evaluation grid and consider whether there are other feasible means of verification, any usable data obtained for other items, or any other usable data.

(4) Interpretation and Utilization of Mid-term Evaluation Study Data

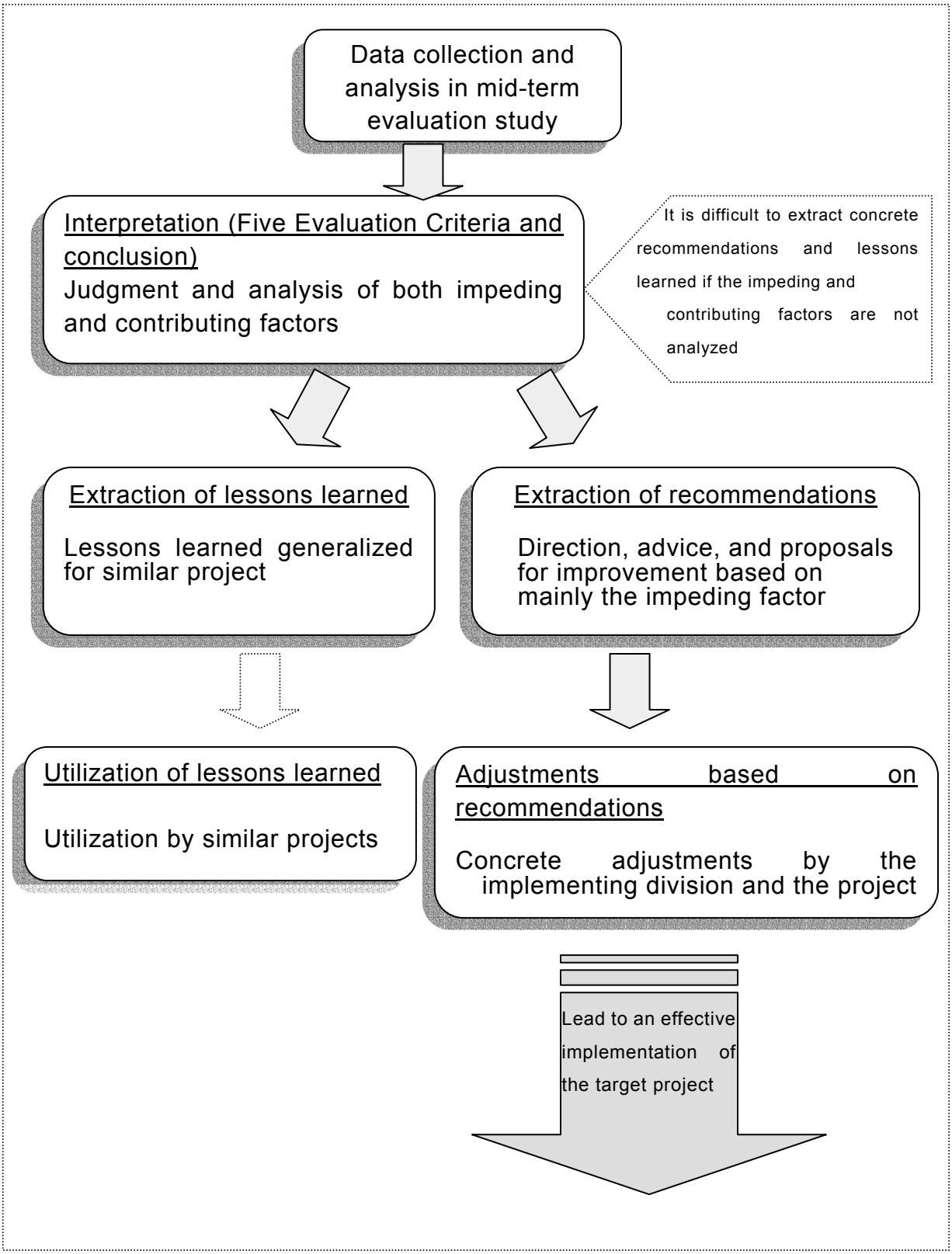
As explained in Part II Chapter 3, evaluating means interpreting the collected and analyzed data – just lining up data and summing up questionnaire results are not sufficient. Mid-term evaluation studies evaluate a project in the middle of the project; looking into whether the project is implemented as planned, what the causes are for things that go wrong, what is successful, and what kind of improvements should be implemented. The interpretation of the mid-term evaluation study is based on the results of the analysis of inhibiting and contributing factors. The results are also an important information source to guide evaluators to concrete and practical recommendations and lessons learned.

The interpretation consists of evaluations for each of the Five Evaluation Criteria and a conclusion that is a cross-analysis of these. If, in the evaluation of the Five Evaluation Criteria, impeding and contributing factors are not sufficiently analyzed, there will be no basis for the conclusion, and concrete recommendations and lessons learned cannot be presented. Mid-term evaluations especially are a very good chance to systematically decide “project revisions.” Whether the mid-term evaluation is effectively conducted also affects the success or failure of the project after that. To effectively utilize the mid-term evaluation results, sufficient time needs to be secured for thorough consultations with the involved parties on the impeding factors of the project and measures to solve them.

The next step, based on the results of the interpretation, is to draft recommendations and lessons learned and to create a report. “Recommendations” present concrete measures, proposals and advice on the improvement of the evaluated project. “Lessons learned” are identified from the experiences of the applicable project, and can be generalized or conceptualized to a certain degree. They also serve as a reference for other similar projects in progress, or to find and formulate projects in the future.

Since the main purpose of mid-term evaluation is to improve the project in progress, recommendations addressed to the respective project make up a relatively large portion. After the project and the implementing division receive the recommendations, they need to take immediate action to concretize them. Case 3 shows a project (Nursing education project in country C) where the mid-term evaluation results were concretely utilized, leading to an effect being produced at the end of the project.

Figure 3-2-3 Utilization of the Mid-term Evaluation Study: Project Adjustments



Case 3: Utilization of Mid-term Evaluation Results

"Nursing Education Reinforcement Project in Country C"

(This is based on an actual ex-ante evaluation case, but for this document, some changes and additions were made.)

- Project outline

Overall goal: The quality of nursing services in country C should improve.

Project objective: The quality of nursing education at the project target schools (6 schools) should improve.

Output: 1. Improvement of education for nursing teachers

2. Standardization of nursing education

3. Reinforcement of nursing education and cooperation with neighboring regions

4. Improvement of nursing education environment

- Mid-term evaluation conclusion

The improvement of nursing education by 2005 is a focus issue in the five-year healthcare plan of country C. This project is positioned as part of this plan. However, at the same time, the government is promoting the privatization of institutions for nursing education, which makes the securement and improvement of quality in nursing education even more important. Seen in light of this background, the relevance of the project is high. This project targets all nursing schools in the country and is highly appreciated as the shortest way to bring about quality improvements in nursing on a nationwide level. Therefore the relevance of the approach is also high.

With the implementation of the project, the establishment of systems related to nursing education – an introduction of certification exams for nursing, the introduction of regular meetings of the Committee to Reinforce Cooperation of Education and Clinical Practice, and others – is making progress, and the impact is clearly large.

On the other hand, it is necessary to reinforce monitoring and management of equipment in order to consider sustainability. In the current conditions, the management system is insufficient, and concerns remain regarding the sustainability of the effect after the end of the cooperation.

- Revision work conducted by the project in response to the mid-term evaluation results

The project developed the following new activities in addition to the activities until that point, aiming to reinforce sustainability, which had been pointed out as a problem

in the mid-term evaluation. The new output and activities were added to the logframe.

(Output and major activities added)

Output: 5 Promotion of activities for sustainability.

Activities: 5-1 Organize committees and study groups for each issue.

(Eight committees and four study groups to create the curriculum and instruction drafts, textbooks, video learning material, education, and cooperation with neighboring regions, etc., meet regularly and create guides and manuals.)

5-2 Hold seminars on how to use and manage equipment.

(Create user manuals for the equipment and hold seminars at regular intervals.)

5-3 Implement monitoring

(Conduct monitoring every half-year based on the logframe, and revise activities or repeat guidance as necessary.)

- Effect from the addition of new activities (excerpt from the terminal evaluation report)

According to the results of the terminal evaluation of the project, the addition of these activities was found to have the following effects.

- Every six months, a monitoring workshop was held based on the logframe. Through this workshop, communication proceeded smoothly as did as the management of the project – and the teamwork became strong. As a result, both experts and counterparts interacted with each other actively and tried to resolve problems.
- The introduction of a “committee" system made it possible to spread technology to the nursing field as a whole, and increased sustainability. The “committee” system is a method for developing vibrant activities through the participation of volunteer nursing teachers and clinical engineers that attended the seminars (about 80 persons regularly) in committees organized by theme. In interviews with the counterpart, many appreciated the fact that through this system, concrete output could be obtained while at the same time aiming for a dissemination of the technology, and revitalizing the communication in the entire nursing field.
- There are no particular problems in the maintenance and management of equipment. We judge that this is the result of creating equipment user manuals and holding seminars on how to use and manage the equipment (four times a year) in response to the recommendations of the mid-term evaluation.

3. Key Issues of Terminal Evaluation Studies

(1) Purpose and Evaluation Viewpoints of Terminal Evaluation Studies

Terminal evaluations are conducted at the end of cooperation; they examine on a comprehensive level whether the project objective was achieved. Consequently, relevance, efficiency, and effectiveness are examined based on the actual situation and performance. Impact and sustainability are also examined based on performance and the status of activities up to that point, and also with regards to future trends and feasibility (refer to Table 3-2-1). Note that although for impact and sustainability, it is the “prospects” that will be judged in the terminal evaluation, the evaluation still has to identify the concrete grounds for judgment in order to ensure that the judgment is not without grounds.

The evaluation results of terminal evaluations are fed back mainly to JICA’s operational departments and to the relevant government agencies and the implementing agency in the partner country. They are utilized to judge whether a termination of the cooperation is appropriate, and to decide on the follow-up. If the partner country continues the project, the results are also used as issues to remember or as lessons learned for similar projects.

When looking at the prospects for effectiveness and impact, evaluators need to focus on the causal relationships with the project as described in Part II Chapter 2 (2-2-2). Evaluations conducted after a certain period of time has passed since the start of the project have to look at whether the produced effects were triggered by the project. If possible, an evaluation should be introduced that makes a comparison with regions where the project has not been implemented, and evaluators need to compile data that can convincingly explain that the project output and activities have triggered the effect.

Table 3-2-6 shows a list of the main checkpoints for terminal evaluations.

Table 3-2-6 Major Checkpoints in Terminal Evaluation Studies (items shown with a gray background are examined based on the actual situation and performance)

Evaluation Item	Evaluation Checkpoint
Verification of performance	☐ Was input conducted as planned? (compare with planned values) ☐ Was output produced as planned? (compare with targets) ☐ Will the project objective be achieved? (compare with targets) ☐ Are there prospects that the overall goal will be achieved? (compare with targets)
Verification of implementation process	☐ Were activities implemented as planned? ☐ Were there no problems in the method for technology transfer? ☐ Were there no problems in the project management system (monitoring system, decision-making process, function of JICA headquarters and local office,* communication mechanisms within the project, etc.)? ☐ Does the project have a high recognition in the implementing agency and counterpart? ☐ Was a suitable counterpart assigned? ☐ Is the degree of participation of the target group and related organizations in the project high? Is the recognition of the project high? ☐ What factors influenced the problems occurring in the project implementation process and the produced effect? * A question to verify the adequacy of the management capability of the implementing division at JICA and the local office. For example, rapid response and advice to adjustments from monitoring during implementation, sufficient communication with the project site, cooperation with related agencies in Japan, etc.
<<Five Evaluation Criteria>>	
Relevance	<u>Necessity</u> ☐ Was the project in line with the needs of the target region and society? ☐ Was the project in line with the needs of the target group? <u>Priority</u> ☐ Is the project consistent with the development policy of the partner country? ☐ Is the project consistent with Japan's foreign aid policy and JICA's plan for country-specific program implementation? <u>Suitability as a means</u> ☐ Was the project adequate as a strategy to produce an effect with respect to the development issues of the target field and sector of the

	receiving country? (Were project approach and target region adequately selected? What synergy effects were achieved through cooperation with other donors?) ☐ Was the selection of the target group appropriate? (Target, volume, gender distribution, etc.)
	☐ Were there any ripple effects beyond the target group? ☐ Were the benefits of the effect and the burden of the costs fairly distributed? ☐ Did Japan have an advantage in technology? (Does Japan have accumulated know-how on the target technology? Can Japan share their experience? etc.) <u>Others</u> ☐ Were there any changes in the environment of the project (politics, economy, society, etc.) since the mid-term evaluation?
Effectiveness	<u>Achievement of project objective</u> ☐ Is the project objective achieved? (performance examination results) <u>Causal relationships</u> ☐ Was the output sufficient to achieve the project objective? Was the logic “if this output is produced, we will be able to achieve the project objective” reasonable? ☐ Are the important assumptions from the output to the project objective correct also at the present point of time? Was there any influence from important assumptions? ☐ What are the inhibiting and promoting factors for the achievement of the project objective?
Efficiency	<u>Production of output</u> ☐ Is the output production adequate? (performance examination results) <u>Causal relationships</u> ☐ Were the activities sufficient to produce the output? ☐ Are the important assumptions from the activities to the output correct also at the present point of time? Was there any influence from important assumptions? <u>Timing</u> ☐ Was input of an adequate quantity and quality performed at the right time to conduct the activities? ☐ Were activities implemented at the right time? <u>Cost</u> ☐ Does the output justify the invested cost compared to similar

	projects (comparison of total or unit cost with similar project conducted by JICA or other donors in the country?) (Were there no alternative means to achieve the same output with less cost? Was it not possible to achieve more with same amount of cost?) ☐Does the achievement of the project objective justify the invested cost compared to similar projects (comparison of total or unit cost with similar project conducted by JICA or other donors in the country?) (Were there no alternative means to achieve the same for less cost? Was it not possible to achieve more with same amount of cost??)

Impact (Prospect))	<u>Prospects for the achievement of the overall goal</u> ☐ Looking at the input and output performance and at the activity status, are there prospects that the overall goal will be produced as an effect of the project? (Can the effect be verified in the ex-post evaluation.) ☐ Are there prospects that the achievement of the overall goal will have an impact on the development plan of the partner country? ☐ Are there factors that inhibited the achievement of the overall goal? <u>Causal relationships</u> ☐ Are the overall goals and the objective consistent? ☐Are the important assumptions from the project objective to the overall goal correct also at the present point of time? Is the possibility high that the important assumptions are true? <u>Ripple effects</u> ☐Were there any positive or negative impacts beside the overall goal? * Influence on the establishment of policies and on the preparation of laws, systems, and standards * Influence on social and cultural aspects such as gender, human rights, and poverty * Influence on environmental protection * Influence from technological changes * Economical influence on the target society, project parties, and beneficiaries ☐ Are there different impacts depending on differences between genders, ethnic groups, or classes (particularly negative impacts)? ☐Are there any other negative influences?

(Major Checkpoints in Terminal Evaluation Studies – continued)

Evaluation Item	Evaluation Checkpoint
Sustainability (Prospects) * What is important for sustainability depends on the projects. The study should be conducted after understanding that..	<u>Policies and systems</u> ☐ Will policy aid continue also after the cooperation is finished? ☐ Are the relevant regulations and legal systems prepared? Are there plans for their preparation? ☐ For projects targeting pilot sites, will there be reliable efforts to aid their spread afterwards? <u>Organizational and financial aspects</u> ☐ Is there sufficient organizational capacity to implement activities to produce effects even after the cooperation has ended? (assignment of human resources, decision-making process, etc.) ☐ Is a sense of ownership towards the project at the implementing agencies sufficiently secured? ☐ Is the budget secured (including operating expenses)? Are sufficient budget measures taken at the side of the applicable country? ☐ How high is the probability that the budget increases in the future through the implementation of the project? Are the measures to secure budgets sufficient? <u>Technical aspect</u> ☐ Are the methods of technology transfer used in the project being accepted? (Level of technology, social and conventional factors, etc.) ☐ Is equipment appropriately maintained and managed? ☐ Does the project contain a mechanism for its dissemination? ☐ How high is the probability that the implementing agency can maintain the mechanism for its dissemination? ☐ For the pilot project, is the technology transferable to other sites? <u>Society, culture, and environment</u> ☐ Is there any possibility that a sustained effect is inhibited through a lack of consideration for women, the poor, and the socially vulnerable? ☐ Is there any possibility that a sustained effect is impeded through a lack of consideration for the environment? <u>Sustainability in general</u> ☐ Considering the above aspects as a whole, is the sustainability high or low?

(2) Evaluation Study Design

The following explains the issues for creating an evaluation grid for the terminal evaluation. For a detailed description of evaluation design methods, please refer to Part II, Chapter 2.

i) Issues when considering evaluation questions

The evaluation questions in terminal evaluations vary from “Was the project worth being implemented?” and other high-level questions to concrete questions such as “Was the method of technical cooperation introduced in the project effective?" or “Will the effect be sustainable?” The involved parties determine the evaluation questions in consideration of what focus the evaluation should have in order to lead to useful recommendations and lessons learned. In principle, the Five Evaluation Criteria cover everything, but the evaluation is conducted with a focus on the evaluation questions in particular. (Refer to Case 4)

ii) Issues when considering criteria and judgment

To judge a project’s worth (i.e., evaluate) based on the collected data, a before/after comparison, a comparison of achievement level and targets, and an analysis of causal relationships (is the effect really produced by the implementation of the project?) must be conducted. Particularly when designing a terminal evaluation to verify effectiveness, considerations are made as to what method should be used to verify the causal relationships within the project. (For more information on the method, refer to 2-2-2)

iii) Issues when considering information sources and data collection methods

In evaluations after the start of a project, the person(s) in charge of the project and the local office should -- based on the implementation of the project up to now -- have a grasp on important material that is usable as information sources and important persons that could become key informants.

The evaluation study team selects appropriate information sources based on information provided by the persons in charge. Surveys of the final beneficiaries (overall goal level) or residents should also be conducted as necessary. Conducting studies only with respect to the involved parties will result in looking only at limited sources of information from interested sources; therefore, it is not sufficient.

Data collection methods as well as their characteristics and issues to remember are described in Part II, Chapter 2 (2-2-1). Evaluators should study how to collect data efficiently within the limited time. First of all, a close look should be taken at whether already existing materials and data can be used - and these should be used as much as possible. Evaluators should also carefully consider how to collect the

data which does not exit yet and needs to be researched. The process of creating appropriate questions and questionnaire sheets is also extremely important. Many issues must be considered when creating questionnaires – drafting questions from the standpoint of the responding person to produce frank opinions, cross-checks on one perception through multiple questions, or the utilization of multiple-choice to grasp tendencies from quantified data.*

iv) Issues when creating an evaluation grid

The evaluation method considered from the aspects described above is finally summarized in the evaluation grid. The evaluation grid is a tool to think about how the evaluation study should be conducted appropriately. Consequently, there is a basic format for the grid, but columns may be added as necessary. The evaluation grid is used to state in detail the data needed for the evaluation and to identify the data collection method so as to visualize what is to be done in the study. In the process of the actual study, some data may not be available as expected, and there may be some data beyond what is expected. If data cannot be obtained, evaluators can return to the evaluation grid and consider whether there are other feasible means of verification, whether there are any usable data obtained for other items, or whether there are any other data that can be utilized.

Case 5 shows an example for an evaluation grid in a terminal evaluation. Of course, what is written into the grid depends on the project characteristics and on the quantity and quality of the information that can be obtained in advance by the evaluation study team, and evaluators should keep in mind that the evaluation questions and methods of the study shown in the case below are nothing more than just one of many examples. Depending on the information source or the culture and situation of the target society, interviews may be suitable in some cases, but in other cases, questionnaire surveys may be more valuable as data.

*In some of the evaluation studies in the past, rudimentary mistakes were made. For example, questionnaires were created that consisted of dozens of pages (discouraging the responding side to answer at all), or questions were drafted whose answer should have been grasped by reviewing existing literature and material. For actual evaluation studies, the skills of professional social researchers are required. For details on social survey methods, refer to the attached bibliography “Survey techniques and methods.”

Case 4: Evaluation Questions in the Terminal

(This report is based on an actual evaluation study, but its contents have been partially modified.)

<Family Planning/WID Project Terminal Evaluation Study>

The objective of this project is that "family planning should increasingly be practiced in the main target region and the follow-up regions." To achieve this, we conducted educational activities – activities to improve people's income and health care services, and others.

In this survey, we drafted the following main evaluation questions as a result of interviews with involved parties from Japan and discussions in a local evaluation workshop. With these evaluation questions in mind, we were able to identify what issues we should prioritize in our survey as we created the evaluation grid.

- Examination of the method of technical cooperation
  - i) The multi-sector integrated approach (an approach that looks not only at the aspect of health care for women, but integrates, for example, educational activities for the entire region and activities to generate income for women) for reproductive health (RH) introduced in this project is under focus as a pioneering effort, but does it really contribute to the increase in family planning ratio?
  - ii) Would this approach trigger changes in the behavior of women and the awareness in the environment?
  - iii) What are the main promoting and contributing factors for the above?
- Examination of each activity's degree of contribution
  - iv) Do the three activities (family planning/mother-and-child health care, educational activities, and income generation) contribute to the achievement of the project objective?
  - v) What are the main promoting and inhibiting factors for the above? What lessons were learned?
- Prospects for sustainability
  - vi) Will the regional project encourage the committee, the regional loan committee, and the regional support team to continue their activities even after the end of the project?
  - vii) Will the operation of revolving funds from the income generation activities continue to function even after the end of the project?
  - viii) Can the three implementing agencies (Senior population commission, the ministry of health, and NGOs) utilize the experiences and technology gained through this project in other projects?

<Terminal evaluation of the follow-up on the casting technology improvement plan>

The objective of this project is that “the casting center should be able to provide adequate technical services to the casting industry.” For this, we conducted casting technology transfer, training courses, and technical consultations, and provided equipment.

Since this study is for the evaluation of a follow-up project, the evaluation questions were drafted in light of the background of the follow-up cooperation. In other words, the reason for the follow-up cooperation was the fact that “through the actual project, the implementing agency was unable to build a system capable of providing adequate technical services to the private casting industry,” so that the evaluation study focused on an examination of whether this issue had been resolved.

- Evaluation question: “Can the system now provide adequate technical services to the private casting industry?”

Case 5: Evaluation Grid in the Terminal Evaluation

"Project to Improve the Technology of Small and Mid-sized Casting Companies in Country D"
(This is based on an actual evaluation study, but for this document, some changes and additions were made.)

●Project Outline

Overall goal: The technical skills of small and mid-sized casting companies in Country D should improve.

Project objective: Quality of training services and technical support services offered by the casting technology center for small and mid-sized companies should improve.

Output: 1. Reinforcement of the project's operation and management organization
2. Improvement of the technical skills of the counterpart
3. Installation, maintenance, and management of equipment for an expansion of training services
4. Training services reflecting the needs of small and mid-sized companies
5. Technical support services reflecting the needs of small and mid-sized companies

●Implementing agency
National casting center in country D

●Implementation period
May 1998 through April 2002

●Evaluation Questions

i) The monitoring results show that the project is proceeding smoothly. Is the effectiveness really high? If yes, what factors contribute to this?

ii) The independent securement of financial resources is regarded as an important factor for sustainability after the end of the project. How are the prospects for this? What other measures are required for sustainability?

If relevant, results from previous evaluations (Ex-ante Evaluation Table, project documents, Mid-term Evaluation Report, etc.) can be used in many cases.

- **Evaluation grid example**

[Relevance] * The material shown with a gray background has already been collected.

Five Evaluation Criteria	Evaluation Questions		Criteria and Method for Judgment	Required Data	Information Source	Data Collection
	Question	Sub-question				
Relevance	Is the effect that the project is aiming for in line with the national policy of country D?			Positioning and contents of the casting production plan in the quality and productivity plan	● Quality and productivity plan project ● Division in charge of the Ministry of industry	Review of material Interviews
	Was the selection of the target group adequate?	Are the needs for cooperation from the casting center high?		● Results of the baseline study ● Perceptions of center staff ● Perceptions of small and mid-sized companies	● Project documents ● Center staff ● Management of small and mid-sized companies	Review of material Interviews Interviews

		Is the size of the target group adequate?		● Ratio of the target group compared to the entire country D ● Opinion of involved parties	● Project Performance Table ● Project documents ● Division in charge of the ministry of industry ● Experts ● Counterpart (C/P) ● Management of small and mid-sized companies	Review of material Interviews Focus groups
	Is the project in line with Japan's foreign aid policy? Is the approach of the project adequate as a means?	Does the project address the focus issues for aid?		Focus fields for Japanese aid to country D	Country D aid policy	Review of material
		Does the project addressJICA's plan for a country-specific program implementation?		● Existence of programs in the casting field ● Positioning in the programs	JICA's plan for country-specific program implementation	Review of material
	Does Japan have a technological advantage compared to other countries?			● Experiences in aid in the casting field ● Experiences of Japan in the casting field	● JICA division in charge of the project ● Domestic support commission	Interviews

[Effectiveness] * The material shown with a gray background has already been collected.

Five Evaluation Criteria	Evaluation Questions		Criteria and Method for Judgment	Required Data	Information Source	Data Collection
	Question	Sub-question				
Others	Was the output achieved?			(as per Performance Table)	(as per Performance Table)	Review of material
Effectiveness	Does the center provide high quality of training?	Is the number of attendees from companies increasing?	Before/ after comparison	Development of the number of attendees	Center's list of attendees	Review of material
		Is the degree of satisfaction for the training high?	Average satisfaction for each course of at least 3.5 (5 levels)	Average degree of satisfaction	Attendees from the past	Questionnaire survey
	Does the center provide high quality of technical support services?	Is the degree of satisfaction of the companies high?	At least 80% of respondents are satisfied	● Satisfaction level ● Reason for dissatisfaction	● Complete survey of all target companies (*n* companies) ● * 10 companies among these	Questionnaire survey Interviews
		Is the quality of the products manufactured by the C/P high?	"Quality standards" of the center	● Quality data ● Expert opinions	● Quality control books of the center ● Experts	Review of material Interviews
	Is the output of the project contributing to the achievement of the project objective?	Is the skill improvement of C/Ps contributing to effectiveness?		● Ratio of C/P who received technology transfer ● Expert opinions	● Records of the center ● Experts	Review of material Interviews

		Is the equipment utilized?		Types of equipment used in training and technical services, as well as the frequency of use	● Training records ● Service records ● C/P ● Experts	Review of material Interviews
		Are the technologies acquired in trainings and through training and service?		Contents of technology transfer and curriculums		
		Are there any other contributing factors beside the project?		Opinion of involved parties	● C/P ● Experts ● Upper management of companies	Focus groups
				Implementation process information	Monitoring report	Review of material
	Are there factors that inhibited the achievement of the project objective?	Did the job separation rate at the C/P have any influence? (Important assumptions)		Job separation rate, reasons for job separation	* C/P (head of the center)	Interviews
		Are there any other influences?		Opinion of involved parties	● C/P ● Experts	Focus groups
				Implementation process information	Monitoring report	Review of material

[Efficiency] * The material shown with a gray background has already been collected.

Five Evaluation Criteria	Evaluation Questions: Question	Evaluation Questions: Sub-question	Criteria and Method for Judgment	Required Data	Information Source	Data Collection
Others Efficiency	Seen from the achieved output, were the quality, quantity, and timing of the output appropriate?	Were the number of experts dispatched, their fields of expertise and the timing of the dispatch appropriate?	Compare actual results with the plan	● Facts on the actual dispatch ● Work attitude of the experts ● Opinion of involved parties	● Performance Table ● Quarterly report ● C/P, experts	Review of material Questionnaire survey Interviews
		Were the types, quantity, and timing of the installation of provided equipment appropriate?		● Facts on equipment actually provided ● Equipment usage ● Opinion of involved parties	● Performance table ● Equipment, usage and management table ● C/P, experts	Review of Material Questionnaire survey Interviews
		Were the number of accepted trainees, the fields, the training contents, training period, and the timing of the trainee acceptance appropriate?		● Facts on the actual acceptance of trainees ● Opinion of involved parties	● Table on the actual acceptance of trainees ● Reports from agencies that accepted trainees ● C/P, experts	Review of material Questionnaire survey Interviews
		Were the head count, placement, and skills of the C/P appropriate?		● Placement of C/P ● Opinion of involved parties	● Table on actual placement of C/P ● C/P, experts	Review of material Questionnaire survey Interviews

		Are there any problems in quality, size, and convenience of buildings and facilities?		● Current condition of buildings and facilities ● Placement of equipment ● Opinion of involved parties	● Layout plan of equipment ● C/P ● Experts	Direct Observation Questionnaire Survey Interviews
		Was the project budget of an appropriate size?		● Actual cost covered by partner ● Annual budget of the center ● Opinion of involved parties	● Table on actual cost-sharing ● Budget table of the center ● * C/P (head of the center) ● Experts	Review of material Interviews
		Is the skill improvement of C/Ps contributing to the effectiveness?		● Ratio of C/P who received technology transfer ● Expert opinions	● Records of the center ● Experts	Review of material Interviews
	Were the costs adequate compared to similar projects?	Were the overall invested costs adequate?	Comparison with overall invested costs of similar projects	● Overall invested cost ● Output type and benefiting population of similar projects	● C/P (head of the center)	Interviews
		Is the unit cost for conducting one training session adequate?	Comparison with unit costs of similar projects	● Unit costs for training ● Unit costs for training at similar projects	● C/P ● Experts ● Evaluation reports of similar projects	Interviews
	Are there factors that inhibited efficiency?			● Opinion of involved parties	● C/P ● Experts	Focus groups

[Impact] * The material shown with a gray background has already been collected.

Five Evaluation Criteria	Evaluation Questions		Criteria and Method for Judgment	Required Data	Information Source	Data Collection
	Question	Sub-question				
Impact	Are there prospects that the overall goal will be achieved?	Do the skills of engineers at small and mid-sized companies improve?	Before/ after comparison	• Technology evaluation of representative companies in 15 states of the country	• 30 representative companies in 15 states	Questionnaire survey
		Is order increasing?		• Development of business performance of representative companies in 15 states of the country	• Material on business performance in 30 representative companies	Review of material
	Are there any other ripple effects?	Changes in the export volume of small and mid-sized casting companies		Development of the export volume	Export statistics	Review of material
		Change in the average productivity of small and mid-sized casting companies		Development of average productivity	Casting industry statistics	Review of material
		Impact on policies and systems related to casting companies		Opinion of involved parties	• Ministry of Industry • Involved persons in companies • C/P • Experts	Interviews
Others						

		Are there any other (positive or negative) influences?		Casting industry papers Opinion of involved parties	• Casting Journal • Ministry of Industry • Involved persons in companies • C/P • Experts	Review of material Interviews
	Does the project contribute highly to the impact produced?	Is there a demarcation line with respect to other related training agencies, and are there synergy effects?		• Role of related training agencies • Opinion of involved parties	• Related training agencies • Ministry of Industry • Companies • C/P • Experts	Interviews
		How is the effect of the training evaluated by persons who completed it?		• Current work • Self-evaluation by persons who completed the training regarding the change in their technical skills level	• 100 persons who completed the training	Questionnaire survey
		Is there a difference in the work performance of persons working at the same company who were trained and persons who were not?	Comparison with workers of the same company who were not trained	• Opinion of involved parties	• Involved persons in companies	Interviews

[Sustainability] * The material shown with a gray background has already been collected.

Five Evaluation Criteria	Evaluation Questions		Criteria and Method for Judgment	Required Data	Information Source	Data Collection
	Question	Sub-question				
Others	Is the positioning of the center in the casting industry clear?			● Continuity of support by related agencies ● Collaboration with related agencies ● Role of the center	● Ministry of Industry ● Industry organizations	Interviews
Sustainability	Does the organization have the potential to continue the business?	Does the organization have operation and management potential?		● Functions of each division ● Staff placement and stability ● Establishment of monitoring system ● Opinion of involved parties	● Organizational operational rules ● Staff placement table ● Monitoring records of the center ● C/P (head of the center), experts	Review of material Interviews
		Is the financial situation good?		● Financial situation of the center ● Opinion of involved parties	● Budget table, various financial tables ● C/P, experts	Review of material Interviews
		Are efforts for independent securement of financial resources proceeding smoothly?		● Plan for independent securement of financial resources ● Opinion of involved parties	● Plan for independent securement of financial resources ● C/P, experts	Review of material Interviews

	Is the transferred technology established?	Did the training capacity of the C/P improve?	Before/after comparison	● Results from evaluation by experts ● Results from self-evaluation by C/P	● Experts ● C/P	Interviews Self-evaluation (questionnaire survey)
		Will the transferred technology spread within the implementing agency?		● Existence of mutual training within the implementing agency ● Opinion of involved parties	● C/P ● Experts	Interviews
		Is equipment appropriately maintained and managed?		● Maintenance and management status ● Opinion of involved parties	● Maintenance and management reports ● C/P, experts	Review of material Interviews

When examining sustainability, evaluators should consider organization, systems, policy, technology, society/environment, and other viewpoints, but it is not necessary to give all viewpoints the same weight in a stereotypical way. This is because what is important for sustainability should vary depending on the project. Evaluators should take a close look at this and reflect it in the evaluation questions.

(3) Interpretation and Summary of Terminal Evaluation Data

As explained in Part II Chapter 3, evaluating means interpreting collected and analyzed data – just lining up data and summing up questionnaire results are not enough. Terminal evaluation studies are conducted at the end of a project, and they include looking into whether it was worth implementing the project, why some things did not go well, and what effects the project had. The interpretation is based on the results of the analysis of impeding and contributing factors. These results are also an important information source that guides evaluators to concrete and practical recommendations and lessons learned.

The interpretation consists of an “evaluation for each of the Five Evaluation Criteria” and a “conclusion” that is a cross-analysis of these. If, in the evaluation of the Five Evaluation Criteria, inhibiting and contributing factors are not sufficiently analyzed, there will be no basis for the conclusion, and the evaluation will not lead to concrete recommendations and lessons learned. In some evaluation reports, recommendations and lessons learned are made even though no concrete grounds are presented in the evaluation of the Five Criteria. In these cases, no results of a comprehensive investigation and analysis based on the five criteria are reflected, and the recommendations and lessons learned lack persuasive and convincing power.

The next step is to draft recommendations and lessons learned on the basis of the results of the interpretation and analysis, and to create a report. “Recommendations” present concrete measures, proposals, and advice on the improvement of the evaluated project. “Lessons learned” are identified from the experiences of the applicable project, and can be generalized or conceptualized to a certain degree. They also serve as a reference for other similar projects in progress, or to find and form projects in the future. Recommendations to eliminate inhibiting factors identified in the interpretation also need to be included. Impeding factors can be presented to similar projects as lessons learned so that these projects do not repeat the same mistakes. They can also serve as lessons learned to make similar projects more effective.

Evaluators have to make it clear who these recommendations and lessons are addressed to (addressee of the feedback). Concrete descriptions such as the implementing division, local office, implementing agency in the partner country, resident organizations, experts, counterpart, and so forth facilitate follow-up at a later time. It is also effective to give recommendations separately, according to their term of realization – mid- and long-term recommendations and short-term recommendations.

Table 3-2-7 gives a summary of issues to remember in the interpretation. Following the table are examples for the interpretation of the Five Evaluation Criteria

and the conclusion (Case 6 and Case 7). Note that the form the cases are presented in is one of many. The form shown does not necessarily have to be followed at all times.

Table 3-2-7 Issues to Remember when Interpreting Study Results

Issues to Remember		Example/Advice
[Five Evaluation Criteria]		
Compilation	● Conducting the evaluation (=response to questions) based on data separately collected and analyzed for each evaluation question facilitates the interpretation and an effective utilization of the evaluation grid.	(refer to the cases shown below)
	● In the evaluation for each of the Five Criteria, make sure to write a conclusion for each criterion.	Example: "The capability to conduct training is high, and training was conducted as planned. On the other hand, the evaluation from the trainees was not good." (It is not clear if this comment means effectiveness is high or not. It is necessary to mention reasons that can convince involved parties.)
Verification of causal relationships (Interpretation of logicality)	● When evaluating effectiveness and impact, make sure to verify the causal relationships within the project.	Example: "The number of mothers and pregnant women visiting health clinics increased. Therefore, the effectiveness of the project is high." ⏩Effectiveness cannot be judged without analyzing whether the "increase" was related to output produced by the project, and analyzing the background.
	● Pay attention to the fact that the project cannot be judged to be successful only by the appearance of ripple effects,	Example: "(In a mother-and-child health project) The traditional midwife-kit introduced in

	without mentioning the achievement of the overall goal or the project objective.	the project was also employed by another aid agency. For this and other reasons, the project has a significant meaning." ⏩First, verify whether the overall goal - the mortality rate of pregnant women and women during childbirth, etc. – was grasped. Other various positive impacts do not necessarily become grounds for a judgment on the success or failure of a project.
Presentation of grounds	● Clearly identify the grounds for the evaluation in the text of the interpretation. If necessary, give easy-to-understand explanations using, for example, tables, or charts to increase the credibility of the evaluation results (however, it is not necessary to include all charts and tables into the main text. Avoid expressing important matters such as the grounds for judgment in the evaluation, its results, etc., only in tables and charts or only in investigation results without explaining them in text).	Example: "The majority of the persons who completed the training highly evaluate the training course. Therefore, the effectiveness of the project is high." ⏩How many people are "the majority," and how high is their ratio? What are the grounds for the "high evaluation?" All this is unclear. The conclusion needs to be drawn with reference to the analysis results of the study.
Presentation of grounds	● Basically the evaluation should be based on quantitative data, but qualitative data are also useful. For example, it is possible to present results from an analysis of facts that could be read from interviews, or other highly convincing grounds (such as the acquisition of ISO9000).	Example: "The results of expert interviews show that the willingness of the counterpart towards the project and their commitment increased." ⏩Behavior, phenomena, etc., that indirectly show that the commitment increased need to be listed up front and presented as grounds.

	● Do not present the raw data from the study results as grounds, but present the results of their analysis. Present related data in attachments.	Example: “Equipment was procured as planned, and maintenance and management is also appropriate (see Attachment 1).” If the additional information is the maintenance and management report, it is unclear what should be read from this. The results of an analysis of the report (for example, the operation rate, defect rate, average time, and cost required for repair, etc.) should be presented as grounds within the main text.
	● Presenting grounds based on multiple data increases the credibility of the data and the objectiveness of the evaluation (except for data where the credibility of one information source can be guaranteed.)	Example: “According to the water supply commission, the construction of the well had an extremely strong effect, so this project’s effectiveness is high.” ⏩Data on the viewpoints of the users of the well (the residents) and on a reduction of water-borne infectious diseases, etc., as an effect of the construction of the well are missing.
Analysis of impeding and contributing factors	● Together with the grounds for the evaluation judgment, clearly state why the result was like this, and analyze inhibiting and contributing factors. If this is not clear, no concrete recommendations or lessons learned can be developed.	Example: “Up to now, 150 people attended the health seminars for residents, but the number of attendees is declining every year (table on the change over the years attached). Since the degree of satisfaction and understanding of the attendees towards health is high, the IEC activities were effective.” By investigating the

		reason why the number of attendees is declining, the perceptions of the residents (including the background why they attended) and the adequacy of the seminar methods can be investigated with more depth.
	● The expression "... is appropriate" is frequently used, but evaluators need to investigate what is appropriate to what degree and compared to what and why.	Example: "The dispatch of experts was conducted almost as planned and was appropriate." "Appropriateness" cannot be judged based on only the criterion "as planned". Also, evaluators need to analyze the contributing factors from the study results – what was appropriate in what way, and why was it good?

Relations among performance, implementation process and the Five Evaluation Criteria	● Evaluators can refer to statements in other evaluation criteria and mention them as grounds. Since the same project is looked at from multiple approaches, there are strong interrelations.	For example: ● Implementation process information such as on monitoring or the building of human relationships may be described as a factor that increased effectiveness. ● Information on important assumptions related to effectiveness, such as the firmness of establishment at the counterpart, may become a ground for the evaluation of sustainability.
[Conclusion]		
Presentation of grounds for the conclusion	● The grounds for the conclusion are the evaluation results of the Five Evaluation Criteria (or other evaluation criteria.) Look at the evaluation results in a cross-cutting way. Then briefly describe the issues that deserve to be remarked upon. ● The conclusion leads to concrete recommendations and lessons learned.	Facts and causes that are not at all mentioned in the evaluation results of the Five Evaluation Criteria and in the analysis of impeding and contributing factors cannot come up only in the conclusion or in the later recommendations and lessons learned.

Answers to evaluation questions	• If focus questions were drafted, answer these questions first in the conclusion.	

Case Example 6: Interpretation of a Terminal

"Project to Improve the Technology of Small and Mid-sized Casting Companies in Country D"

(This is based on an actual evaluation study, but for this document, some changes and additions were made.)

1. Five Evaluation Criteria

[Relevance]

For the following reasons, this project is judged to be of high relevance:

i) The relevance of the project's strategy is high.

As pointed out in the study sessions and expert interviews during the evaluation study, it is a fact that the development of small and mid-sized companies is limited if the only effort is technical cooperation. Without backup such as financing for the introduction of new technology, etc., this goal cannot be achieved. The relevance of the strategy to use technology transfer has to be examined also with these factors in mind. However, in country D, the ministry for investment promotion provides systematic support to the casting industry since it is related to the automobile industry, a representative industry of the country. Because of this, we judge that this is not a major inhibiting factor. (Figure 1: Development of financing and investments in the casting industry – omitted here.)

The individual fields of technical cooperation appropriately cover the industry structure in country D further, and the cooperation was appropriate as a means to develop small and mid-sized companies in the casting field. That Japan's technology in the casting field belongs to the top-class in the world is well known, and also in the field of development aid, Japan has experience in cooperation with country A and B. Also in this casting technology transfer, the technical support of the Japan Casting Center – backed up by experiences from the past – was put to use. (Table 1: showing examples of characteristic know-how for technical cooperation and others – omitted here.)

The target group – the national casting center – is a vocational training institution specializing in casting technology, the mission being to contribute to the development of the casting industry by raising human resources. The center is maintained by match contributions from companies, who have great expectations from the center as an industry organization. The ripple effect from the reinforcement of the center is thus anticipated to be large, making the center

the appropriate choice as the target group.

ii) The necessity of the project is high.

Since 1990, country D has been promoting import deregulation, the introduction of foreign currencies, and the privatization of state-run companies, and each company is having a difficult time striving to survive. The improvement in quality and productivity is an issue, especially to reinforce the competitive power of small and mid-sized companies,. The casting industry consists of approximately 1,000 companies and 51,000 people. Among these, 950 companies are categorized as small and mid-sized companies. Especially in the automobile field, casting products have a direct influence on the quality of the finished car, and for the automobile industry, which represents the biggest portion of country D's industry, an improvement in quality and productivity of the casting industry is extremely important and highly necessary.

At the national casting center – the target group – facilities and equipment were showing distinct signs of wear, and the skills of the staff were deterriorating. The center was in a condition where it was unable to sufficiently fulfill its role. The implementation of this project, which aimed to reinforce the functionality of the center, was in line with the needs.

iii) The priority of the project is high.

The quality and productivity plan of country D, a national policy regarding quality and productivity, mentions the promotion of quality improvement in manufacturing as a focus issue of its development plan integration program (1995-2004). Especially in terms of casting techniques, the product tends to be low quality, and production is decreasing due to lack of experienced technicians compared to developed countries. The overall goal of this project – "improvement of the skills of engineers at small and mid-sized casting companies" – will, in the long term, contribute to a "reinforcement of international competitiveness through quality and productivity improvements" and is thus in line with the national policy.

Japan's foreign aid policy has picked up the development of small and mid-sized companies in the industry field as one of the focus issues for the aid to country D, so that this project is in line with the Japanese aid policy. The project is also in line with the focus field in JICA's plan for country-specific program implementation – development of small and mid-sized companies and quality control.

[Effectiveness]

For the following reasons, the effectiveness of this project is judged to be high to a certain degree, but the revisions of the training contents are insufficient.

i) The achievement level of the project objective is judged to be high to a certain degree.

In the evaluations from attendees of the training courses, the average satisfaction level with respect to the curriculum and lecture exceeds 3.5 for each course (Table 2 – omitted here.) The technology monitoring sheet from experts also shows the high level of technical skills of the counterpart (refer to attachment 2).

The number of trainees dispatched from companies increased gradually through the third year after the start of the project, but declined in the fourth year and in the first half of the fifth year (Table 3 – omitted here). In the background, the number of attendees declined because the needs of the industry changed (refer to attachment 1: Results from interviews with experts and companies.) Experts pointed out that with the comparably small size of the casting industry, efforts corresponding to the needs of the companies – such as an introduction of new technologies and the planning of new training courses – were insufficient.

As for the provision of technical services, the satisfaction level in the follow-up survey implemented by the center of the companies was high, but experts pointed out that the evaluation criteria were not clear, with the result that we decided to conduct a questionnaire survey and interviews as an investigation team. In a questionnaire survey of 50 companies, 36 companies replied that they were “reasonably satisfied” with the services of the casting center. In the company interviews (10 companies), eight companies replied that they are utilizing the technology acquired at the center at their own manufacturing sites, and they are satisfied, all in all, with the work of the center.

ii) We assume that the output contributed to a high degree to the achievement of the project objective.

The technology transfer to the counterpart is proceeding smoothly. Their technical skills are top level in country D, and their abilities are utilized in the training and technical services. (Table 4: Rankings by technical skill, together with the expert evaluation sheet – omitted here.) As for the degree of the contribution of the technical skills improvement of the counterpart, the questionnaire survey of the counterpart showed that (a) an average of 80% of the transferred technology is used in the training courses, and (b) 16 of 22 respondents replied that they “used the transferred technology to provide

technical services."

The equipment procured in the project is sufficiently utilized both in the training and for technical services. (Table 5: Operation rate of equipment – omitted here.)

The problem of the turn-over rate at the counterpart, which had been assumed to be a risk on the way to achieving the project objective, stayed at only three persons leaving their jobs out of 25 (switching to jobs in other companies or starting to work in another country.) Considering that the turn-over rate at other government and private-sector institutions is at an average of 50%, we can judge that the turn-over rate here is not an impeding factor in particular.

iii) Other contributing factors

As a method to produce an effect in the technical cooperation, the head of the center, the counterparts, and experts commented that "establishing target products for each field and implementing technology transfer through the manufacturing of these products was effective since it helped to keep the balance of theory and practical skills." This example demonstrates how the establishment of a clear target can bring about success.

[Efficiency]

Seen from the achieved output, the input was conducted efficiently.

i) Experts were adequately dispatched.

The dispatch of experts was conducted as planned, so that the planned technology transfer could be completed (Table 6: Facts on the actual dispatch of experts – omitted here). In the questionnaire survey with the counterpart, 10 out of 22 respondents said that "seen from the achieved output, the dispatch of experts was adequate." Particularly the quality of the short-term experts was highly evaluated. This was because, for example, experts of an adequate quality with respect to the technology fees paid to the employers of the short-term experts were dispatched from their employers (private companies), and because some short-term experts were re-dispatched. When we also consider the limited time that the counterparts had for the technology transfer (since the majority of the counterparts had other jobs in parallel), we can assume that the concentrated technology transfer by short-term experts was an appropriate method.

As one of the other contributing factors for the achievement of the objective until the end of the project, many counterparts (13 out of 22) mentioned the role played by the long-term experts. The long-term experts consisted of experts with wide-ranging knowledge and experienced in casting as well as

coordinators who were well familiar with the social circumstances in country D. We assume that the factors that promoted the implementation process for technical cooperation were the establishment of communication that was based on an understanding of the society and also on technological aid.

ii) Procurement of equipment was adequately conducted.

Equipment was procured as planned and is operated adequately (Table 7: Equipment list, Table 5 (shown above) – omitted here). Some equipment required more time for the installation than planned and was not ready in time for the work of the short-term experts, so that for certain fields (field X), technology transfer became impossible. The effect on the project as a whole was, however, small, because of supplementing lectures conducted by the short-term experts when the equipment was ready after they returned home.

iii) The placement of counterparts was adequate for the most part, but many had other jobs in parallel.

Counterparts were placed as planned. Currently, only three out of 25 people left their job, so the stability is good. According to the initial plans, the counterparts would be dedicated full-time to their jobs in the project, but in reality, almost half of the counterparts (ten people) had other work to do in parallel. According to the interviews with counterparts that had other jobs in parallel, the average time that they allocated to project activities was about 41% of their total working time, and many pointed out that it was difficult to prepare training while doing other work. However, the fact that the project produced an effect even if not all counterparts were dedicated full-time (refer to the Efficiency page) lets us also judge that the efficiency of the implementation was high.

iv) The total invested cost of the project is lower than the cost of similar projects.

Compared with the total cost of similar projects (casting center projects in countries A and B), the cost of this project was approximately 20% lower. Of course, there are differences in the financial situation of the target countries, in the development stages, and in the activities themselves, but when we look at the breakdown of the cost in comparison, we can see that there is a remarkable difference in personnel expenses for the experts (Table 8: Comparison of the cost breakdown – omitted here). We think that in this project, the efficient combination of short-term experts lead to a cost reduction. The next factor that reduced the overall cost is that a large portion of the equipment was procured locally (Table 8, shown above).

A comparison of the unit cost for the training was impossible because (a) it was difficult to replace the input with a numerical economic value for each output, and (b) no training unit costs exist in similar projects that could be targets for a comparison of efficiency.

[Impact]

The following impact is recognizable from the implementation of the project, and the possibility that the overall goal will be achieved in three to five years is high.

i) We assume that the overall goal will very probably be achieved.

One indicator for the overall goal "improvement of the technical power of companies" is an increase in orders due to the improvement in technical capability. However, in the questionnaire survey conducted with companies at the terminal evaluation, we were unable to grasp such a change. In the self-evaluation of companies conducted by the evaluation study team, 70% of 50 companies responded that their technical capabilities had improved in some field (Table 9 – omitted here). Particularly many companies that received technical services report cases of success in product quality improvement through improving X and Y technology. These can be perceived as the emergence of an impact from the casting center (for types of success cases reported by the companies, see Table 10 – omitted here.)

The funding problem of each individual small and mid-sized company, which is one of the important assumptions, should be approached by the ministry of industry in cooperation with the industry policy ministry and the ministry for investment promotion, but because of the importance of casting for the automobile industry, an aid system is in place, and we think that this will not become such a serious problem.

Based on these facts, it is likely that the demand will increase after three to five years.

ii) In interviews with involved parties, the following were pointed out as positive ripple effects from the implementation of the project.

- The collaboration of related agencies (engineer association of country D, industry organizations) could be reinforced (impact on the industry.)
- For utilizing the improved capacity of training by project, and expanding surrounding area not only domestically, JICA's third-country training scheme is planned.
- Technology X, which was introduced in the project, includes considerations for the environment, and through visits to the foundry, the interest of country

D's casting industry in the environment increased (impact on environmental aspects.)

[Sustainability]

The prospects of the project's sustainability will be possible if financial resources and equipment are managed more properly.

i) Political support and system support promise to continue.

The casting center is a vocational training institute specializing in casting technology. It has been providing the casting industry in country D with human resources of more than 250 people every year since 1983 and is an important institution for small and mid-sized companies. As a technical center for casting, it is also providing technical services to a large number of casting companies. When we consider the important role played by small and mid-sized casting companies in country D's industry – which mainly consists of the automobile industry – the role of the casting center will be indispensable also in the future. The ministry of industry policy, the ministry for investment promotion, vocational training institutes all over the country, the Casting Development Center (an industry organization) and other related agencies have announced that they will continue to support the casting center.

ii) The casting center acquired organizational and operational capabilities, but there is concern with regards to the personnel planning and the securement of financial resources.

The perception of all experts is that "the operational and management capabilities have significantly improved compared with the time before the start of the project."

The financial situation is as shown in Table 12 (omitted here). Just as large sums were invested into equipment, procurement expenses for consumables and parts needed for operation, and maintenance expenses such as repair cost will be required each year. With the increase in activities, expenditures are also increasing (Table 13 – omitted here), and there is concern that financial resources will be insufficient in the near future. Currently, the ratio of independently procured financial resources compared to expenditures is about 50%, and it will become even more necessary to try to increase income from the main financial resources at present – training fees and technical service fees (for example, revise the contents of trainings and technical services, devise marketing strategies to secure customers, and so forth.)

iii) The prospects that the transferred technology will be spread and settle

are high.

The technology monitoring sheet from experts also shows that the counterparts themselves have high training capabilities (refer to attachment 2 – omitted here). Furthermore, the quality of the developed teaching material and manufactured target products is high. Factors leading to the expectation that the technology will settle are, for example, plans to conduct cross-trainings of different fields and the provision of self-development by the casting center (such as enrollment in the master's course.)

As for the maintenance and management of equipment, a preventative maintenance plan was drafted, and also while the project was in progress, we expect that maintenance and management will be implemented according to this plan.

2. Conclusion

This case draws the conclusion with high-level evaluation questions in mind.

Aiming to improve the casting technology of small and mid-sized companies in country D, this project was implemented in response to the national policy and the organizational needs of the implementing agency (national casting center) and also to the strong needs of country D's casting industry. With the improvement of the technical capabilities of the national casting center, high-quality training and technical services are now provided, and we expect that eventually the technical skills of the companies themselves will improve. The effectiveness of this project is high.

Contributing factors are, for example, the facts that activities were implemented almost as planned and that the implementing agency already possessed operational capability of a certain level. Another factor is that human resources were placed in an appropriate way. The fact that good relationships based on mutual trust between the experts and the counterparts were built up is also an important contributing factor. Monitoring was adequately conducted, and both sides pursued activities as partners, sharing the objective of this project. In our approach to technical cooperation, we introduced two to three target products for each field of technology transfer, and transferred the technology through the manufacturing of these target products. This helped maintain the balance of theory and practical skills and also communicated practical guidance to companies while, at the same time, establishing clear targets. This proved to be effective for a smooth technology transfer.

On the other hand, some concern remains with respect to sustainability. The ratio of independent income from the provision of technical services and so forth at the national casting center is currently at 50%, which makes it an organization with a comparably high self-financing rate. However, the value of the equipment provided in this project is as high as 354 million yen, and we

expect that procurement expenses for consumables and parts needed for operation as well as maintenance expenses such as repair costs will be required each year. In addition, there is concern about the reduction of income due to the decreasing of trainees as shown in the evaluation study conducted. As for the background of the decline, some point out that the response to the recent changes in the training needs of companies was not necessarily sufficient, and it will probably be necessary to react more actively to these needs, which include marketing. As for the maintenance and management of equipment – part of the equipment has up to now been repaired, adjusted, etc., by the short-term experts. In the future, a section for maintenance services will have to handle this independently.

From the results of the evaluation using the Five Evaluation Criteria, neither the plan (project strategy, causal relationships) nor the implementation process show any serious problems, and since we could confirm the prospect that the overall goal will be achieved, we think that the cooperation can be terminated without problem. In the future, this center needs to make even stronger efforts to secure financial resources while responding to the changing situation.

More concrete details on how to work to secure financial resources independently are included in the recommendations.

Case 7: Interpretation of a Terminal Evaluation (2)

The following examples are Five Evaluation Criteria interpretations from Evaluation Summaries of the past.

The case here was that priority was high, but that there were problems in some of the beneficiaries' needs (necessity). Technology that is not in line with the needs may become an impeding factor for effectiveness and impact.

[Relevance]

★ Comprehensive Agriculture Development Program in Country A ★

Project Purpose: Agricultural productivity at the project's sub-sites (the demonstration districts within irrigation program region K being cultivated by members of the irrigation association) increases through improvements in farming.

The Ministry of Agriculture formulated a "Mid-term Plan for Agricultural Development (1993-1998)," and has been promoting a "Reinforcement Program for the Production of Cereal Grains," focusing on rice. In the "Golden Harvest Program," a policy for the development and dissemination of technology which adapts to the specific characteristics of the region, the Ministry of Agriculture's 7th district is a region designated for the increased cultivation of rice, and the irrigation districts developed in the "K Irrigation Development Plan" and the "B Agriculture Development Plan (Phase 1)" are designated as the top priority districts for the production of rice. For the above reasons, the project objective and the overall goal are consistent with the agriculture development policy of country A, and the relevance is high.

On the other hand, small scale farmers or farmers with low income will not easily be able to apply the new technology developed in this project. There were inconsistencies with the needs of some of the project beneficiaries. Part of this is due to the fact that the basic investigations conducted in the preparation phase were insufficient.

★Metal Casting Technology Center Project in Country B★

Project Purpose: The Metal Casting Center acquires the capability to provide training and technical support for plastic molding technology.

In the "National Mid-term Development Plan of Country B" (1999-2004) and the "Mid-term Development Plan for Science and Technology" (same), Country B's government focused on industrial development through an improvement of technical skills, positioning both the molding industry and the manufacturing industry as indispensable elements. The project purpose and overall goal are consistent with the national policy and the needs of the beneficiaries, so the project has relevance.

The potential of the plastic molding industry at the beginning of the project was high, so it was judged that cooperation in plastic molding was adequate in the highly diverse molding industry. Today, however, the demand for press molding in country B is even larger. From the above, although the project's overall goal and project purpose were consistent with the development plans, the activities were limited to plastic molding, and the project did not have a direct influence on the molding industry as a whole which included various technologies (plastic molding, press molding, and so forth).

The case here was that priority was high, but that the plan was inappropriate in some issues as a mean of solving issues. In this case, an important evaluation viewpoint is the question of what kind of influence the low relevance of the plan may have on the effectiveness of the project. An examination of the implementation process is also important, such as whether monitoring was appropriately conducted responding to changes in the situation.

[Effectiveness]

Here, the causal relationships between the effect and the project were qualitatively evaluated through a comparison with non-pilot districts (application of quasi-experimental design.).

★Family Planning and Maternal and Child Health Project in Country C★
Project Purpose: Awareness of primary and reproductive health care increases through an improvement of primary and reproductive health care services in the pilot districts of the third region.

The following points were used as objective indicators. They show significant differences between the pilot districts and the non-pilot districts. We can see that in the pilot districts the awareness of the importance of health checks and continuous health management during pregnancy, childbirth, and after childbirth leads to a difference in behavior.

	Pilot District	Non-pilot Districts
Timing of initial prenatal health check (month of pregnancy)	1.8	2.3
Number of prenatal health checks	4.3	1.7
Baby and infant health checks (%)	59.0	12.0

The reason for this is the improved awareness of the beneficiaries, particularly pregnant women and mothers, which is a result of an improvement in skills of health and medical care personnel and of a revitalization of activities with citizen participation, which again resulted from the introduction of monitoring lists for baby and infant health checks (including the usage of maternity passbooks), the provision of occasions for doctors, nurses, midwives and other involved parties to discuss activities and problems, and the development of a wide variety of educational material.

Here, the causal relationship between the effect and the project is qualitatively evaluated in its relation to the output.

★Project for “Early Detection, Rapid Cure of Prostate Cancer’’★
Project Purpose: Prostate cancer examination system in the target region is established.

The project purpose is expected to be achieved until the end of the project. Through trainings, seminars and other expert activities, the counterparts acquired basic technology to implement a prostate cancer examination system. The counterpart implemented prostate cancer examinations for more than 12,000 people at the end of the project in city B. Among these, 813 tested positive, and from these, 273 went through the second cancer diagnosis, and 69 people were diagnosed to have prostate cancer, so that the project significantly contributed to the early discovery and diagnosis of cancer (data are as of May 2003). In addition, the contents of six research theses were acknowledged and are receiving research subsidies from country C’s department of science and technology, the science and technology agency of the B ministry, and B university. Because this project introduced the first prostate cancer examination system in the target region, we can judge that the level of achievement of the project purpose with regards to prostate cancer is a result of the project’s output.

Here, both positive and negative elements are explained before the evaluation study team makes the final judgment.

[Effectiveness]

★Project for Improving Agrichemical Monitoring System★
Project Purpose: Safe food with a proper level of residual agrichemicals is provided to the market.

For the realization of a "monitoring system for residual agrichemicals and drug formulation of agrichemicals" as mentioned in the project objective, the indicators mentioned are the following: (1) stored and organized agrichemical record data, (2) systematic implementation of investigations on residual agrichemicals, (3) the involved agencies' sufficient awareness of the importance of the continual implementation of these investigations, and (4) the recognition of the importance of an effective utilization of the results of the tests on residual agrichemicals. Investigations on residual agrichemicals are not covering the entire produce of country D, and we cannot really say that the Agricultural Crop Office and the Fertilizer and Agrichemical Agency sufficiently recognize the importance of utilizing the analysis data.

However, when looking at this comprehensively, the five outputs are almost achieved as initially planned, and this project transferred technology and know-how on important elements for the establishment of an agrichemical monitoring system, so that the counterpart is now able to independently implement residual agrichemical analyses, drug formulation analyses, tests on residual chemicals in agricultural produce, and so forth. Consequently, we judge that this project prepared a foundation for the achievement of the objective.

★Development Project for Small-scale Irrigated Agriculture★
Project Purpose: Farming system in irrigated agriculture regions under the jurisdiction of the Public Corporation for Irrigation Development

Effectiveness is high to a certain degree. Investigations and analyses of the situation in farming mainly in the model regions were conducted without problems. Although the achievement levels vary depending on individual techniques, each of them was improved. For example, suitable varieties for each cultivation field were selected. Farming support systems – such as farmers' organizations and a dissemination mechanism – were established and enforced to a certain degree in two model regions. The establishment of these model farming systems significantly contributed to the achievement of the project purpose.

However, we cannot say that the achievement of the objective is entirely a direct effect of the project, because there are some effects resulting from inputs other than this project such as irrigation facilities constructed by Grant Aid.

Here, the achievement of the project purpose was judged to be based on inputs other than the project.

[Efficiency]

Here, evaluators tried to compare with similar projects but did not find a comparable project.

★Project for Groundwater Development and Water Supply Training★
Project Purpose: Human Resources for groundwater development and water supply program are fostered, incorporating the viewpoints of ‘’Gender and Development.’’

The human and physical input of both Japan and country E into this project were efficiently utilized and contributed to outputs produced by activities. Input of equipment into this project was large, amounting to 375 million Yen. This was necessary as the initial investment for the center, and the equipment will potentially be put to use for a long time in the future. The efficiency of this input should be examined also from a long-term viewpoint.

Note that since no project has been conducted in Africa that provides the same kind of training in the same field of techniques as the center, it was difficult to compare the costs of this project with the costs of others.

★Maternal and Child Health Project★
Project Purpose: i) Mortality among pregnant women, babies, and infants in the pilot regions (districts A and B) is reduced; ii) epidemic diseases falling under the scope of EPI (Expanded Program of Immunization) are reduced, and polio in country T is eliminated. iii) Pediatric services at the MMC (medical center) are improved.

The quantity and timing of input from the Japanese side was just about adequate. However, in the maternal and child health field, the counterpart's evaluation regarding the length and the timing of dispatching experts was low. Also, the efficiency of the activity to establish referral systems for high-risk childbirths was low because the activity plans were insufficient, because management and guidance of the chief advisers did not reach the target for geological factors and because of a lack in coordination skills of the long-term experts. Also, in the medical center’s pediatric service, the specialties of the experts were partly different from the expectations of country T. This was also a cause for low efficiency.

As for the input on the side of country T, there were two impeding factors for efficiency: the fact that country T did not bear a sufficient cost load, and the fact that the assignment of an operational manager for the pediatric laboratory was too late.

The case here was that insufficient activity plans for output lead to low efficiency.

Here, evaluators grasped changes in the indicators for the overall goal. However, the causal relationship with the project stays unknown.

[Impact]

★Project for Preventing Infectious Diseases among Children★
Project Purpose: Prevention system for infectious diseases (mainly polio, but also tuberculosis) falling under the EPI (Expanded Program for Immunization) is enforced.

In the past five years, the mortality rates of infants, children under five, and pregnant women have decreased. We believe that these improvements are, to a high degree, attributed to the fact that the number of outbreaks of infectious diseases declined. This is achieved through the prevention system for EPI diseases reinforced in the project and also through the maternal and child health activities that were reinforced as part of the activities.

	1995	2000
Baby and infant mortality (per 1,000 childbirths)	104	82
Mortality of children under five (per 1,000 childbirths)	170	106
Mortality of pregnant and parturient women (per 100,000 childbirths)	656 (1993)	530

In addition, the following positive effects were produced: (1) the vaccine applications system from provinces developed in the project became a national guideline, (2) information, education, and communication (IEC) activities helped improve the general public's understanding of infectious diseases, (3) the Ministry of Healthcare did not really have the habit of keeping records, and insufficient documents were the cause of a low reception rate of vaccines from UNICEF, but a reinforcement of the organization and management system for basic documentation raised the level of clerical management skills in the Ministry, and so forth.

★Project for Improving Diagnostic Technology for Infectious Diseases of Livestock ★
Project Purpose: Techniques for basic and applied research on immunologic diagnostic methods for infectious diseases are obtained.

The divergence between the project purpose "reinforcement of immunologic and immuno-pathologic research" and the overall goal "development of stock farming" is large. Since the project activities are limited within the immunology research center, no clear organizational, economical, or social impact is visible at the current stage. To achieve the overall goal, issues will have to be solved such as drafting and implementing farming development policies, establishing an agency for the dissemination of diagnostic technology, and organizing veterinary services. However, from the technical aspect, there were ripple effects such as the introduction of the diagnostic techniques developed in the project to the veterinary department of the M University of Agriculture and the Veterinary Office of the Food and Farming Ministry, or a dissemination of the understanding of immunologic diagnostic techniques in regional veterinary clinics and other national research laboratories and related government agencies. The spread of the techniques acquired in the project will be possible if facilities such as a bio research complexes or regional veterinary centers are reinforced.

Here, the distance between the project objective and the overall goal was so great that an evaluation was impossible. Relevance in the planning phase needs to

The case here is that, from political, technological, and financial aspects, sustainability is high although there is still some room for improvement.

[Sustainability]

★Enhancement Program for the Occupational Safety and Health Center★
Project Purpose: Occupational Safety and Health Center's functions are enforced.

As for the political aspect, the newest Ninth National Development Plan includes the "efficient promotion of health and safety at the workplace," and lists nine activities related to occupational health and safety (educational activities, etc.) The staff working at the center have experiences in publicizing research papers, scientific analysis, and examination, and in organizing seminars related to the occupational health and safety field. The center has acquired both a large number of techniques and a large number of staff with a background of high education. From the above, we think that technological sustainability is high. As for the organizational aspect, an organizational restructuring is under way as of the time of the terminal evaluation, but also after this restructuring, the center says it will maintain the current organization, activities, and staff.

On the other hand, there is an important issue: securing medical experts in the occupational health and safety field from other organizations whose cooperation is indispensable, as well as securing machine operators and other assistant staff in the occupational health and safety field. The prospects for financial stability are currently good, since the center secured financial resources from the national budget, and securing budgets from the work injuries insurance foundation was systemized.

From the above, we believe that there are enough prospects that the center will be able to continually and effectively utilize the outcome of this project in the future, and that sustainability is high.

★Project for Development of Vegetable Production by Small Farms★
Project Purpose: Vegetable production technology for small-scale vegetable farmers is improved at the National Laboratory of Farming Ministry's Office and utilized by leading small-scale farmers in the target region.

Some of the leading farmers are now able to give guidance to other farmers, and we expect that the techniques will spread in the future. However, to continue research and to diffuse the techniques over a wider area, the laboratory needs to maintain the capacity for research on vegetables, and the Extension Office of the Farming Ministry needs to determine details on how to leverage private-sector initiative for the dissemination, and to reinforce management capacity.

Throughout the term of cooperation, we cannot deny that country P did not take on a sufficient load of the local costs. The laboratory plans to continue its activities with national budgets for the time being. Its own income is fully paid to the national treasury, and then returned to the laboratory. However, since there are many factors of uncertainty, such as the timing and ratio of the reimbursement, the current situation makes it difficult to see bright prospects for the maintenance and development of the project outcome, and for an organizational development of vegetable production and diffusion.

As for the technical aspect, the transferred techniques have been firmly acquired by the counterpart, but we cannot really say that they have been established at the organization. As researchers, the counterparts have established their individual research subjects, but they have not reached a level where they can implement the research methods all by themselves.

Here, it is analyzed that no sustainability can be expected, mainly with respect to organizational capacity and

4. Key Issues of Ex-post Evaluations

(1) Purpose and Issues of Ex-post Evaluations

Ex-post Evaluations verify whether the outcomes that the project aimed for are continuing after a certain period of time since the end of the cooperation. The results of these evaluations are fed back to similar JICA projects in the planning phase or to the formulation of programs on the macro level, for example JICA's Country Programs. They are reflected in the effective and efficient implementation of these projects.

Since the cooperation of JICA has already ended, the evaluation result of ex-post evaluations also includes recommendations for the partner country organization that is continuing the activities. Additionally, an important factor is that concrete recommendations and lessons learned for JICA's future efforts are extracted from the aspect of management of the organization as a whole.

In ex-post evaluations, the studies focus on two evaluation criteria: "impact" – which is expected to appear after a certain period of time after the end of the cooperation, and "sustainability" – where evaluators look at whether the effect is continually produced after the end of the cooperation. Up to the terminal evaluation, these criteria were always examined on the basis of its prospects, but in the ex-post evaluation, they are examined on the basis of performance. If necessary, evaluations are conducted also from the viewpoint of relevance (refer to Table 3-2-1).

When evaluating impact, it is important to check the causal relationships of the cooperation project, as with the case with effectiveness. Impact is particularly easily influenced by factors other than the project, because it is an indirect effect expected for the long term. If the project is positioned as part of a program, evaluators also need to look at impacts from synergy effects with other projects.

When examining sustainability, it is possible to conduct the analysis referring to the input, activities, and output continued from the cooperation project, particularly if the project is being continued with the same organization as during the cooperation. For example, in training and dissemination projects, evaluators can grasp sustainability by looking at the implementation status of trainings and at the development of teaching material. Further, if the work is continued in a new form that is different from the cooperation project and this shows an outcome, evaluators need to consider whether that new system was developed from the outcome of the cooperation. For example, in research and development projects, sustainability can be examined by grasping the process of using the developed techniques for the next development.

Table 3-2-8 Main Checkpoints of Ex-post Evaluations

Evaluation Item	Evaluation Checkpoint
Impact	<u>Achievement level of the overall goal</u> ☐ Is the overall goal achieved? (compare with targets) ☐ What influence does the achievement of the overall goal have on the development plan of the partner country? Does it contribute to the resolution of development issues? ☐ What are the impeding and contributing factors for the achievement of the overall goal? <u>Causal relationships</u> ☐ Is the overall goal an impact that was produced through the implementation of the project? ☐ Are the important assumptions from the project purpose to the overall goal correct? Is there no influence from important assumptions? <u>Ripple effects</u> ☐ Are there any positive or negative impacts beside the overall goal? * Influence on the development of policies, laws, systems, standards, and the like * Influence on social and cultural aspects such as gender, human rights, rich and poor * Influence on environmental protection * Influence from technical changes * Economical influence on the target society, concerned parties, beneficiaries ☐ Are there different impacts depending on differences between genders, ethnic groups, or social layers (particularly negative impacts)?
Sustainability (Prospects) * What is indispensable to secure sustainability depends on the project contents. The study should be implemented after looking at this.	☐ Is the implementing agency of the partner country continuing the project activities? Is the effect aimed for by the project (project purpose or overall goal) being continually produced by this? ☐ What are the impeding and contributing factors for sustainability? <u>Policies and systems</u> * Continuality of political support * Development of related regulations and legal systems * For projects targeting pilot sites, are there reliable efforts to support spreading the outcomes afterwards? <u>Organizational and financial aspects</u> ● Is there sufficient organizational capacity to implement activities to produce effects? (assignment of human resources, decision-making process, etc.) ● Is there a sense of ownership towards the project at the implementing agencies? ● Budget securement (including operating expenses)

	Techniques ● Establishment of transferred techniques ● Maintenance and management of equipment ● Is there a dissemination mechanism (including the spread to other regions for projects that were implemented on pilot sites)? Society, culture, environment ● Are there impeding factors due to a lack of consideration for women, the poor and the socially vulnerable? ● Are there impeding factors due to a lack of consideration for the environment?

* Ex-post evaluations examine performance and implementation processes and evaluate relevance as necessary. These evaluation viewpoints are handled in the same way as in terminal evaluations.

(2) Ex-post Evaluation Design

The design of ex-post evaluations also follows the same process as other evaluation studies. For detailed explanations on evaluation design, refer to Part II, Chapter 2. The characteristics for ex-post evaluation design are as follows.

i) Issues when considering evaluation questions

Main evaluation questions common to ex-post evaluations are “is the effect continuing without external support after the end of the cooperation?” and “was a long-term impact produced?” From the view of the Five Evaluation Criteria, “impact” and “sustainability” are the main criteria for this evaluation. The verification of efficiency and effectiveness was already completed in the terminal evaluation, and by principle, no verification of these is conducted in ex-post evaluations.

To draft more concrete evaluation questions, evaluators can utilize the reports of the mid-term and terminal evaluations. Because the sustainability prospects and impact forecasts are already examined, evaluators may obtain hints as to what is important to be investigated.

ii) Issues when considering criteria and methods for judgment

When examining impact in ex-post evaluations, evaluators need to compare the level of achievement with the targets and analyze causal relationships to determine whether the impact was really caused by the cooperation. In contrast to examinations of effectiveness, examinations of impact frequently cover broad areas of the target society, and in many cases, it is suitable to grasp the tendencies in, for example, sampling surveys (for methods of comparison, refer to 2-2-2), and for sampling surveys, refer to 2-2-3)

iii) Issues regarding information sources and data collection methods

Identifying information sources for the time after the cooperation is difficult compared to other evaluation studies because the persons involved in the

cooperation may be transferred or leave their jobs. Depending on the case, evaluators need to consult the implementing agency of the project to be evaluated in advance and identify suitable information sources in collaboration with the agency (for data collection methods, data types and characteristics/issues to remember, refer to 2-2-1)

iv) Issues regarding an evaluation grid

As with other evaluations, the evaluation method is summarized in an evaluation grid. Ex-post evaluations are conducted under the initiative of the overseas office, so it is possible to directly consult concerned parties of the partner country from the time of the evaluation design. At this time, the evaluation grid can also be utilized as a communication tool. The process of sharing the design with the partner agencies is important also to deepen the common understanding of the evaluation and to obtain the commitment of the partner side with respect to the evaluation study.

(3) Interpretation and Summary of Ex-post Evaluation Data

As explained in Part II Chapter 3, “evaluating” means interpreting collected and analyzed data – just lining up data and summing up questionnaire results are not enough. As in mid-term and terminal evaluations, the interpretation process of ex-post evaluations conducts an “evaluation for each of the Five Evaluation Criteria” and then draws a conclusion. From that, recommendations and lessons learned are extracted.

The main targets of the feedback of ex-post evaluations are organizations that are implementing the project (the project continuing after the cooperation), the respective implementing division at JICA, and the JICA overseas offices. Particularly for the latter, the results of ex-post evaluations become important information sources for drafting programs for the respective field in that country, or when drafting proposals for new projects. Even if an effect was visible during the cooperation (even if the results of the terminal evaluation were good), in some cases the effects are not sustained after the end of the cooperation, and are not contributing to the long-term objective that the project aimed for. In these cases, the worthiness of the project implementation itself is questioned, and these cases provide valuable lessons learned with respect to how project plans and strategies should be formulated.

The feedback to JICA is mainly utilized for the following considerations.

- Establishment of long-term strategies for the respective field
- Program cooperation in the respective field
- Selection of appropriate implementing agencies
- Necessity of incorporating a strategy to reinforce organizational capacity
- Effective project strategies

- Implementation of related projects in the respective field

Note that, by principle, ex-post evaluations are conducted under the initiative of overseas offices.

Frequently Asked Questions regarding JICA's Project Evaluation

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1. General questions regarding JICA's Project Evaluation	
1.1	The ex-ante evaluation focuses on the project planning, but I do not understand the meaning of evaluation that is conducted as part of this.
1.2	I do not understand the difference between the PCM method and JICA's evaluation method.
2. Evaluation questions	
2.1	I do not understand what the evaluation questions are.
2.2	I do not understand the relationship between the evaluation questions and the Five Evaluation Criteria.
3. Survey method when there is a problem with the logframe	
3.1	What should be done when the project purpose is simply a restatement of output?
3.2	What should be done when the overall goal diverges from the project purpose?
3.3	How are projects that have two purposes evaluated?
3.4	How are projects having vague plans or that have diverged from the initially prepared PDM evaluated?
4. Indicators	
4.1	What should be done when indicators are insufficient and do not match the project purpose?
4.2	How should the evaluation be conducted when it is deemed that target values are nonexistent or inappropriate?
4.3	How can target values be verified as being appropriate?
4.4	Do all indicators have to be seen as quantitative?
5. Evaluation method	
5.1	I am unclear on the meaning of the project's "logic."
5.2	How should evaluation results be presented when it appears that the project will not be able to fulfill its purpose?
5.3	The project is implementing activities that are not mentioned in the logframe and these activities are producing outputs. How are these outputs evaluated? Are they seen as indirect effects?
5.4	I do not understand what is the viewpoint of the implementation process and how it is utilized in the evaluation.
5.5	How are such items as level of enhanced functions, improved knowledge/skills, and empowerment evaluated?
5.6	When evaluating capacity improvement, etc., how are projects that were not well monitored up to the time of the evaluation evaluated?
5.7	How are projects that are implemented in collaboration with other donors or projects of the partner country's government that are partially assumed by JICA evaluated?

6. Five Evaluation Criteria	
6.1	Why are the Five Evaluation Criteria necessary?
6.2	Do all five of the criteria need to be examined even for small projects?
6.3	Is it sufficient to only discuss matching relevance with the development plan and aid policy?
6.4	When verifying effectiveness, how should the causal relationship with the outputs be considered?
6.5	How should impact be considered when determining whether it is a result of project implementation?
6.6	How should the efficiency of technical cooperation be considered?
7. Role of the Evaluation Grid	
7.1	Why is the Evaluation Grid necessary when the logframe exists?
7.2	I do not understand the connection between the Evaluation Grid and the logframe.
7.3	How do I keep the necessary data and the survey scope from taking on enormous proportions when preparing the Evaluation grid?
7.4	Even if I prepare an Evaluation Grid, I do not know how to use it.
7.5	Why is a PDME not used?
8. Partner country	
8.1	Is the partner country's participation in the evaluation necessary?
8.2	How should the evaluation proceed if the partner country has its own evaluation method?
9. Preparation of the Evaluation Report	
9.1	Is it necessary to prepare an English-language version of the report?
9.2	What points should be kept in mind when the persons in charge check the report?

1. Overall questions regarding JICA's Project Evaluations			
1.1	The ex-ante evaluation focuses on the project planning, but I do not understand the meaning of evaluation that is conducted as part of this.	The JICA ex-ante evaluation includes both "project planning" and "evaluation of plan content." The role of "evaluation" in the ex-ante evaluation is to verify the appropriateness of the project by looking at its plan via the Five Evaluation Criteria and to feed back any problems or issues that arise through this process into the planning. The objective is to formulate an appropriate project through this process.	Pg. 118
1.2	I do not understand the difference between the PCM method and JICA's evaluation method.	1.PCM method as a form of participatory evaluation - The PCM method is a method of project management that incorporates the "participation" concept. It is made up of 1) a method for formulating participatory plans through the implementation of participatory workshops, and 2) monitoring and	