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Japan International Cooperation Agency
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Leading the world with trust

2020 JICA

JICA Annual Evaluation Report

Japan International Cooperation Agency

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JICA Annual Evaluation Report 2020 — INDEX

* This report uses a universal design font.

Preface

Under our vision of "Leading the world with trust," JICA set out its missions as to achieve "human security" and "quality growth" in accordance with the Development Cooperation Charter of the Government of Japan. Today's global commitment to "leave no one behind," which lies at the heart of the Sustainable Development Goals (SDGs), encompasses the core essence of our missions.

The main objectives of JICA's project evaluation are; (1) to improve project operations by learning the lessons from the past project evaluations and (2) to ensure organizational accountability and transparency by publicizing evaluation results timely. We are enhancing both the quality and the strategy of our cooperation by leveraging the results of project evaluation.

This Annual Evaluation Report compiles an outline of JICA's evaluation mechanisms and the results of JICA's evaluation on its projects. In fiscal year 2020, we updated our project evaluation criteria in accordance with the revised evaluation criteria of the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) and other trends. We also further strove to deepen our learning and accountability by promoting thematic evaluations (comprehensive/cross-sectoral analyses) and carrying out impact evaluations and process analyses. These efforts are also highlighted in this report.

Since the beginning of 2020, JICA's operations have also been impacted by the COVID-19 pandemic. Despite such circumstances, JICA has worked to develop creative cooperation mechanisms by taking advantage of trust with various organizations and partners around the world fostered over many years. In line with this effort, evaluation surveys were conducted remotely by actively utilizing resources in our partner countries to ensure proper project evaluation.

We strongly hope this report will be widely shared and will help deepen your understanding of JICA's activities. We would also like to ask for your further support and encouragement for JICA.

March 2021

KITAOKA Shinichi, President
Japan International Cooperation Agency (JICA)

Annual Evaluation Report Structure Guide

JICA monitors and evaluates its projects before, during, and after implementation. It is extremely important to draw useful lessons and recommendations from the processes and results of project evaluations and turn them into actions to improve future projects. This report is intended to share and explain these important activities to a diverse public. The results of evaluations conducted in FY2020 and the lessons learned and recommendations drawn from the evaluation results are mainly described in Part I. Part II summarizes examples of various evaluation approaches and recent developments in JICA's project evaluation.

Part I Project Evaluation System and Ex-post Evaluation Results of JICA

Principal Objectives of JICA's Project Evaluation System

JICA's development projects are implemented in a continuous cycle of Plan, Do, Check, and Act (see Figure 1). JICA evaluates its projects at each stage of this project cycle, from ex-ante to ex-post, within a consistent framework (P.4-5). In particular, this report focuses on the results of ex-post evaluations, which are conducted in a consistent manner across all the Technical Cooperation, ODA Loan, and Grant Aid projects at the "Check" stage. Lessons and recommendations are derived from a quantitative and qualitative analysis of each project, shared within the organization, and fed back to those involved, whether they are translated into follow-up actions (at the "Action" stage) or reviewed when formulating and designing similar projects (at the "Plan" stage).

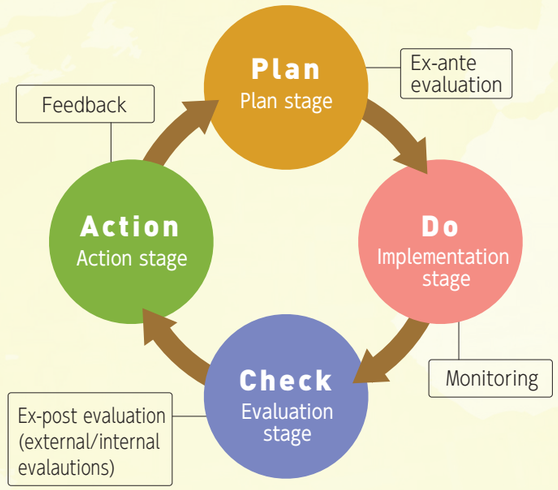


Figure JICA's project cycle

Ex-post Evaluation System

JICA conducts ex-post evaluations, either external evaluations by third-party evaluators or internal evaluations mainly by overseas office staffs (P.6). In principle, projects costing one billion yen or more are subject to external evaluations, which are conducted by third-party evaluators based on field survey results in order to ensure the transparency and objectivity of the evaluation results (See P.8-11 for an overview of evaluation results and P.16-29 for highlighted projects). Meanwhile, projects costing 200 million up to one billion yen are subject to internal evaluations undertaken by overseas office staff and the like (JICA Overseas Office, Branch or Regional Department staffs in the countries and regions where the projects were conducted) (See P.7 for the evaluation system, P.12-13 for an overview of evaluation results, and P.30-32 for highlighted projects).

Implications of COVID-19

The project evaluations scheduled for early 2020 onwards were affected by COVID-19 restrictions, such as travel bans, but conducted remotely or by other means. The evaluation approaches during the COVID-19 pandemic are described later in this report (P.7), and so are the challenges and solutions faced by external evaluators in that process (P.33).

Part II Enhancement of Project Effectiveness and Quality / Utilization and Learning of Evaluation

Comprehensive/ Cross-sectoral Analysis

JICA conducts a comprehensive or cross-sectoral analysis of particular themes, such as region-, issue-, sector-, and types of assistance-specific subjects, to identify trends and challenges that are common to that particular matter or compare and categorize projects to derive features or good practices. The purpose of this kind of analysis/evaluation is to extract lessons and recommendations that cannot be drawn from individual ex-post project evaluations. In FY2020, as outlined in this report, JICA is conducting four thematic evaluations: Transversal Analysis of Evaluation Results to Extract Practical *Knowledge Lessons* in the Rural Water Supply Sector (P.38); Examination of Evaluation Methods for Mobilization of Private Financing (P.38); Analysis of Evaluation Methods for Scholarship Programs (P.39); and Nutrition Improvement through a Multifaceted Approach (P.39). In addition, the results of a comprehensive analysis of ex-post evaluation results (P.58-61) and the evaluation efforts of the World Bank (P.47-48) as a leading international development organization are also described in this report.

Efforts to Improve the Evaluation Method

JICA is working on developing and improving evaluation methods, such as impact evaluation (P.44-46), qualitative comparative analysis (P.40-41), and process analysis (P.42-43), as well as conducting ex-post evaluations to assess changes made by individual projects. In addition, as presented in this report, JICA started ex-post evaluations of Private Sector Investment Finance projects (P.34-35) on a full scale in FY2020 and is considering using the Survey of Wellbeing via Instant and Frequent Tracking (SWIFT), which is a monitoring and evaluation tool developed by the World Bank, and a Theory of Change (ToC), which is a logical model widely accepted in the development community (P.36-37). Moreover, JICA revised its project evaluation criteria based on the revised evaluation criteria of the Development Assistance Committee of the Organization for Economic Cooperation and Development (OECD DAC), as outlined in this report (P.54-55).

Collaboration and Information Sharing with Other Organizations

JICA actively disseminates its evaluation results in order to improve the quality of projects and fulfill its accountability. In FY2020, JICA presented recent developments in its project evaluation system at the Japan Evaluation Society (P.50), the Japan Society for International Development (P.50), the OECD DAC's online meetings (P.51), and the American Evaluation Association. In addition, JICA shared the results of the Thematic Evaluation "Analysis on JICA's Cooperation for Environmental Management and Infectious Disease in China" (P.52) at the Asian Evaluation Week (AEW) and asked experts to analyze the results of this thematic evaluation (P.53). Moreover, JICA launched a Knowledge Co-Creation Program for Evaluation Capacity Development in Developing Countries in FY2020 (P.49).

Collaboration with the Advisory Committee on Evaluation

JICA set up an Advisory Committee on Evaluation to seek advice on project evaluation to improve the quality of evaluation, enhance feedback mechanisms, and fulfill its accountability for evaluation. The discussions of the Committee in FY2020 are summarized in this report (P.56-57).

JICA's Project Evaluation System and its Features

To improve its projects and ensure accountability to stakeholders, JICA evaluates each project as well as conducts a comprehensive or cross-sectoral thematic analysis. The features of JICA's project evaluation are highlighted as follows.

Feature 1 Monitoring and evaluation throughout the project's PDCA cycle

The PDCA cycle constitutes a four-stage project management cycle to enhance project activities on an ongoing basis, namely: Plan, Do, Check and Action. Lessons learned and recommendations obtained from monitoring and evaluation during each stage are leveraged while formulating and implementing projects going forward to further improve and boost their development effects.

Plan

■Pre-implementation stage (ex-ante evaluation): Plan

During the ex-ante evaluation (pre-implementation stage), JICA confirms the priority and necessity of the project, verifies the contents and expected effects of cooperation and defines indicators used to measure the effect before implementing the project, with the DAC evaluation criteria in mind (refer to P.5). The proper reflections on environmental and social consideration results and on lessons learned from past projects are also confirmed at this stage.

Utilization of results: Ex-ante evaluation results are reflected when assessing the project implementation and for project planning.

Table 1 Evaluation at Pre-Implementation Stage by Scheme

Scheme	Technical Cooperation	ODA Loans	Grant Aid
Timing	Prior to project implementation		
Preparation of ex-ante evaluation report*1	All projects costing 200 million yen or more		Projects costing 200 million yen or more implemented by JICA*2
Principals of evaluation	Operational Departments of JICA, etc. (Internal Evaluation)		
Evaluation perspective and method	Confirming existing needs and expected outcomes and verifying the project plans in light of the Five DAC Criteria		

*1: In principle, ex-ante evaluation report is prepared for all projects costing 200 million yen or more and not prepared for those costing less than 200 million yen.
*2: Evaluation of projects collaborated with international organizations is conducted by such international organizations.

Do

■Implementation stage (monitoring): Do

At the implementation stage, each project is monitored based on the evaluation plan and indicators set during the ex-ante evaluation. JICA confirms whether the project activity is progressing as planned and whether outcomes have been properly achieved and adjusts trajectory as required.

Utilization of results: The expected achievement of targets set during the planning stage, project progress and factors promoting or hindering progress are all analyzed via monitoring. The project plan is also reviewed as needed in line with any changes encountered during implementation.

Check

■Post-implementation stage (ex-post evaluation): Check

At the post-implementation stage, an ex-post evaluation is conducted once the project is complete*3. From the perspective of the DAC evaluation criteria, JICA focuses in particular on ascertaining whether the project activity was appropriate for achieving the development effects and which actual effects were achieved by the project. The Overseas Office evaluates projects costing 200 million yen or more and less than one billion yen in house (internal ex-post evaluation), while evaluation of projects costing one billion yen or more is outsourced to a third party (external ex-post evaluation).

Utilization of results: To further improve future projects, useful recommendations, lessons learned and good practices are all extracted.

Table 2 Number of Ex-ante Evaluation in FY2020*6

Technical Cooperation	(External evaluation)	8 projects
	(Internal evaluation)	105 projects
ODA Loans	(External evaluation)	31 projects
	(Internal evaluation)	0 project
Grant Aid	(External evaluation)	27 projects
	(Internal evaluation)	10 projects

*3: For projects costing less than 200 million yen, their outcomes are confirmed at the project completion.
*4: For projects costing less than one billion yen but those that are likely to gain valuable lessons, external ex-post evaluations are conducted.
*5: Please refer to P.6 for the rating system.
*6: Evaluation results were confirmed in FY2020 (as of February 2021).

Table 3 Evaluation at Post-Implementation Stage by Scheme*7

Scheme	Technical Cooperation	ODA Loans	Grant Aid
Timing	In principle, until 3 years after project completion		
Targets	All projects costing 200 million yen or more		Projects costing 200 million yen or more implemented by JICA
Principals of evaluation	Third party (External Evaluation), JICA Overseas Office, etc. (Internal evaluation)		
Evaluation perspective and method	Based on the Five DAC Criteria		

*7: Matters to be noted
- For projects which are implemented in several phases and those related to ODA Loans, relevant projects are integrally evaluated in principle.
- For projects of which outcome-based evaluations are not rational in terms of their implications and cost effectiveness, such projects are evaluated through output-based monitoring. This applies to Grant Aid for Human Resource Development Scholarship, for example.
- For projects which provide financial assistance or collaborate with international organizations under the scheme of ODA Loans and Grant Aid, JICA's ex-post evaluation is not conducted, in principle, from the perspective of development partnerships.

Action

■Feedback stage: Action

JICA promptly utilizes the lessons learned and recommendations obtained in the course from ex-ante to ex-post evaluations to improve ongoing projects and follow up on past projects as required and leveraging this information to formulate and implement similar projects going forward. This report introduces case studies of efficient/effective project implementation; utilizing lessons learned from similar past projects and those projects expected to utilize lessons for similar ongoing and future projects (refer to P.28-29).

Feature 2 Emphasizing the utilization of evaluation results

JICA focuses on the feedback stage (Action) in the PDCA cycle, involving reflection on lessons learned from experience and the evaluation results of past projects for similar ongoing and future projects. As well as improving each project, they are also reflected in JICA's basic cooperation strategies, such as cooperation programs. Moreover, JICA strives to reflect the evaluation results in its development policies, programs and the respective projects of recipient governments by feeding back the evaluation findings.

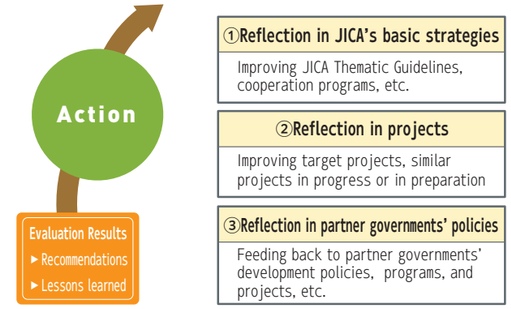


Figure Emphasizing the utilization of evaluation results

Feature 3 Coherent evaluation methodologies and criteria among three schemes of cooperation

JICA conducts project evaluations applying methodologies and criteria across schemes. While considering the various features among each scheme (Technical Cooperation, ODA Loan and Grant Aid), JICA aims to conduct evaluations and utilize evaluation results coherently by establishing a consistent framework. Specifically, the evaluation framework reflects: (1) An evaluation applying the evaluation criteria laid out by the Organisation for Economic Co-operation and Development/Development Assistance Committee (OECD/DAC) (Five DAC Evaluation Criteria*8) and internationally accepted ODA evaluation methodology; and (2) publication of evaluation results in uniform style by utilizing a rating system developed by JICA. The rating system and results are introduced on P.6-13.

Table 4 Evaluation Perspectives Using the Five DAC Criteria for Evaluating Development Assistance

Relevance	Examine the extent to which the cooperation objectives are suited to the priorities and policies of the target group, recipient and donor: Does the goal of the projects meet the needs of beneficiaries? Are the activities and outputs of the program consistent with the overall goal and the attainment of its objectives?
Effectiveness	Measure the extent to which the program or project attains its objectives.
Impact	Examine positive and negative changes as a result of the project. This includes direct and indirect effects and expected and unexpected effects.
Efficiency	Measure the outputs in relation to the inputs to determine whether the project uses resources effectively to achieve the desired results.
Sustainability	Examine whether the benefits of the project are likely to last after the completion of the project.

*8: In December 2019, the five DAC evaluation criteria were revised to six by adding Coherence. JICA's revision of the project evaluation criteria is in line with the new DAC criteria to clearly reflect the evaluation perspective of SDGs, commensurate with its organizational philosophy and to further generate collaboration and synergy with other organizations (refer to P.54-55).

Feature 4 Comprehensive and cross-sectoral evaluation and analysis

As well as evaluating each project, JICA sets specific themes when conducting thematic evaluations to determine trends and problems common to those projects and related to the theme. By evaluating and analyzing multiple project groups comprehensively and cross-sectorally, JICA extracts recommendations and lessons related to themes, which are then utilized to improve future projects. In FY2020, JICA conducts thematic evaluation of four ongoing projects (refer to P.38-39).*9

*9: For thematic evaluations conducted to date, please refer to: https://www.jica.go.jp/english/our_work/evaluation/tech_and_grant/program/thematic/index.html

Feature 5 Ensuring objectivity and transparency

To ensure projects are evaluated objectively and transparently, JICA outsources evaluation to third parties with external evaluations and tasks its Overseas Offices with internal evaluations. At the same time, ex-post evaluation results and other information are published on its website, also with transparency in mind.

To improve evaluations, JICA has established mechanisms allowing third-party perspectives to be reflected in the operations evaluation system. In this context, JICA receives advice on its evaluation policy, evaluation system and methodologies from the Advisory Committee on Evaluation, which comprises third-party experts. Please refer to P.56-57 for more details of the committee.

Results of the project evaluation are available on JICA's website Related link https://www.jica.go.jp/english/our_work/evaluation/index.html

Overview of the Ex-post Evaluation System

JICA conducts ex-post evaluations composed of external evaluations by third-party evaluators to ensure transparency and objectivity of project evaluations and internal evaluations primarily by JICA's overseas offices.

Ex-post evaluation system

JICA conducts evaluations by using a uniform evaluation methodology in all three schemes; Technical Cooperation, ODA Loan, and Grant Aid. In principle, projects costing one billion yen or more are subject to external evaluations by third-party evaluators based on the results of field surveys to ensure transparency and objectivity of the evaluation. Meanwhile, for those projects costing 200 million yen or more and under one billion yen are subject to internal evaluations which are conducted by overseas office staff and other JICA personnel of branch and regional departments in the Headquarters in charge of those projects. (Refer to P.12-13 for details of the internal evaluation)

Rating system

In the ex-post evaluation system, each project is assessed for its ① Relevance, ② Effectiveness/Impact, ③ Efficiency and ④ Sustainability in accordance with international standards (i.e. the Five OECD-DAC Evaluation Criteria*1). In the external evaluation process, projects are rated according to the following rating flowchart on a four-level scale of overall rating; A (highly satisfactory); B (satisfactory); C (partially satisfactory); and D (unsatisfactory).

Since the rating is used as means of indicating the effectiveness of the projects and applied to all projects in a uniform manner, it does not reflect other aspects such as difficulties in implementing projects.

Table 1. Overview of rating criteria and general perspectives

Rating criteria and general perspectives		Judgement Criteria		
		③ (High)	② (Fair)	① (Low)
Relevance	Validity of aid (relevance with development policy of recipient country, Japan's ODA policy, and JICA's aid strategy)	Fully relevant	Partially relevant	Serious problems with consistency
	Relevance with development needs (needs of beneficiary, project area, and community)			
	Appropriateness of project plans, approaches, etc. (Relevance of project logics)			
Effectiveness / Impact	Achievement of expected project outcomes in target year (including utilization of facilities and equipment)	Objectives largely achieved, and outcomes generated (80% or more of plan)	Some objectives are achieved, but some outcomes are not generated (between 50% and 80% of plan)	Objectives achieved are limited and outcomes are not generated (less than 50% of plan)
	Status of indirect positive and negative outcomes	Indirect outcomes generated as expected / no negative impacts	Indirect outcomes generated have some problem / some negative impacts	Indirect outcomes generated have problem / grave negative impacts
Efficiency	Comparison of planned and actual project inputs, project period and project cost, etc.	Efficient (100% or less than the plan)	Partially inefficient (between 100% and 150% of plan)	Inefficient (exceeding 150% of plan)
Sustainability	Policy/political involvement (in case of Technical Cooperation) Institutional sustainability (mechanisms, division of roles, etc.) Technical sustainability (trainings, manuals, technical levels) Financial sustainability (availability of budgets, etc.) Operation and maintenance sustainability	Sustainability is ensured	Some problems exist, but there are prospects of improvement	Insufficient

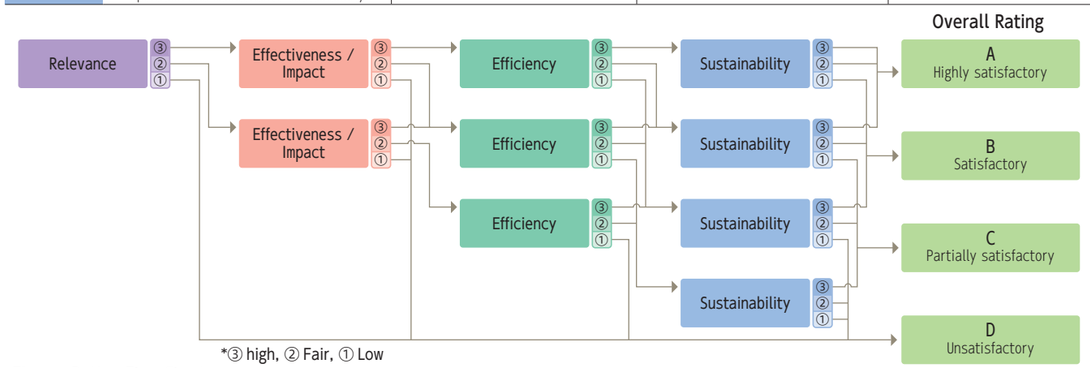


Figure Rating Flow Chart

*1: With the adoption of the Agenda 2030 and Sustainable Development Goals (SDGs) in 2015, DAC reviewed its evaluation criteria. In 2019, a new criterion (Coherence) was added and new six criterion (Relevance, Coherence, Effectiveness, Impact, Efficiency and Sustainability) were redefined. Based on the revision of DAC evaluation criteria and the need to respond to various issues in its project evaluations, JICA will incorporate the new six evaluation criteria into project evaluations in FY2021 while changing the sub-rating from three-level to four-level scale. (Refer to P.54-55)

JICA's internal evaluation

As internal evaluation is conducted primarily by JICA's overseas offices, the evaluation focuses on a "learning" perspective, such as drawing practical lessons taking into consideration of the project background to make them used for improving succeeding project implementation or formulating future projects.

Overseas offices allocate their staff by project to be evaluated and determine the evaluation result taking the process of defining evaluation framework, conducting field survey, completing the evaluation based on information and data collected, discussing with the implementing/executing agency of partner country and other activities. The number of staff and their knowledge and experience in the evaluation varies among overseas offices. To ensure that they can take smooth steps throughout the internal evaluation process, the Evaluation Department develops evaluation criteria and manuals and provides various supports for improving evaluation capacity of staff concerned through trainings and preparing documents used during the evaluation process. (Refer to P.12-13 for details)

Table 2. Implementation structure of internal evaluation

Overseas office (Evaluator)	・Consider, revise and decide evaluation framework ・Prepare questionnaires and conduct field surveys ・Compile the result of field surveys and judge the evaluation result ・Feed the evaluation result back to the implementing/executing agency of the partner country ・Confirm, revise and decide the evaluation result
Evaluation Department (Evaluation support)	・Decide evaluation criteria and develop manuals and formats ・Examine and improve the whole internal evaluation system ・Support for preparing various evaluation documents ・Monitor overall evaluation progress ・Provide evaluation trainings (lectures and practices)

Training course for graduate engineers on multi skilling ("The Project on Electrical Engineers Training for African Countries (EETA)" in Ghana)

("Supporting Community Initiatives for Primary Education Development in the Southern Provinces" and "Project for Supporting Community Initiative for Education Development (Phase 2)" in Laos)

Integrated support in early childhood ("The Project for Enhancing Integrated Service Delivery for Social Risk Prevention and Attention for Families and Communities" in Nicaragua)

Evaluation method in response to the spread of COVID-19

The impact of COVID-19 Pandemic since early 2020 has forced JICA to suspend overseas travel and ensure safety of experts, volunteers and other personnel dispatched overseas in ODA projects, seriously affecting the whole operations. It has also caused similar impacts on project evaluation activities. In case of ex-post evaluations conducted by external consultants, their overseas travel from Japan has become unfeasible as scheduled. Accordingly, we needed to reduce the frequency of field survey and alternatively conduct the survey remotely with cooperation from local consultants.

For some projects, we have also rearranged their evaluation period until travel restrictions become soften. (Refer to P.33 "Difficulty and Ingenuity: Conducting Evaluation in the Time of COVID-19 Pandemic" for a specific case)

Although such operational restrictions have hindered data collection and other evaluation activities and forced us to review/rearrange the implementation schedule, we implement ex-post evaluation continuously in collaboration with overseas offices and local consultants.

External Evaluation Results

Overall rating

The external evaluation results confirmed in FY2020 are as listed on P.10-11. Evaluations were conducted for 66 projects: 31 ODA Loan projects; 27 Grant Aid projects; and eight Technical Cooperation projects.

Most of the 65 projects*1 receiving overall ratings*1 were carried out in South-East Asia, Africa and South Asia, in sectors such as transportation, water resources, health, governance, environmental management and agricultural/rural development. The overall ratings for the 65 rated projects were: A for 25 projects (38%); B for 33 projects (51%); and C for seven projects (11%); and D for 0 project (0%) respectively. A and B grades were awarded to around 89% while the total of C and D comprised 11% of the entire project*2.

*1: For 65 out of 66 ex-post evaluation projects with results confirmed in FY2020. The exception was the Support Program to Respond to Climate Change (I) to (V) (Evaluation No. 19 on P.10-11), for which no overall rating was given.
*2: These results are within the normal range of fluctuation. The average proportion of overall ratings A and B for projects completed between FY2003 and FY2018 was about 80%, ranging from 68% (FY2014) to 91% (FY2015). The fluctuation of around 10% in the average ratio is attributable to the characteristics of projects (country, sector, scheme, etc.), which vary according to the fiscal year.

Evaluation results in detail

Each of the criteria evaluated in the 65 projects that were rated are detailed below:

Relevance: All projects rated were aligned with Japan's development policy and the partner country's policies and development needs.

Effectiveness/Impact: About 70% of projects sufficiently achieved the intended project effect, while about 30% of projects achieved a partially satisfactory outcome.

Efficiency: About 20% of projects were completed within their project period and cost as planned while over 10% of projects were rated as low. Factors behind this low rating included "delays in procurement procedures," "partial changes to design and plan," "land acquisition," "increased material and labor costs," and "delays in budgetary measures/procedures of the recipient government."

Sustainability: Some issues were confirmed in over 40% of projects. Factors behind this low rating included issues such as "the operation and maintenance system was not developed (defect caused by different systems introduced in those regions with or without an O&M contractor)," "lack of maintenance capacity (inability to conduct medium- and large-scale repair works and equipment not regularly monitored)" and "lack of budget (operation not functioning with insufficient business revenue and reliance on subsidies and lack of reserves for equipment renewal).

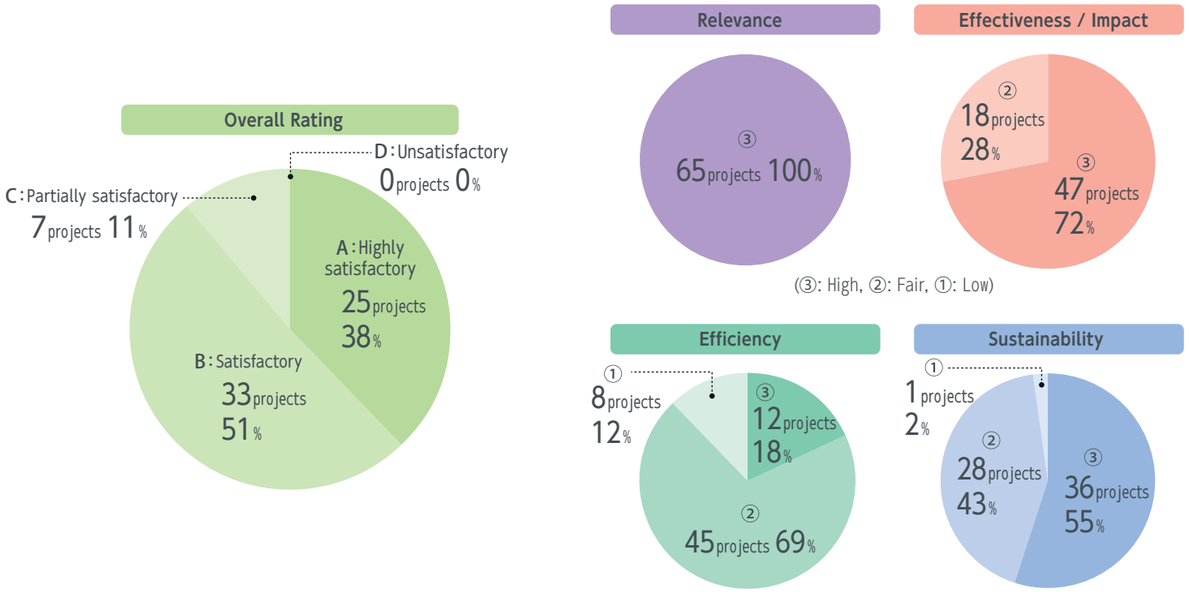


Figure Result of external ex-post evaluations

JICA also analyzed Performance and determined best practices for planning and supervising JICA projects as well as analyzing details of good practices which generated synergies. The main analytical results are shown as follows*3.

Table Good practices for JICA's Performance

Project No.	Country	Project	Overview of Performance
11	Philippines	The Project for the Improvement of Water Supply System in Metropolitan Cebu Water District	The technologies and insights of local governments were utilized and disseminated via intangible support.
46	Myanmar	The Project for Urgent Improvement of Water Supply System in Yangon City	Leveraging a basic survey conducted by the Ministry of Economy Trade and Industry in Japan immediately after the Myanmar's democratization, JICA promptly implemented a grant aid project, followed by multiple ongoing assistance, including technical cooperation and ODA Loan projects.
82	Nigeria	Polio Eradication Project	Aligned with an international collaboration initiative to eradicate polio, the project contributed to achieve polio-free status.
88	Burkina Faso	The Project for Rural Water Supply in the Regions of Central Plateau and South Central Phase 2	From the perspective of SDGs (poverty reduction), the project assisted women become financially independent.
91	Mauritania	The Project for the Expansion of Fishing Port in Nouadhibou	Utilizing the port developed by the JICA project, a Japanese company initiated octopus imports.

Based on the facts having emerged from each ex-post evaluation, the following lessons were extracted and to be utilized as benchmarks for new project formulations going forward:

- Proper setting of indicators (including sub-projects) and monitoring implementation.
- Design of the system considering the capability and structure of the implementation agency.
- Building consensus with organizations related to the monitoring of PPP projects in projects within which synergy with PPT projects is expected.
- Coordination to collaborate with other means of transport in transportation projects.
- Consideration to create synergy with relevant projects.
- Including an existing terminal when considering the utilization efficiency of newly built container terminals.
- Choosing core community members with sustainability of a water supply project in mind.
- Consideration as to how to secure spare parts and expendables for the long term.
- Role of ODA projects to underpin private investment.
- Allocation of a coordinator liaising with multiple related organizations to formulate a platform.
- Adding land acquisition requirement as part of prioritizing conditions for sewerage improvement.

Improved berth and an octopus fisherman
(the Project for the Expansion of Fishing Port in Nouadhibou in Mauritania)

A panoramic view of the Power Plant (Nghi Son Thermal Power Plant Construction Project in Viet Nam)

*3: Refer to the evaluation report of each project for details. Their links are embedded in the project name shown in the List of Ratings for External Ex-post Evaluations on P.10-11.

External ex-post evaluation policy going forward

Given the COVID-19 pandemic, the external ex-post evaluations that got underway in FY2020 were based on surveys carried out remotely for countries to which travel from Japan was difficult. Since FY2019, JICA has extended the application of simplified external ex-post evaluations introduced on a pilot basis to promote evaluations from various perspectives, such as methodological improvement and thematic evaluation (conducted from FY2019: four projects → conducted from FY2020: 12 projects). JICA also considers the applicability of utilizing satellite data, which was introduced on a pilot basis in FY2019, as a supplemental reference for confirming effectiveness and impact and for those projects implemented in conflict-affected and other restricted countries and regions (four of which are being considered). Moreover, as a thematic evaluation was conducted in FY2017, JICA has fully conducted ex-post evaluations related to overseas loans and considering evaluation methods.

At JICA, we strive to help achieve effective and efficient project outcomes by leveraging lessons learned from ex-post evaluations to formulate and supervise projects as well as attempting to introduce new evaluation methods to streamline verification and ensure effective project outcomes.

List of Ratings for External Evaluations*1

In principle, external ex-post evaluation covers those projects costing one billion yen or more.
Click on a project name to jump to see its ex-post evaluation report.

Country	*2 Evaluation No.	*3 Project No.	*4 Scheme	Project name	Relevance	*5 Effectiveness	Efficiency	Sustainability	Overall rating
Indonesia	1	1	G	The Project for Enhancement of Vessel Traffic System in Malacca and Singapore Straits	③	③	②	②	B
		2		The Project for Enhancement of Vessel Traffic System in Malacca and Singapore Straits (Phase 2)					
	2	3	G	The Project for Construction of Bridges in the Province of Nusa Tenggara Barat	③	③	②	②	B
		4		The Project for Construction of Bridges in the Province of Nusa Tenggara Barat, Phase Ⅱ					
		5		The Project for Construction of Bridges in the Province of Nusa Tenggara Barat, Phase Ⅲ					
	3	6	L	Aceh Reconstruction Project	③	③	②	②	B
	4	7	L	Tanjung Priok Access Road Construction Project (I)	③	②	②	③	B
		8		Tanjung Priok Access Road Construction Project (II)					
	5	9	L	National Geo-Spatial Data Infrastructure Development Project	③	②	②	③	B
	6	10	L	North-West Sumatra Inter-connector Transmission Line Construction Project	③	③	①	③	B
Philippines	7	11	G	Project for Improvement of Water Supply System in Metro Cebu Water District	③	②	②	②	C
	8	12	L	Environmental Development Project	③	②	②	③	B
	9	13	L	Agricultural Credit Support Project	③	②	②	③	B
	10	14	L	Agrarian Reform Infrastructure Support Project (Phase III)	③	③	①	③	B
Cambodia	11	15	G	The Project for Expansion of National Maternal and Child Health Center	③	③	②	③	A
	12	16	G	The Project for Expansion of Water Supply Systems in Kampong Cham and Battambang	③	③	③	③	A
Laos	13	17	G	The Project for Improving Secondary School Environment in the Southern Provinces	③	③	②	②	B
Viet Nam	14	18	T	Project for Development of the National Biodiversity Database System	③	②	②	②	C
	15	19	T	Project on Strengthening the System and Operation on Standards and Conformance for Energy Efficiency and Labeling	③	③	②	③	A
	16	20	L	Nghi Son Thermal Power Plant Construction Project (I)	③	③	①	③	B
		21		Nghi Son Thermal Power Plant Construction Project (II)					
		22		Nghi Son Thermal Power Plant Construction Project (III)					
	17	23	L	Nhat Tan Bridge (Vietnam-Japan Friendship Bridge) Construction Project (I)	③	③	②	③	A
		24		Nhat Tan Bridge (Vietnam-Japan Friendship Bridge) Construction Project (II)					
		25		Nhat Tan Bridge (Vietnam-Japan Friendship Bridge) Construction Project (III)					
		26		Noi Bai International Airport to Nhat Tan Bridge Connecting Road Construction Project(I)					
		27		Noi Bai International Airport to Nhat Tan Bridge Connecting Road Construction Project (II)					
	18	28	L	Terminal 2 Construction Project in Noi Bai International Airport (I)	③	③	②	③	A
		29		Terminal 2 Construction Project in Noi Bai International Airport (II)					
		30		Terminal 2 Construction Project in Noi Bai International Airport (III)					
	19	31	L	Support Program to Respond to Climate Change (I)	③	③	N.A	N.A	N.A
		32		Support Program to Respond to Climate Change (Ⅱ)					
		33		Support Program to Respond to Climate Change (Ⅲ)					
		34		Support Program to Respond to Climate Change (Ⅳ)					
		35		Support Program to Respond to Climate Change (Ⅴ)					
		36		Support Program to Respond to Climate Change (Ⅵ)					
		37		Support Program to Respond to Climate Change (Ⅶ)					
	20	38	L	National Highway No.1 Bypass Road Construction Project	③	③	①	③	See P.28 B※
		39		National Highway No.1 Bypass Road Construction Project (II)					
		40		Cuu Long (Can Tho) Bridge Construction Project					
		41		Cuu Long (Can Tho) Bridge Construction Project (II)					
	21	42	L	Second Hanoi Drainage Project for Environmental Improvement (I)	③	③	①	③	B
		43		Second Hanoi Drainage Project for Environmental Improvement (II)					
Myanmar	22	44	G	The Project for Improving Loikaw General Hospital in Kayah State	③	③	②	③	A
	23	45	G	The Project for Rehabilitation of Baluchaung No.2 Hydropower Plant	③	③	②	③	A
	24	46	G	The Project for Urgent Improvement of Water Supply System for Yangon City	③	③	②	③	A
	25	47	G	The Project for National Single Window and Customs Modernization by Introducing Automated Cargo Clearance System	③	②	③	③	A
China	26	48	L	Jilin Afforestation Project	③	③	②	③	A
	27	49	L	Qinghai Ecological Environmental Improvement Project	③	③	②	③	A
Mongolia	28	50	L	Two-Step-Loan Project for Small and Medium-Scaled Enterprises Development and Environmental Protection Phase II	③	③	②	③	A
Bangladesh	29	51	G	The Improvement of the Capacity of Public Food Storage	③	②	③	②	B
	30	52	L	Dhaka-Chittagong Railway Development Project	③	③	①	②	C
	31	53	L	Telecommunication Network Development Project	③	②	②	②	C
	32	54	L	South-Western Bangladesh Rural Development Project	③	③	①	③	B
India	33	55	G	The Project for Improvement of the Institute of Child Health and Hospital for Children, Chennai	③	③	②	③	A
	34	56	L	Andhra Pradesh and Telangana Irrigation and Livelihood Improvement Project	③	③	②	②	B
	35	57	L	Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project	③	③	②	②	B
	36	58	L	Gujarat Forestry Development Project (II)	③	③	③	②	A
	37	59	L	Kolkata Solid Waste Management Improvement Project	③	③	②	②	B
	38	60	L	Tripura Forest Environmental Improvement and Poverty Alleviation Project	③	③	②	③	A
	39	61	L	Bangalore Metro Rail Project	③	②	②	③	B
		62		Bangalore Metro Rail Project (II)					
	40	63	L	Visakhapatnam Port Expansion Project	③	②	②	③	B
Nepal	41	64	G	The Project for Micro-Hydropower Improvement in Western Area	③	②	②	②	C
Pakistan	42	65	G	Project for Improvement of Child Health Institute in Karachi	③	③	②	③	A
	43	66	L	Indus Highway Construction Project (III)	③	③	②	③	A
Solomon	44	67	G	Project for Improvement of Honiara Port Facilities	③	③	③	③	A
Honduras	45	68	T	The Project for Capacity Development in the Western Region of the Republic of Honduras (FOCAL)	③	③	①	③	B
	46	69	T	The Project for Strengthening of the Capacity Development of Local Governments for Regional Development (FOCAL II)	③	③	②	③	A
Nicaragua	47	70	G	The Project for Construction of Paso Real Bridge	③	③	③	③	A
Jordan	48	71	G	Project for Energy Conservation through Upgrading Water Supply Network in the Hashemite Kingdom of Jordan	③	③	②	③	A
Morocco	49	72	L	Sewage System Development Project	③	②	②	③	B
Tunisia	50	73	L	Metropolitan Railway Electrification Project (I)	③	③	②	②	B
		74		Metropolitan Railway Electrification Project (II)					
Ethiopia	51	75	G	The Project for Construction of Primary and Secondary Schools in the Southern Nations, Nationalities and Peoples' Regional State	③	③	②	②	B
Ghana	52	76	T	The Project for Improvement of Maternal and Neonatal Health Services Utilising CHPS System in the Upper West Region	③	③	②	②	B
Kenya, Uganda, Tanzania, Rwanda and Buruundi	53	77	T	Project on Capacity Building for the Customs Administrations of the Eastern African Region (Phase 2)	③	③	②	②	B
Kenya	54	78	T	Sustainable Smallholder Irrigation Development and Management in Semi-Arid Lands Project	③	②	②	②	C
	55	79	G	The Project for Augmentation of Water Supply System in Narok	③	②	②	③	B
	56	80	L	Mombasa Port Development Project	③	③	②	③	A
Nigeria	57	81	G	Project for Construction of Classrooms for Primary Schools in Oyo State	③	②	③	②	B
	58	82	L	Polio Eradication Project	③	③	③	②	A
Tanzania	59	83	G	The Project for Improvement of Rural Water Supply in Tabora Region	③	③	③	②	A
Zambia	60	84	G	The Project for Groundwater Development in Luapula Province (Phase 1)	③	②	③	②	B
		85		The Project for Groundwater Development in Luapula Province (Phase 2)					
		86		The Project for Groundwater Development in Luapula Province (Phase 3)					
	61	87	G	The Project for Upgrading Lusaka Health Centers to District Hospitals	③	③	②	②	B
Burkina Faso	62	88	G	The Project for Rural Water Supply in the Regions of Central Plateau and South Central (Phase 2)	③	③	③	②	A
Mozambique	63	89	G	The Project for Construction of Health Science Institute in Maputo	③	②	③	②	B
Senegal	64	90	G	The Program for Emergency Water Supply for Addressing Climate Change for the Republic of Senegal	③	③	②	①	C
Mauritania	65	91	G	The Project for the Expansion of Fishing Port in Nouadhibou	③	③	②	②	B
Sudan	66	92	T	Capacity Development Project for the Provision of Services for Basic Human Needs in Kassala	③	③	②	②	B

*1 ③: High, ②: Fair, ①: Low / A: Highly Satisfactory, B: Satisfactory, C: Partially Satisfactory, D: Unsatisfactory (Refer to p.6)
*2 Evaluation No.: the number of evaluations conducted.
*3 Project No.: the number of projects evaluated.
*4 T: Technical Cooperation, L: ODA Loan, G: Grant Aid
*5 Effectiveness includes evaluation of impact.

Internal Evaluation Results

Overall rating

The overall evaluation of 115 projects shows that approximately 70% delivered or exceeded the expected result at the time of the ex-post evaluation. Among 115 projects, including 105 for Technical Cooperation/Assistance and 10 for Grant Aid, most were carried out in Africa and South-East Asia in sectors such as social infrastructure, agriculture, transportation and public sector management.

Evaluation by criteria

Relevance: With some exceptions, almost all projects were consistent with the policies of partner countries in meeting their development needs.
Effectiveness/Impact: Approximately 60% of projects achieved the expected outcomes, while the remaining 40% or so faced some challenges in achieving results.

Challenges observed in some Grant Aid projects included the fact that: (1) the project achievement was below the target since the conditions set were inflexible for long-term changes, and: (2) neither the project purpose nor the overall goal were achieved as planned, despite the projects achieving certain effects. With regards to Technical Cooperation/Assistance projects, in some cases: (1) the intended overall goal was not achieved satisfactorily since the project effect was not sustained after completion due to lack of support from the recipient government, and; (2) neither the project purpose nor the overall goal were achieved as planned because the project design was based on uncertain elements, such as the installation of facilities at the discretion of the recipient government. Moreover, the project effects could not be fully verified at the time of the ex-post evaluation due to vague definitions, the lack of data and information on indicators defined at the project planning stage.

Efficiency: Over 20% of projects were completed within the planned period and cost. For Grant Aid projects, however, 80% were affected by extensions due to security issues and delays to facility construction, equipment procurement and customs clearance meant the project period had to be extended. As for Technical Cooperation/Assistance projects, they went over the planned budget given the need for more activities to achieve the project purposes and with the lack of progress in mind. Moreover, the project period was also extended due to changes in the plan or to achieve the project purposes.
Sustainability: Approximately 80% of projects were identified as having some challenges. One frequent issue included 60% identified as being insufficiently financially sustainable, reflecting the difficulty faced by implementing agencies in securing the required budget, while in terms of institutional sustainability, the second most frequent problem experienced was typically staff shortages. Other frequently observed challenges occurred in technical-related areas, such as the retaining transferred technologies and the omission of routine inspections and repairs.

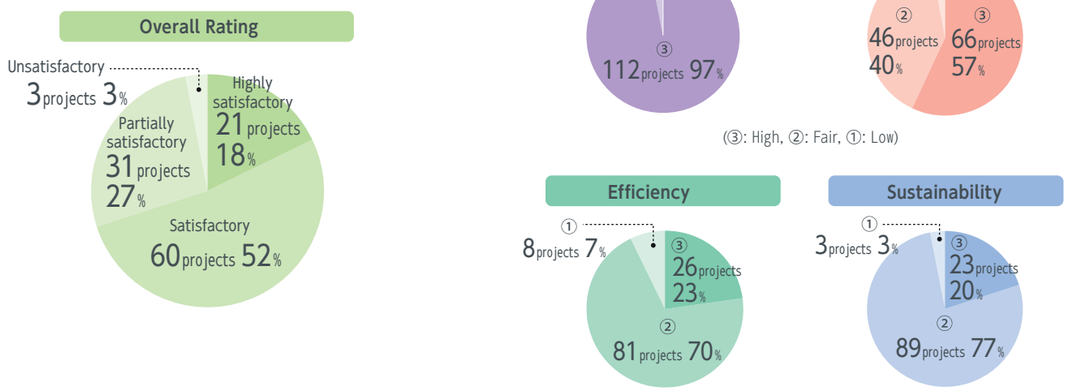


Figure 1 Internal ex-post evaluation results

Accountability and Quality Improvement in Internal Evaluation - Self-assessment and Third-party Quality Check -

As part of efforts to enhance its internal evaluation function to achieve the evaluation objectives (fulfilling accountability and learning lessons for improvement) more effectively and efficiently, JICA has established evaluator's self-assessment and external third-party quality check systems to ensure the quality of internal evaluations since introducing this evaluation system in FY2010.

Specifically, JICA uses check sheets which define the requirements and procedures for good and high-quality self-assessment evaluations and third-party quality checks (hereinafter, "third-party QCs"). From the perspectives of examining the appropriateness of the evaluation process, the validity of ratings for each of the evaluation criteria (relevance, effectiveness/impact, efficiency and sustainability), the validity of the conclusions, recommendations and lessons learned and the consistency of the overall evaluation report, these checklists allow the following requirements and procedures which should be involved in quality evaluation to be confirmed: whether the evaluators conduct tasks while fully aware of the evaluation framework; whether the evaluation report contains all the necessary information; whether evidence on the ground to underpin judgements and factors is stated; whether the description is coherent; and whether evaluation constraints (if any) and their influence on the evaluation results are properly described.

To improve their evaluation reports, the overseas offices (evaluators) try to tick off as many checklist items as possible during their evaluation process.

◇Self-assessment: Evaluators reflect on their own internal evaluation reports midway through and after the evaluation process. Because the check sheet specifies what a high-quality evaluation entails, they can use its content to form guidelines for streamlining project evaluations, improving their evaluation reports and enhancing evaluations overall.

◇Third-party QC: An external third-party verifies the internal evaluation reports by examining the objectivity and impartiality of judgements and the specificity and practicability of the recommendations and lessons learned. The verification results are then sent to the evaluators and used as feedback to improve internal evaluations in future. These verification summaries are also publicly disclosed to enhance accountability.

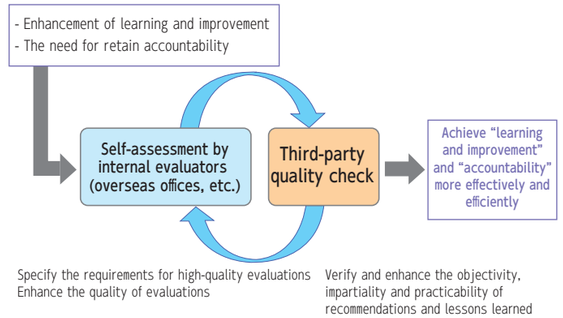


Figure 2 Purpose of third-party QCs

Third-party QC result

JICA verified internal ex-post evaluations in phases: 59*1, 50 and 51 evaluations with results confirmed in FY2017 (Phase 1), FY2018 (Phase 2) and FY2019 (Phase 3), respectively. The analysis was shown as follows:

The third-party QC assesses the quality of internal evaluation recognizable from the evaluation report by using a third-party QC sheet and deems evaluations with standardized points closer to 1.0 as appropriate. As shown in Table 1, the average standardized point was 0.905 for Phase 1, 0.955 for Phase 2 and 0.953 for Phase 3. This revealed that JICA's internal evaluation and self-assessment secured high quality.

Despite the lack of any significant trend over time found in each evaluation criteria, "Effectiveness/Impact" and "General Matters" had higher average standardized points. In particular, the average point of "Effectiveness/Impact," the quality and accuracy of which vary significantly by each evaluator, rose from Phase 1 to Phase 3 (Table 2), indicating that evaluation quality had improved over three third-party QCs.

Table 1 Average standardized score and its standard deviation

	Overall		
	Phase 1	Phase 2	Phase 3
Average	0.905	0.955	0.953
Standard deviation	0.068	0.051	0.044

Table 2 Average standardized score and standard deviation by evaluation criteriadeviation

	Relevance			Effectiveness/Impact			Efficiency			Sustainability			Conclusions/Recommendations/ Lessons learned			General matters		
	Phase 1	Phase 2	Phase 3	Phase 1	Phase 2	Phase 3	Phase 1	Phase 2	Phase 3	Phase 1	Phase 2	Phase 3	Phase 1	Phase 2	Phase 3	Phase 1	Phase 2	Phase 3
Average	0.914	0.977	0.958	0.911	0.956	0.973	0.990	0.961	0.966	0.876	0.944	0.943	0.938	0.940	0.926	0.918	0.987	0.974
Standard deviation	0.097	0.056	0.093	0.148	0.081	0.069	0.044	0.117	0.122	0.124	0.089	0.077	0.092	0.088	0.121	0.155	0.074	0.067

In confirming the gap between the results of the Phase 3 evaluator's self-assessment and the third-party QC, the latter assessed evaluation quality as higher than the former (Table 3). Meanwhile, "Conclusions/Recommendations/Lessons learned" was the only criterion in which the standardized point of the third-party QC was lower than self-assessment, suggesting room for improvement in some cases in areas such as necessity, usefulness and concreteness of recommendations/lessons learned.

Table 3 Comparison of standardized scores between the results of third-party QCs and self-assessment (Phase 3)

	Overall	Relevance	Effectiveness/ Impact	Efficiency	Sustainability	Conclusions/ Recommendations/ Lessons learned	General matters
Third-party QCs	0.952	0.958	0.973	0.966	0.943	0.926	0.974
Self-assessment	0.899	0.944	0.933	0.841	0.877	0.955	0.864

The third-party QC results up to Phase 3 confirmed that the internal evaluation had secured high quality while revealing that internal evaluation reports did not always verify the appropriateness of indicators and need to use supplementary data. To improve internal evaluations and make them more substantive, JICA will strive to ensure the system shows more convincing evaluation results by enhancing the content of manuals and expanding self-assessment criteria.

*1: Refer to P.11 of the JICA Annual Evaluation Report 2019 for detailed results of the FY2018 Quality Check.
*2: Although there were 51 evaluations, a third-party quality check for an integrated evaluation across Grant Aid and Technical Cooperation was conducted for each scheme (counting two evaluations). Accordingly, the number of QCs was 52.

List of Internal Ex-post Evaluations

In principle, internal ex-post evaluation covers those projects costing 200 million yen or more and less than one billion yen.
Click on a project name to jump to see its ex-post evaluation report.

Note: Since one project contains "Non-Disclosure Information" as provided for by the Act on Access to Information Held by Administrative Organs, 104 out of 105 Technical Cooperation/Technical Assistance Projects Related to Japanese ODA Loan projects are included in the list.

Country	*1 Evaluation No.	*2 Project No.	*3 Scheme	Project name
Malaysia	1	1	T	Project for Development of Low Carbon Society Scenarios for Asian Regions
	2	2	T	Research and Development for Reducing Geo-Hazard Damage in Malaysia caused by Landslide and Flood
Laos	3	3	T	Project for the Capacity Development of Business Persons through Laos-Japan Human Resource Development Institute
	4	4	T	Project for Sustainable Development of Human Resources for Health to Improve Maternal, Neonatal and Child Health Services
	5	5	G	Project for Improvement of Equipment and Facilities on Meteorological and Hydrological Services
	6	6	T	Forest Strategy 2020 Implementation Promotion Project
	7	7	T	Livelihood Improvement Project for Southern Mountainous and Plateau Areas
	8	8	T	Project for Enhancing Capacity of Public Investment Program Management (Phase 2 project)
		9	TAP	Project for Establishing Public Investment Plan under NSEDP (Phase 3 project)
	9	10	T	Project for Urban Development Management
	10	11	T	Capacity Development for Sector-wide Coordination in Health Phase 2
East Timor	11	12	T	Project for Study on Dili Urban Master Plan
	12	13	T	The project for Capacity Development of Teaching Staff in the Faculty of Engineering, the National University of Timor-Leste (CADETES)
		14	T	The project for Capacity Development of Faculty of Engineering, Science and Technology, the National University of Timor-Leste (CADEFEST 1)
Viet Nam	13	15	T	Establishment of Carbon-Cycle-System with Natural Rubber
	14	16	T	Project for the Development of Crop Genotypes for the Midlands and Mountain Areas of North Vietnam
	15	17	T	Project for Strengthening Capacity of Ho Chi Minh National Academy of Politics and Academy of Public Administration in Training of Public Leaders and Civil Servants
	16	18	T	Multi-beneficial measure for the mitigation of climate change in Vietnam and Indochina countries by development of biomass energy
	17	19	T	Development of Landslide Risk Assessment Technology along Transport Arteries in Viet Nam
	18	20	T	Determine the Outbreak Mechanisms and Development of a surveillance Model for Multi-Drug Resistant Bacteria
	19	21	TAP	Project for Strengthening the Enforcement of Intellectual Property Rights in Viet Nam
	20	22	TAP	Project for Building Disaster Resilient Societies in Vietnam (Phase 2)
	21	23	TAP	Project for strengthening TOT functions at Hanoi University of Industry (HaUI)
	22	24	T	Project for Improvement of the Quality of Human Resources in the Medical Service System
	23	25	TAP	Project for Improving Public Transportation in Hanoi
	24	26	T	Project on Improvement of Urban Transportation of Danang City
	25	27	TAP	Establishment of Energy Management Training Center
	26	28	T	Project for Promoting E-customs in Vietnam
Thailand	27	29	T	Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels
Philippines	28	30	T	Improvement of Quality Management for Highway and Bridge Construction and Maintenance (Phase I)
		31	T	Improvement of Quality Management for Highway and Bridge Construction and Maintenance (Phase II)
	29	32	T	The Project for Capacity Development on Transportation Planning and Database Management in the Republic of the Philippines
	30	33	T	Project on Integrated Coastal Ecosystem Conservation and Adaptive Management under Local and Global Environmental Impacts in the Philippines (SATREPS)
Cambodia	31	34	T	The Project for Improving Maternal and Newborn Care through Midwifery Capacity Development
	32	35	T	Strengthening Human Resources Development System of co-medicals in Cambodia
	33	36	T	Project for Productions of Integrated Digital Terrain Model and Electronic Navigational Chart in the Kingdom of Cambodia
Indonesia	34	37	T	Project for Climate Variability Study and Societal Application through Indonesia-Japan "Maritime Continent COE"- Radar-Buoy Network Optimization for Rainfall Prediction
Fiji and Solomon	35	38	T	The Strengthening Community-Based Disaster Risk Management Project
India	36	39	T	Master Plan Study on the Introduction of Intelligent Transport System (ITS) in Bengaluru and Mysore
Nepal	37	40	G	The Project for the Improvement of Community Access
Afghanistan	38	41	T	Urban Health System Strengthening Project
	39	42	T	Project on Enhancing Women's Economic Empowerment in Afghanistan
Sri Lanka	40	43	T	The Project for Training of Frontline Officers in Community Development in Conflict Affected Areas in Sri Lanka
	41	44	T	Capacity Development Project for Creating Digital Elevation Model Enabling Disaster Resilience
Bangladesh	42	45	TAP	The Project for Advancing NRW Reduction Initiative (PANI) of Chittagong WASA
China	43	46	T	The project for promotion of municipal solid waste recycling
Kyrgyz	44	47	T	Project for Capacity Development for Maintenance Management of Bridges and Tunnels
Mongolia	45	48	T	Project for Capacity Building of Public-Private Partnership in Mongolia
Tajikistan	46	49	G	The Project for Improvement of Medical Equipment and Water Supply and Drainage Facilities for Maternal and Child Health Care Institutions
	47	50	T	The Project for Improvement of Road Maintenance
Papua new Guinea	48	51	T	Project for the Study on Lae-Nadzab Urban Development Plan
Cuba	49	52	T	The Project for Capacity Enhancement of Groundwater and Seawater Intrusion Management
Honduras	50	53	G	Micro-Hydroelectric Power Generation Project in the Metropolitan area of Tegucigalpa
Brazil	51	54	TAP	Project for Improvement of Operation and Maintenance of Water Supply and Sewerage Systems in Parana State
Panama	52	55	T	Comparative Studies of the Reproductive Biology and Early Life History of Two Tuna Species Yellowfin Tuna and Pacific Bluefin Tuna for the Sustainable Use of These Resources
Paraguay	53	56	TAP	Project for Capacity Development of Distribution Network Management of ESSAP
El Salvador	54	57	T	Production Improvement and Extension of Shellfish Aquaculture Project
	55	58	T	Supporting the small-scale farmeres in the Eastern Region
Nicaragua	56	59	T	The Project for Enhancing Integrated Service Delivery for Social Risk Prevention and Attention for Families and Communities
Ecuador	57	60	T	Integrated Sustainable Rural Development in the Province of Chimborazo
	58	61	TAP	Project for Reactivation of "Catarama River Basin Irrigation Project"
Chile	59	62	T	Research Project on Enhancement of Technology to Develop Tsunami-Resilient Community
Peru	60	63	TAP	Project for Improving Livelihood of Small-Scale Farmers in Cajamarca
Kenya	61	64	TAP	The Project for Capacity Development of Solid Waste Management of Nairobi City
	62	65	T	Project for Development of Rapid Diagnostics and the Establishment of an Alert System for Outbreaks of Yellow Fever and Rift Valley Fever
	63	66	TAP	Project for Technical Assistance to Kenya Ports Authority on *Dongo Kundu* Port, Mombasa Master Plan
	64	67	T	Project on Capacity Development for Effective Flood Management in Flood Prone Areas
Malawi	65	68	T	Institutional and Human Resource Development Project For One Village One Product Programme (OVOP)
		69	T	Strengthening the Capacity of OVOP Programme for Delivering Services to OVOP Group in Malawi
	66	70	G	The Project for Introduction of Clean Energy by Solar Electricity Generation System
	67	71	T	Sustainable Land Management Promotion Project
Nigeria	68	72	G	The Project for Introduction of Clean Energy by Solar Electricity Generation System
	69	73	T	Rice Post-Harvest Processing and Marketing Pilot Project in Nasarawa and Niger States
Mozambique	70	74	T	The Project for Development of Local Industry through One Village One Product Movement
Guinea	71	75	T	The Large Scale Topographic Mapping Project for Sustainable Development in Conakry City and its Surrounding Area
Cameroon	72	76	T	Establishment of Sustainable Livelihood Strategies and Natural Resource Management in Tropical Rain Forest and Its Surrounding Areas of Cameroon: Integrating the Global Environmental Concerns with Local Livelihood Needs
Ethiopia	73	77	G	The Programme for Emergency Water Supply for Addressing Climate Change
	74	78	T	Project for Groundwater Resources Assessment in the Middle Awash River Basin
	75	79	T	Capacity Development Project for Countermeasure Works for Landslide
	76	80	T	Project on Community Tourism Development through Public-Private Partnership in Simien Mountains National Park and Surrounding Areas
	77	81	T	The Project for Formulating Master Plan on Development of Geothermal Energy in Ethiopia
	78	82	G	The Project for Water Supply to Small Cities in Southern Part of Amhara Regional State
Ghana	79	83	T	Studies of Anti-viral and Anti-parasitic Compounds from Selected Ghanaian Medicinal Plants (SATREPS)
	80	84	T	The Project on Electrical Engineers Training for African Countries (EETA)
Dibouti	81	85	G	Project for Construction of Patrol Vessels for Enhancing the Ability to Secure Maritime Safety and Security
Uganda	82	86	T	Project for Capacity Development in Planning and implementation of Community Development in Acholi Sub-Region
	83	87	T	Project on Irrigation Scheme Development in Central and Eastern Uganda
Tanzania	84	88	T	Technical Cooperation in Strengthening the Backstopping Capacities for the DADP Planning and Implementation
		89	T	Project for Strengthening the Backstopping Capacities for the DADP Planning and Implementation under the ASDP Phase 2
	85	90	T	The Project for Enhancement of Water Supply Management of Zanzibar Water Authority
		91	T	Project for Enhancement of Water Supply Management of Zanzibar Water Supply Authority Phase 2
	86	92	T	Rural Road Maintenance System Development Project
	87	93	T	Formulation and Training of the Guideline of the DADP Guidelines on Irrigation Scheme Development
	88	94	T	The Rural Water Supply and Sanitation Capacity Development Project
		95	T	Rural Water Supply and Sanitation Capacity Development (RUWASA-CAD) Project Phase 2
	89	96	T	Technical Cooperation in Capacity Development for the ASDP Monitoring and Evaluation System (The Phase 1 Project)
		97	T	Project for Capacity Development for the ASDP Monitoring and Evaluation System Phase 2 (The Phase 2 Project)
	90	98	T	Project for Capacity Development for Local Government Training Phase 2
Zambia	91	99	T	Strengthening Teachers' Performance and Skills (STEPS) through School-Based Continuing Professional Development Project
Mauritius	92	100	T	Project for Landslide Management
	93	101	T	Project for Capacity Development on Coastal Protection and Rehabilitation
South Africa	94	102	T	Prediction of Climate Variations and Its Application in the Southern African Region
Côte d'Ivoire	95	103	T	Digital Topographic Mapping Project for Urban Infrastructure Development
	96	104	T	Project for the Development of Urban Master Plan in Greater Abidjan
Senegal	97	105	T	Project on the Improvement of Educational Environment Phase I
		106	T	Project on the Improvement of Educational Environment Phase II
	98	107	T	Strengthening Mathematics, Science, and Technology Education Project (PREMST) Phase 2
	99	108	T	Project for Updating Dakar Urbanization Master Plan by the Horizon 2025
Burkina Faso	100	109	T	Project of Teacher Training Improvement in Science and Mathematics at Primary Level Phase II
	101	110	T	The Project for the Formulation of Master Plan for the Market-Oriented Agriculture in Burkina Faso (PAPAOM)
Togo	102	111	T	The Project for the Study on Togo Logistics Corridor Development
Egypt	103	112	T	Project for Drainage Water Quality Control for Irrigation in Middle Delta
	104	113	T	The Project for Improvement of the Bridges Management Capacity
Palestine	105	114	T	Project for Improvement of Local Finance System in Palestine
	106	115	T	Project for Sustainable Tourism Development through Public Private Partnership (Phase 2)
	107	116	G	The Project for the Improvement of Solid Waste Management in the West Bank
Jordan	108	117	T	Sustainable Community Tourism Development Project in As Salt City
Tunisia	109	118	T	Project for Strengthening the Capacity for Tourism Promotion
	110	119	T	Project on Regional Development Planning of the Southern Region in the Republic of Tunisia
Morocco	111	120	T	Capacity Development of Fisheries Resources Monitoring for Sustainable Management of Small Pelagic Resources in the Kingdom of Morocco
	112	121	T	The Project for Capacity Development for Solid Waste Management in Tiznit Commune and Neighboring Communes
Bosnia and Herzegovina	113	122	T	The Project for Confidence-Building in Srebrenica on Agricultural and Rural Enterprise Development
	114	123	T	The Project for Confidence-building through Rural Development

*1 Evaluation No.: the number of evaluations conducted.
*2 Project No.: the number of projects evaluated.
*3 T: Technical Cooperation, TAP: Technical Assistance Projects Related to Japanese ODA Loan, G: Grant Aid

Republic of the Union of Myanmar

Grant Aid

The Project for Urgent Improvement of Water Supply System for Yangon City

The project realized stable water supply by improving the water supply facilities.

External Evaluator: Tomoko Tamura, Kaihatsu Management Consulting, Inc.

Overall	
A	
Effectiveness and Impact	3
Relevance	3
Efficiency	2
Sustainability	3

Project Description

Grant limit/Actual Grant amount:
1,900 million yen/1,851 million yen

Exchange of notes: May 2013

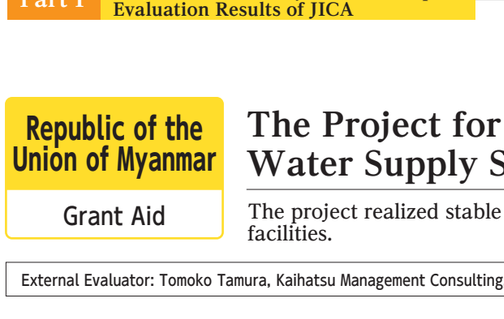
Project Completion: May 2016

Implementing agency:
Water Resource & Water Supply Authority, Yangon City Development Committee

Overall Goal:
Improve living environment of the local community.

Project Purpose:
Improve water supply services corresponding to the rapidly increasing demand for water.

Output:
Rehabilitate the facilities in need of urgent improvement in Yangon City.



Transmission and distribution pumps installed by the project at the Nyaunghnapin First Phase Water Treatment Plant

Effects of Project Implementation (Effectiveness, Impact)

The following three components were implemented in the project and produced sufficient effect.

(1) Pumps at the Nyaunghnapin First Phase Water Treatment Plant, which provided 40% of the total water supply of the Yangon City, were replaced in the project because they had been severely aging and out of order. As a result, the pumps are fully running, and the expected average daily operating hours was almost achieved. The amount of water transmitted by the pumps increased significantly as well.

(2) Traffic flow at the Kaba Aye Pagoda Road had been interrupted frequently due to repairs of burst to the distribution main pipeline at the road. However, no traffic interruption due to pipeline bursts had occurred after the pipeline was renewed in the project.

(3) Leakage rate, water pressure and water volume were improved considerably as a result that the distribution network in the pilot area in Yankin Township was renewed. Improvement in the water supply services, including increased hours of water supply, resolution of the problem of water cuts, increased water pressure and quantity were realized in the project beneficiary area. It was found, for examples, that water is reached to the 4th floor of apartment complexes without using a pump; and water supply resumed after completion of the project in an area where water had not been supplied for the past 20 years.

There are also examples that the improved water supply services enhanced the convenience of life and improved hygienic behavior of the people. The project contributed to improving the living environment of the local community. Therefore, effectiveness and impact of the project are high.

Relevance

Improvement of water supply and sanitary conditions was a priority issue for Myanmar from the time of project planning to the ex-post evaluation. There was a high need for improvement of water supply services in Yangon City because there were problems such as water cuts, low water pressure, limited hours of water supply and water leakage. The project was consistent with Japan's ODA policy. Therefore, the relevance of the project is high.

Efficiency

All planned facility construction was conducted according to the plan in general. A change in the number in the component of the renewal of distribution main pipeline was implemented in the consequences of actual measurement and confirming the necessity. The target area of the component for the renewal of distribution network was expanded to around four times. Although the project cost fell within the planned budget, the project period was extended (145%); therefore, efficiency of the project is fair.

Sustainability

The staff required for the operation and maintenance of the facilities developed in the project are secured, and there were no problems relating to the technical aspects. The budget necessary for operation and maintenance of the facilities developed in the project has been secured. The operation and maintenance status of the facilities is generally favorable. As described above, sustainability of the project effects is high.

Conclusion, Lessons Learned and Recommendations

In light of the above, the project is evaluated to be highly satisfactory.

The District Metered Area (DMA) monitoring system introduced in the project had various problems after the installation; and required repairs and adjustments. At the time of the ex-post evaluation, the system was not fully utilized because of a new problem. The system was unable to receive flow rate data continuously after a change in the internet communication environment. A system, which requires software and internet communication service, such as the above-mentioned system, can have problems that cannot be solved with the knowledge acquired through the initial technical training on operation. As for the lessons learned in this project, it was needed to ensure a prospect for the follow-up work of these problems and the cost burden for the purpose at the time of newly introducing such a system.

As reccomendations to the Executing Agency, the following points were raised: taking necessary measures in order to make the DMA monitoring system functioning and utilized properly; and cleaning the filters of the consumer water meters regularly approximately once a year.

It is planned to install DMA monitoring systems in two ongoing Japanese ODA loan projects in Yangon City. Therefore, JICA is recommended to continue monitoring the status of usage of the DMA monitoring system introduced in the project and to utilize the lessons derived from the monitoring.

The project improved water pressure and quantity at a house in Yankin Township

The project improved water pressure and quantity at a primary school in Yankin Township

Table Status of Achievement of the Indicators of each Component

Indicators	Baseline	Target	Actual	
	2012	2018 (3 years after project completion)	2019	
			Value	Level of Achievement
(1) Transmission time at Nyaunghnapin First Phase Water Treatment Plant (pump operation hours/day/unit)	16.7	24.0	22.9	95%
(2) Number of bursts of the distribution main pipeline	17 times/2 years	0/year	0/year	100%
(3) Water leakage rate at the target area in Yankin Township	Over 50%	10%	8% or less	100%

Source: The baseline and target figures refer to the preparatory survey report, and the actual figures are based on the responses to the questionnaire of the ex-post evaluation.

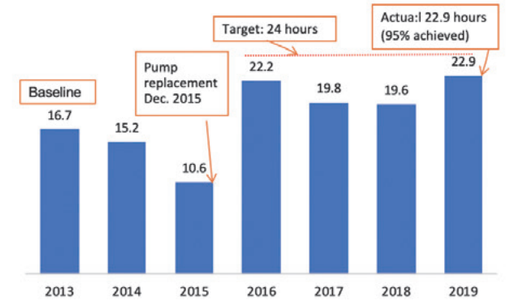


Figure 1 Average Operating Hours per day of the Pumps at the Nyaunghnapin First Phase Water Treatment Plant (Unit: hour/day/unit)

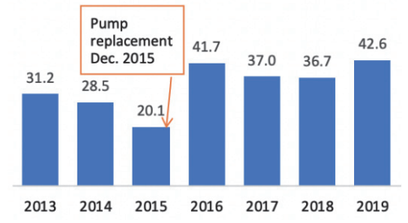


Figure 2 Average Water Transmission Volume per day of the Pumps at the Nyaunghnapin First Phase Water Treatment Plant (Unit: Million Gallons/day)

Source: Prepared by the evaluator based on the responses to the questionnaire of the ex-post evaluation.

Key Point of Evaluation — **Timely and multi-dimensional assistance for improving water supply services in Yangon City**

Water supply facility in Myanmar was developed in 1842 during the British colonial-era. The facility, including water conduits, transmission and distribution pipelines were not renewed properly and continued to be aging. JICA conducted a development study named "The Study on Improvement of Water Supply System in Yangon City in the Union of Myanmar" in 2002 with the aim of improving the system by 2020. However, the plan proposed in the study was hardly implemented because of financial difficulties under the military rule. After the transition to civilian rule in 2011, Japan started assistance for the first time in 12 years after receiving a request from the Myanmar government. This project developed the facilities identified most urgent and important in a study conducted by the Ministry of Economy, Trade and Industry of Japan at that time. Forty percent of the total water supply of the city would have stopped if the water transmission and distribution pumps at the Nyaunghnapin First Phase Water Treatment Plant had not been renewed in this project. This project made a speedy response possible to such an urgent need.

In parallel with this project, JICA conducted the "Preparation Survey on the Project for the Improvement of Water Supply, Sewerage and Drainage System in Yangon City in the Republic of the Union of Myanmar" in 2012 with an aim of updating the above-mentioned study conducted in 2002. This survey set the targets of water supply services in Yangon City and showed the path to achieve them. It was an indispensable arrangement for implementation of the subsequent programs responding to a rapid increase in population and water demand of the city. At present, Yangon City has been working on improving water supply services by utilizing technical and financial assistance from Japan in multiple dimensions, such as technical cooperation projects and dispatch of experts with a collaboration of Fukuoka City and Tokyo Metropolitan Government, ODA loan projects for constructing large-scale water purification plants, and grant aid with a service concession arrangement project of the Ministry of Foreign Affairs of Japan.

Republic of Honduras

Technical Cooperation

The Project for Strengthening of the Capacity Development of Local Governments for Regional Development (FOCAL II)

Putting people in charge of development - fostering a planning culture for local development through the diffusion of a new method.

External Evaluator: Hajime Sonoda, Global Group 21 Japan, Inc.

Overall	
A	
Effectiveness and Impact	3
Relevance	3
Efficiency	2
Sustainability	3

Project Description

Total cost: 379 million yen

Period of cooperation: October 2011 – November 2016

Partner contry's implementing organizations:
Secretary of Human Right, Justice, Governance and Decentralization (SDHJGD)

The number of experts dispatced:
(long term) 3/ (short term) 4

The number of technical training participants:
Training in Japan: 26 participants
Third country training: 1 participant

Main equipment provided:
Vehicle, PC, office equipment, etc.

Overall Goal:
Establish the system of implementation of the FOCAL process at the national level through the associations of municipalities (AMs) and the municipalities within the framework of the National Vision and the National Plan.*1

Project Purpose:
The FOCAL process is applied in the selected municipalities through the collaboration of the AMs, in order that the use of local funds and human resources is optimized and people can participate in local development.

Output:
1. The SDHJGD, in coordination with other institutions, is able to extend the FOCAL process.
2. The selected associations are strengthened through the FOCAL process and can provide technical assistance to municipalities.
3. The selected municipalities acquire skills through the FOCAL process and the capacities for local development are strengthened.
4. SDHJGD in cooperation with the Association of Municipalities of Honduras (AMHON) and other related organizations is able to support the sharing and dissemination of knowledge and experience about FOCAL process among local governments.

Street improved through resident participation (Municipality of El Porvenir)

Effects of Project Impelementation (Effectiveness, Impact)

The Project was implemented for its stated purpose of "the FOCAL process is applied in the selected 136 municipalities through the collaboration of 30 AMs. In the FOCAL process, a community development plan is prepared to address priority projects based on issues and needs identified through community participation,and then,a municipal development plan is prepared. Since the projects are implemented with the participation of residents and with the consensus of the community, the project cost is reduced through the active contribution of the residents, and a high level of commitment from the residents to the operation and maintenance of the developed infrastructure facilities is ensured. The municipal development plan prepared by the FOCAL process is more consistent with the needs of the residents, and the project cost is reduced. As a result, it can be said that the fulfillment of basic services such as road improvement, education and health facility development, and water and sewage system development is more appropriate and efficient than before. In addition, the FOCAL process has also contributed to strengthening the trust between the municipality and its citizens, strengthening the capacity of the munitipality, and attracting external funding by the municipality and the community. During the implementation of the Project, the implementation of the FOCAL process was institutionalized in accordance with the regulations promulgated by SDHJGD, and the sheme for implementing the FOCAL process was subsequently established nationwide through the Project and subsequent technical cooperation*2. Therefore, the effectiveness and impact of the Project are high.

Relevance

In the policy and development needs of Honduras, both at the time of planning and at the time of termination of the Project, the importance of strengthening the capacity of local governments to be the recipients of decentralization was high. The methods to properly plan and implement municipal public investment projects was also recognized as impotant issues. It was also highly consistent with Japan's ODA policy at the time of its planning. Therefore, the relevance of this project is high.

Efficiency

The personnel who were involved in the development and dissemination of the FOCAL process in the earlier technical cooperation continued to be involved in the implementation of the Project as experts and local consultants, and the fact that they were able to fully utilize their experience in the earlier technical cooperation led to the efficient implementation of the Project. Although the project period was within the plan, the project cost exceeded the plan. Therefore, the efficiency of the Project is fair.

Sustainability

Although there is a need to improve the staffing structure for the operation of the FOCAL process at SDHJGD, the AMs, and the municipality, no major problems have been observed concerning the policy background and organizational, technical and financial aspects. Therefore, the sustainability of the project effects is high.

*1: The term "FOCAL" is an abbreviation of the project title in Spanish, meaning "the capacity development of local areas (*Fortalecimiento de Capacidados Locales*)" of the previous "Project for Capacity Development in the Western Region of the Republic of Honduras". The previous project established "an appropriate model to properly socialize, formulate, execute, manage, operate and maintain projects for the consolidation of social infrastructure" and the present Project disseminated such model nationwide. The method involved is called the FOCAL process in Honduras.
*2: Advisor for Strengthening of Local Governance Capacity (June 2017 - June 2019)

Classrooms built in accordance with the community development plan (Municipio de San Antonio del Norte)

Tourist facilities developed through residents' initiatives (Municipio de Yamaranguila)

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be highly satisfactory.

As for the recommendations, in the 15 years since the FOCAL process was developed through prior technical cooperation, the FOCAL process has been disseminated nationwide and significant progress has been made, including institutionalization. In light of the fact that various experiences have been accumulated in many AMs and municipalities, it is suggested that SDHJGD completely review the methodology and operation of the FOCAL process by gathering various experiences and opinions from the field. In addition, it is necessary to strengthen the staffing structure of SDHJGD's Municipal Planning Unit, to establish a dedicated unit for FOCAL process and promote human resource development in all municipalities,

As lessons learned, through the experience of the Project, in technical cooperation aiming at the formation and dissemination of models, it is important to create momentum for dissemination by widely sharing the usefulness and achievements of the model with government officials and donors。 It would contribute to maintain technical continuity throughout the support period, and to systematically and continuously work for institutionalization. The importance of the role of JICA Honduras Office in the preparatory period of technical cooperation was also recognized.

Table Advantages of the FOCAL Process According to AMs and Municipalities (Ratio of AMs and municipalities responding in the affirmative)

Advantages of the FOCAL Process	AMs	Municipalities
● Implementation of projects in accordance with residents' needs and priorities	87%	90%
● Secured transparency in planning and implementing projects	73%	59%
● Facilitation of resident participation	60%	54%
● Strengthening of the relationship of trust between the municipality and residents	27%	46%
● Facilitation of obtaining external funding by NGOs, donors, etc.	33%	29%
● Advancement of the empowerment of residents	13%	15%
● Facilitation of obtaining central government grants	0%	0%
● Strengthening of the municipality's own funding sources	0%	0%
● Others	0%	0%

Source: Questionnaire survey as part of the ex-post evaluation (15 AMs and 41 municipalities responded)
Note : The respondents were given all choices and asked to select up to three.

Key Point of Evaluation — Changes of Municipal Governance and Communities Due to Introduction of the FOCAL Process

In Honduras, prior to the introduction of the FOCAL process, municipal development plans were created based on projects proposed by mayors and muncipal council members, but the criteria for their adoption were unclear and depended exclusively on the political party affiliation and bargaining power of the village representatives. The FOCAL process has brought order and a medium-term perspective to the municipal development planning, and better projects based on the needs and consensus of the residents have been adopted. It can be said that the "planning culture" that has been lacking in Honduras' local government has begun to take root. As one mayor recalls;

When I became mayor, I thought about selling my own ideas for municipal development to donors and NGOs to obtain their financial support so that many beneficial projects could be implemented. However, my ideas did not necessarily reflect the needs of the citizens. As we have the FOCAL process now, the concept of a mayor leading municipal development is no longer tenable. Residents are the main actors in development, and the role of a mayor is to facilitate the participation of citizens and to organize the traffic of the discussion.

There has been a change in the attitude of the residents, who used to just wait for support from outside. For example, residents of one village thought that solving their village's problems was a job for the national government or the municipality. However, the village leaders who received training through the Project realized that they can develop their village by themselves if they work together. And in the project to maintain the village streets, the villagers provided construction materials and labor, which allowed the paved section to be extended nearly twice as long with the same budget. The villagers take great care in maintaining the roads, for example, prohibiting the passage of heavy machinery. The head of the village community speaks of his aspirations, "Seeing the villagers awaken and raise their self-esteem has strengthened my love for the village. I hope that the village will continue to work as one, together with the municipality and other support organizations."

India

ODA Loan

Bangalore Metro Rail Project/ Bangalore Metro Rail Project (II)

Initiatives of Bangalore Metro: Coordination with other modes of transport and interaction with citizens

External Evaluator: Yumiko Onishi, IC Net Limited

Overall	
B	
Effectiveness and Impact	2
Relevance	3
Efficiency	2
Sustainability	3

Project Description

Loan amount/Disbursed amount:
(I) 44,704 million yen / 38,181 million yen
(II) 19,832 million yen / 19,659 million yen

Loan agreement: (I) March 2006 (II) June 2011

Terms and conditions:
Interest rate: (I) 1.3%, (II) 1.4% (for civil work), 0.01% (for consulting services)
Repayment period: 30 years (10 years grace period)
Conditions for Procurement: general untied

Final disbursement date: June 2017

Executing agency:
Bangalore Metro Rail Corporation Limited(BMRCL)

Overall Goal:
To promote regional economic development and improve the urban environment in Bangalore, the State capital of Karnataka in South India.

Project Purpose:
To cope with the increasing traffic demand in Bangalore through mitigation of traffic jams and decrease of pollutions caused by increasing motor vehicles.

Output:
Construction of mass rapid transportation system

Maintenance at a depot

Effects of Project Implementation (Effectiveness and Impact)

Caused by lesser number of ridership than originally expected, operation and effect indicators such as number of running trains, volume of transportation and income from passengers have not reached the target, except operating rate, keeping the achievement rate of the Project 29-77%. While last mile connectivity (linkage between a metro station and the destination or the point of departure) not necessarily being secured among others reasons is causing less ridership, it has been on increase since the commercial operation started as initiatives such as improving the access to metro station and procurement of additional coaches are implemented. Metro is becoming an important means of transport for the people of Bangalore, and improvement in various indicators are expected in the future. Based on the interviews conducted to the passengers at the time of ex-post evaluation and third-party survey, it is confirmed that the Project is contributing to reducing traffic congestion and air pollution in Bangalore, as well as to promote reginal economic development to a certain extent. With land acquisition for the Project, 169 households from slum area have been rehabilited in two resettlement areas prepared by the Bangalore Metro Rail Corporation Limited (BMRCL), the executing agency, and no particular issues was observed. As regards to impact on natural environment, necessary actions were taken during the project implementation, and no specific adverse impact was seen. Therefore, the effectiveness and impact are fair.

Relevance

Development of mass rapid transport system has been given important position in Indian policy since the 1990s until the time of ex-post evaluation. In Bangalore, urban transport network depending on surface transport was reaching its limit due to increasing number of vehicles and limited land availability for widening the road.

Moreover, air pollution caused by the poor quality of fuel and the use of outdated engines is a serious issue from the time of the appraisal to the ex-post evaluation, and thus the need for the Project continues to exist. Consistency with the Japan's ODA policy is also confirmed, and the relevance of the Project is high.

Efficiency

In the Project, extension of South-North line was included after the Project started based on the master plan of Bangalore City. In addition to the extension, because of escalation of the prices of materials and equipment due to the delay in the project and the cost of the additional underground civil works, Tranche II was provided as additional loan; however, the project cost was within the plan. Delay in the project was mainly caused by delay in underground civil works caused by hard rocks and contractors running short of funds. Because the project period exceeded the plan, the efficiency of the project is fair.

Sustainability

BMRCL, which is the institution in charge of operation and maintenance (O&M), has no particular issue as regards to institutional arrangement and technical aspect. Share of the fare revenue in the O&M cost was 64% in the opening year, and it has been more than 100% thereafter, and thus, the fare structure does not seem to pose any issue for meeting the O&M cost. Moreover, BMRCL is working hard to increase the advertisement revenue, and its financial status appears to be sound. Therefore, the

Inside a metro station

Installation made in coordination with a local college at Peenya Station

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be satisfactory.

A lesson learned from the project is coordination with other modes of transport, which has helped in enhancing the convenience and mobility for people. Importance of integrating the metro with other modes of transport has been pointed out in India even before the project; however, coordination with multiple transport agencies has not been easy. Nevertheless, From the time of project formulation, the project consciously coordinated with Indian Railways, long distance buses, and city buses while it was constructing the metro network and stations. This has resulted in several stations in the metro lines where transfer to other transport modes can be easily made. To integrate with other transport modes after the construction of metro lines requires changes in the design of stations, thus, by making coordination from the project formulation stage, the project could avoid situation such as changing the design after the project started. Filed visit during the ex-post evaluation survey and the interviews to the passengers confirmed that the integration between the metro and other transport modes is convenient for the users who come from outside the city, and is contributing to gaining some degree of ridership. To connect to Indian Railways, land had to be provided by Indian Railways to construct a passageway from the metro on the land owned by the railway. Although it took time to secure the land, the project negotiated persistently and repeatedly with other transport institutions and enhanced the convenience and mobility of people using transport.

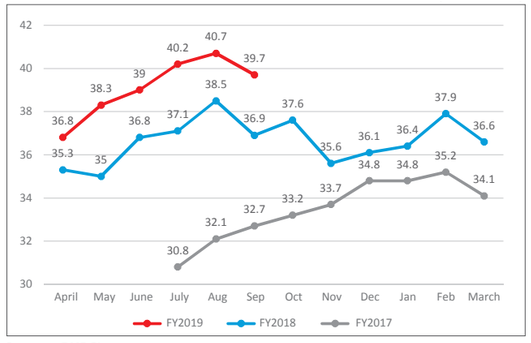
Table Operation and effect indicators

Indicator	Target	Actual			Achievement (Actual in FY2019/ Target)
	2015 (2 Years After Completion)	FY2017*	FY2018	FY2019 (2 Years After Completion)	
Operating rate (%/year)	92	100	100	97	105%
Running distance (thousand km/day)	16.12**	10.20	12.37	11.78	73%
Number of running trains (two directions/day)	780***	505	586	542	70%
Volume of transportation (million man km/day)	10.12	2.72	3.46	3.74	37%
Income from passengers (INR million/day)	17.0	7.70	9.72	10.59	62%
Ridership (persons/day)	1,020,000	299,197	366,407	393,799	29%****

Source: Materials provided by JICA, BMRCL
* The fiscal year in India is from April to March of the following year.
** At the time of the appraisal, it was calculated as network length x number of running trains x round trips x number of coaches = 48.3 thousand km/day. However, BMRCL normally uses the following formula: running distance = number of running trains x network length. Thus, the target anticipated at the time of the appraisal has been re-calculated.
*** In the documents at the time of the appraisal, the number of running trains was 390 based on one-way trip (single direction), but round trip (two directions) was used to compare with the actual.
**** Target was for the year of full commercial operation. Therefore, 2017 was used as the year of comparison for achievement.

Figure Average daily ridership

Unit: Thousand persons/day



Source: BMRCL

Key Point of Evaluation

As characteristics of the project, two aspects stand out. One is the enhancement of convenience and mobility through integration with other mode of transport as described above. Another is use of metro as space for interaction with citizens as described below.

For instance, in several station of Bangalore Metro, a local college is undertaking the "Art in Transit" initiative using the space in and out of the stations. The initiative provides opportunities for the people in transit to think and discuss Bangalore's history, identity, and social issues, while the works of students studying art, design, and technologies are displayed and the space is used for experiment. Metro entrance and exits, which are not currently in use, are turned into studio space for Art in Transit, and at times, theater and workshops are conducted there, and some people come to the stations for such events even if they do not use the metro.

Moreover, the vicinity of the Peenya station, adjoining industrial zone, has had a dusty and dim image, but a student who took part in Art in Transit walked around the neighborhood of Peenya and photographed the colors of the area. From the photographs, she took out the vibrant hues of the area, and set up an art object in the station using them. The object helps passers-by feel at ease. Furthermore, BMRCL uses the space under the elevated MG Road station as small theater, gallery and children's park. BMRCL turned the space, which had been a walkway before the metro construction, into new space for the community.

Republic of Ghana

Technical Cooperation

The Project for Improvement of Maternal and Neonatal Health Services Utilising CHPS System in the Upper West Region

Human resources development, institution-building, and community participation for improving maternal and neonatal health services

External Evaluator: Mayumi Hamada, Foundation for Advanced Studies on International Development

Overall	
B	
Effectiveness and Impact	3
Relevance	3
Efficiency	2
Sustainability	2

Project Description

Total cost: 1,100 million yen

Period of cooperation: September 2011 – September 2016

Partner country's implementing organizations:
Ghana Health Services (hereinafter referred to as GHS)

The number of experts dispatched:
25 persons

The number of technical training participants:
21 persons (6 for Country-focused Training in Japan, 6 for Country-focused/Thematic Training, 8 for Group Training, 1 for Training Program for Young Leaders)

Main equipment provided:
Equipment for the project office and training (PC, photocopy machine, cabinets, chairs, generators, flip chart stand), car, etc.

Overall Goal:
Maternal and Neonatal Health (MNH) services in Upper West Region (UWR) is continuously improved

Project Purpose:
Improve MNH services utilizing Community-based Health Planning and Services (CHPS) system in UWR

Output:
1. Capacity building on MNH services improved
2. Systems for MNH services strengthened
3. Community mobilization and support systems on MNH strengthened

A CHPS Compound at the community where maternal and neonatal health services are provided

Effects of Project Implementation (Effectiveness, Impact)

As for the achievement status of the project purpose, i.e., improvement of maternal and neonatal health services, at the time of project completion, the achievement of three indicators (proportion of those receiving antenatal care (ANC), skilled delivery, and postnatal care (PNC)) out of four was high. Concerning the remaining one indicator (coverage and correct use of partograph, which shows the progress of delivery, as well as postpartum observation sheet), the correct use achieved the target, although the coverage did not. Hence, the achievement status of the project purpose is assessed to be high. With regards to the overall goal, three indicators out of four (concerning the proportion of those receiving ANC, PNC, skilled delivery and so on) have been achieved, showing the project effects almost as planned. In addition, the achievement status of the project purpose remained to be high from the project completion to the time of ex-post evaluation, except for Indicator 4 concerning partograph and postpartum observation sheet. It is assumed to be brought by the continued achievement of the project outputs. As for other indirect effects, the project is regarded to have contributed to the improvement of maternal mortality ratio to some extent, owing to continued achievement of the project outputs, the project purpose, and complementary effects by other projects. Thus, the project's effectiveness and impact are high.

Relevance

The direction of the project, which is aimed at improving MNH services by utilizing CHPS, sufficiently corresponds with Ghana's development policies and development needs as well as with Japanese aid policy. Thus, relevance of the project is high.

Efficiency

The project costs and the project period exceeded the plan, due to frequent replacement and short length of stays of Japanese experts. On the other hand, the fields and quality of the Japanese experts were appropriate, and dispatch of them is regarded to have contributed to the achievement of the outputs. Therefore, the project has fair efficiency.

Sustainability

As the direction to promote CHPS is maintained, sustainability in terms of policy and political commitment is high. The sustainability from the institutional/organizational and technical aspects are assessed high. On the other hand, financial sustainability regarding training is high because of donors including the Phase 3 project, which succeeded this project, but low for the implementing organization. Thus, some minor problems have been observed in terms of financial aspect. Therefore, the sustainability of the project's effects is fair.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be satisfactory.

As for the recommendations, it is desired that District Health Management Teams (DHMTs) at UWR continue to regularly monitor the situation at the Health Centers and CHPS, which offer MNH services, on the reprinting of partograph forms, postpartum observation sheets, and so on to avoid a situation in which recording information is not possible due to a shortage of forms. Regional Health Management Team (RHMT) is asked to continuously receive regular reporting on monitoring results from DHMTs. When necessary, it should try to solve the problem.

Concerning the lessons learned, firstly, in a technical cooperation project which conducts a wide variety of trainings, and the trainees' application of knowledge or skills gained through the training for their workplaces is essential for achieving the project purpose, it is important for the project team to conduct on-site monitoring, i.e., visiting the workplace for actually observing the utilization status of knowledge, instead of just compiling the data and reports received from those who are concerned. Secondly, in planning a technical cooperation project, for which support of construction of infrastructure or Japan Overseas Cooperation Volunteers (JOCV) dispatch for detailed assistance to local government is beneficial, it is important to have a program mindset, clarify a program objective, and formulate a program. Then, JICA can plan projects based on them.

Training of trainers for seminars at the communities

Table Achievement of Project Purpose by Project's Completion

Project Purpose		Indicator	Achievement	Achievement Level
Improve maternal and neonatal health (MNH) services utilizing CHPS system in UWR. (High)	1	Proportion of clients receiving first trimester antenatal care is increased to 60%	56.9% (DHIMS2 data) (→94.8% of the target value) (Reference: 77.5% by the Endline Survey data)	High
	2	Proportion of clients receiving skilled delivery in UW Region is increased to 70%.	62% (institutional delivery, DHIMS2 data) (→88.6% of the target value) (Reference: 83.4% by the Endline Survey data (skilled delivery))	High
	3	Proportion of clients receiving first PNC within 48 hours is increased to 75% and second PNC within 7 days after delivery is increased to 75%	1st PNC: 93.4% (DHIMS2 data) (Reference: 77.5% by the Endline Survey data) 2nd PNC: 76.2% (The Endline Survey data. No DHIMS2 data)	High
	4	Coverage and correct use of Partograph and postpartum observation sheet for the first 6 hours amongst applicable cases at SDHT improve to 90% (coverage) and 80% (correct use)	The achievement is shown below.	Medium

(unit: %)

	Coverage	Correct Use
Partograph	90	80
Postpartum Observation Sheet	90	80

(unit: %)

	Coverage	Correct Use
Partograph	82	85
Postpartum Observation Sheet	51	85

Source : Project Completion Report P.14-17. There was a gap between the actual values from DHIMS2 and those from the end-line survey. Considering the representativeness of the collected data, the data from DHIMS2–the national information system–were used as the primary data for this analysis.
Note 1 : The indication at the Achievement Level means as follows.
High (80% of or above the target level) Medium (50% ~ 79%) Low (Less than 50%)
Note 2 : DHIMS2 stands for District Health Information Management System 2.
Note 3 : SDHT stands for Sub-District Health Team.

Key Point of Evaluation — On-site monitoring to enhance training effects

This project aimed to improve MNH services by achieving three project outputs, i.e., human resources development, institution-building, and community participation. Varieties of training were conducted to wide varieties of people related to all project outputs. For this type of project, it is essential that the trainees actually utilize the knowledge they gained at the training at their medical workplace and so on in its proper context. In general, you can expect enhancement of trainees' knowledge to some extent, if you conduct appropriate training. However, whether or not the knowledge gained at the training is utilized at the workplace is influenced by varieties of factors, such as working environment, way of thinking of trainees' bosses, the continuance of trainees' motivation after training and so on. On the other hand, the target area of the project is the whole UWR, which is vast with harsh natural environment. In addition, the project targeted all the levels of its health administration, i.e., region, districts and sub-districts. Under these circumstances, the project team often visited the project sites in order to monitor the utilization status of the knowledge at the workplace. At the time of ex-post evaluation, counterparts including the trainees and their bosses at the project sites strongly recognized that "JICA would come to the site after the training to confirm whether the trainees actually utilize the knowledge they gained at the training." This recognition led to raising consciousness and creating tense relations in a good sense of the medical workers who participated in the training, that promoted the applicaction of the gained knowledge and skills for their duties. This eventually resulted in improvement of the performance at the project sites. This is regarded as a good example of a case that on-site monitoring is meaningful for enhancing project effects, although it takes time and manpower.

Bangladesh

ODA Loan

Telecommunications Network Development Project

Contributing to the development of information infrastructure by flexibly responding to changes in the surrounding environment, such as the communication technology innovations

External Evaluator: Katsuya Tokuda, Ernst & Young ShinNihon LLC

Overall	
C	
Effectiveness and Impact	2
Relevance	3
Efficiency	2
Sustainability	2

Project Description

Loan amount/Disbursed amount:
8,040 million yen / 5,076 million yen

Loan agreement: June, 2006

Terms and conditions:
Interest Rate: 0.01%
Repayment Period (Grace Period): 40 years (10 years)
Conditions for Procurement: General untied

Final disbursement date: June, 2015

Excecuting agency:
Bangladesh Telecommunications Company Ltd; BTCL

Overall Goal:
Contributing to the economic growth of Bangladesh through private sector development and facilitation of information flow

Project Purpose:
Improving the quantity and quality of telecommunications services in major cities of Bangladesh and their surrounding areas

Output:
Developing interconnection facilities for mobile and fixed telephone networks, international exchange equipment, and broadband access facilities

Interface device

Effects of Project Impelementation (Effectiveness, Impact)

The Project developed telecommunications infrastructure, such as interconnection facilities for mobile and fixed telephone networks, international exchange systems, and broadband access facilities. Thanks to the implementation of the Project, the internet capacity and number of lines used have increased, and a stable supply of high-quality telecommunications infrastructure and the smooth flow of information have been achieved to a certain extent.

The interviews with the beneficiaries of the Project have confirmed that the installation of inexpensive, stable, and high-speed Internet-related equipment have had an impact in facilitating the smooth information flow of the business in the broadcasting industry which needs to download and upload data-heavy files and content, such as videos in addition to promoting the telecommunications industry itself. On the other hand, the number of actual connections to the capacity of the broadband services expanded by the Project is limited, leaving some room for improvement in the effectiveness of the Project.

Therefore, effectiveness and impacts of the Project are fair.

Relevance

Both at the time of project appraisal and the ex-post evaluation, the expansion and modernization of the telecommunications network were and are considered to play a role in the country's economic growth and poverty reduction. Changes in development needs, occasioned by technological innovations have been addressed by flexible adjustments in the scope of the Project.

Based on the above, its relevance is high.

Efficiency

The main outputs of the Project have been largely achieved for the project objectives, except for those parts that required changes in the scope because of the changes in development needs and the delays in the commencement of the Project due to delays in the corporatization of BTTB. Although the project cost was within the plan (62%), the project period exceeded the plan (190%) because of delays in the commencement of the Project due to delays in the corporatization of BTTB as a precondition for the effectuation of the L/A.

Based on the above, efficiency of the Project is fair.

Sustainability

While the facilities installed by the Project are generally well-maintained and have been properly operated, minor problems were identified in terms of financial and institutional aspects, such as a lack of established maintenance standards and rules, as well as the shortage of management-level workforce, required for the appropriate operation and maintenance of the facilities.

Therefore, sustainability of the Project is fair. .

Conclusion, Lessons Learned and Recommendations

In light of the above, this Project is evaluated to be partially satisfactory. As lessons learned, there are important points to consider in planning projects with corporatzation as a precondition for the effectuation of the L/A, as well as understanding the uniqueness of projects in the telecommunications sector. In this Project, the delays in corporatization as a precondition for the effectuation of the L/A and the subsequent delays in the commencement of the Project resulted in changes in the Project scope, while the precondition also had a significant impact on promoting reforms in the telecommunications sector. Therefore, it was necessary to consider all the risks posed by corporatization and the countermeasures to implement. Moreover, technological innovations take place faster in the telecommunications sector than in other sectors, and existing telecommunications technologies often become obsolete easily, hence when implementing a project in the telecommunications sector, in particular, the project must be shortened through rapid planning and implementation. When a project is to be set for a long period of time, both parties should agree, in the project appraisal, to review and adjust the plan flexibly with the status observed in the interim monitoring.

There are three recommendations to the Executing Agency: development of training mechanisms and systems to resolve the shortage of management -level workforce, clarification of maintenance standards and rules for sustainable operation of installed equipment, and strengthening of the marketing department and planning strategies to resolve the current situation that the number of actual connections to the capacity of the broadband services is limited due to the shortage of subscribers.

Broadband access facilities used by customers

Supply-side broadband access facilities

Table Status of achievement of outputs

		2013	2017	2019
		Before Installation (Baseline)	1 year after completion	3 years after completion
Fixed line phone	Capacity (millions)	1.47	1.46	1.63
	Actual subscribers (millions)	0.90	0.66	0.55
ADSL (Low speed Internet)	Capacity (number of lines)	47,000	89,000	89,000
	Actual subscribers	13,000	20,000	15,000
GPON (High speed Internet)	Capacity (number of lines)	N/A	110,000	110,000
	Actual subscribers	N/A	212	2,791
International phone call	Incoming calls (10 million minutes)	207.56	494.4	279.41
	Outgoing calls (10 million minutes)	3.64	2.32	1.23

Key Point of Evaluation — Flexible support in line with the local development needs based on a customer-centric approach

The Project is characterized by the following three features: delays in the commencement of the Project due to delays in corporatization, significant changes in the environment surrounding the Project including the development needs due to technological innovations in the telecommunications sector during that period, and the flexible adjustments in the scope of the Project. Specifically, at the time of the appraisal, the main objective of the Project was to expand fixed, mobile, and international telephone lines, but the significant decrease in demand for fixed-line phones, spread of mobile phones, and the sharp increase in demand for broadband line usage occurred through the technological innovations by the time corporatization process was completed. This Project is an example that demonstrated a certain level of effectiveness by flexibly changing the scope of the plan in line with the shifts in the development needs to meet the actual needs during the project implementation.

Furthermore, in this Project, there were delays in the commencement of the Project due to delays in corporatization as a precondition of the project implementation, which also resulted in changes in the scope of the Project. Thus, it was necessary to identify the risks that could arise due to the corporatization and to sufficiently consider the countermeasures to reduce or avoid them during the planning phase.

Republic of Kenya

Technical Cooperation

Sustainable Smallholder Irrigation Development and Management in Semi-Arid Lands Project

Strengthening the resilience to frequent droughts through participatory smallholder irrigation development

External Evaluator: Ayako Nomoto, International Development Center of Japan Inc.

Overall	
C	
Effectiveness and Impact	2
Relevance	3
Efficiency	2
Sustainability	2

Project Description

Total cost: 1,132 million yen

Period of cooperation: August 2012 – June 2016

Partner country's implementing organizations:
Ministry of Water & Sanitation and Irrigation, Ministry of Agriculture, and county governments where the pilot sites are located.
*In Kenya, devolution was introduced in 2013 with the new constitution enacted in 2010, and the country was divided into 47 local governments (counties).

The number of experts dispatched: 12 persons

The number of technical training participants: None

Main equipment provided:
Construction materials, construction equipment, and machines, equipment for training, vehicles, surveying equipment, GPS, and others.

Overall Goal:
Expected utilization of the proposed plan: Improved SIDEMAN (Sustainable Smallholder Irrigation Development and Management) model* is approved as a model for smallholder irrigation development and applied in Kenya.
*The model means participatory smallholder irrigation development management practices implemented following the participatory irrigation project guideline, IWUA framework, and staff training master plan.
Impact 1 (Expected goals through the proposed plan): Increase in the number of smallholder irrigation schemes in semi-arid lands using the proposed plan in this project.
Impact 2: The effectiveness of the SIDEMAN model is verified (stable irrigation water supply, improved farming technology, increased crop production, increased yield, and crop diversification at the pilot sites).

Project Purpose:
No Project Purpose was set for this project.
(As this project is a Technical Cooperation for Development Planning, it is not mandatory to set Project Purpose. This is because producing the outputs of the master plan, feasibility study, and others is generally a goal to be achieved within the project period.)

Output:
1. SIDEMAN model is improved.
2. Pilot projects are implemented.

An intake weir constructed by the project and irrigation water users association members

Effects of Project Implementation (Effectiveness, Impact)

This project was a Technical Cooperation for Development Planning to research how to apply a capacity development model for strengthening resilience to droughts to semi-arid lands.

At the completion of the project, a draft guideline for the model was developed, and the capacity of Irrigation Water Users Associations (IWUA) and farmers at the pilot sites (13 sites in total) was strengthened; however, the outputs were partially achieved because some of the smallholder irrigation facilities have not been completed (6 sites).

"Expected utilization of the proposed plan" to be achieved after the completion of the project was partially achieved, the guideline has not yet been formally approved; however, the revised guideline based on the experience of the project will be reflected in the Irrigation Regulation (2020), which was under development at the time of the ex-post evaluation. New smallholder irrigation development as an " Expected goals through the proposed plan" could not be verified because the model has not been formally approved.

As for the effects at the pilot sites, the irrigated area and the number of beneficiaries in the 6 irrigated sites where irrigation took place were 51% and 68% of the planned area, respectively, which was partially achieved.

Besides, stable and efficient distribution of water, increase in cultivated area and production, and diversification of crops were confirmed. Further, positive impacts were observed in terms of (1) increased agriculture revenue, farm income, and savings, (2) improved nutrition, (3) improved quality of life, (4) access to education, (5) expansion of farmland, and increased investment in agriculture. On the other hand, sites, where irrigated agriculture was not practiced, did not have the expected impacts.

Therefore, the effectiveness/impact of the project are fair.

Relevance

The relevance of the project is high. The project was consistent with the development plan that aimed at increasing the irrigated areas to ease Kenya's dependence on rain-fed agriculture. Also, the need for irrigation development was high as the actual irrigated area was small out of the total irrigable area, and the growth rate of the agricultural sector was affected by the lack of rainfall. This project was also in line with Japan's ODA policy to Kenya.

Efficiency

Outputs of this project were partially achieved, as the draft guideline based on the project model was prepared; however, the pilot projects were partially completed. Both the project cost and project period exceeded the plan due to the delays in the procurement process, changes in the project scope, and the delays in the construction in the part of the smallholder irrigation facility development.

Therefore, the efficiency of the project is fair.

Sustainability

Although policy and political commitment for the sustainability of project effects is assured, there are some challenges in the institutional/organizational, technical, and financial aspects such as the insufficient number of staff at the county level, weak set up for the technical transfer and upgrade, and insufficient budget for the irrigation development.

Therefore, the sustainability of the project effects is fair.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be partially satisfactory.

As for recommendations, the Kenyan side is recommended to consider taking measures for the sites where irrigation facilities were not completed/functional, and also JICA is recommended to follow-up the situation.

With regards to lessons learned, because the irrigation facility development works were not completed at the time of project completion and that some of the expected effects/impacts were not produced as a result, it is necessary to determine the project scope and conduct an appropriate feasibility study at the time of project formation to avoid incomplete works when infrastructure development is part of a project.

Besides, during the implementation of this project, devolution progressed, and the overall development of small-scale irrigation became the responsibility of the county governments, so the county governments were also involved in this project. However, the responsibility for the remaining works after the completion of the project was not clearly decided between the central government and the county governments, and as a result, the remaining works have not been carried out.

If it was envisaged that the national government carries out the remaining works after the completion of the project, there was a need for greater involvement of the national government in the design and construction supervision phase to ensure the continuity of the remaining works and its responsibility. In that case, it is necessary to decide the feasible scale of the project (the number of sites), taking into account the implementation capacity of the counterpart country and the duration of the project.

Interviewing IWUA members

Canal developed by the project

Table 1 Status of achievement of outputs

Output	Indicator	Result
1. SIDEMAN model is improved.	–	Achieved: A draft guideline was developed upon completion of the project.
2. Pilot projects are implemented.	1. The number of smallholder irrigation facilities constructed in the pilot projects	Not achieved: Of the 13 sites in the pilot projects, eight sites had work remaining at the time of completion of the project. Of these, the remaining work on six sites had not been carried out at the time of the ex-post evaluation.
	2. Capacity enhancement of O&M of irrigation facilities and on farming technology	Achieved: Through the training, the farmers in the pilot sites gained knowledge on the management of the Irrigation Water Users Association (IWUA), which is necessary to strengthen resilience, and developed awareness on market-oriented farm management.
	3. Strengthening of the capacity of Ministry of Water and Irrigation staff for participatory irrigation development	Achieved: The workshops and training were conducted primarily for the Sub-County Irrigation Officer (SCIO) and Sub-County Agriculture Officer (SCAO) for the eight counties to which the pilot sites belonged. The content of capacity-building includes feasibility studies and design training, Training of Trainers (TOT) on IWUA capacity building training, contract management training, training of SCAOs on farming techniques, and others.

Table 2 Status of achievement of Overall Goal

Overall Goal	Indicator	Result
Expected utilization of the proposed plan Improved SIDEMAN model is approved as a model for smallholder irrigation development and applied in Kenya.	1.Status of approval of the model by the Government of Kenya	Partially achieved - The guideline developed under a preceding project was approved in August 2003 and distributed and used nationally. - The guideline was subsequently revised (most recently in 2018); however, they have not been approved or distributed because they are subject to the public participation process for approval and distribution as required by the Constitution of Kenya. In revising this guideline, the experiences and issues of the project have been incorporated.
	2.Status of the utilization of the model by the Government of Kenya	Partially achieved -The 2003 Guideline has been distributed throughout the country and is being well utilized. Besides, the guideline has significantly influenced policy. - At the county government level in the pilot sites, the model used in this project has been applied in smallholder irrigation schemes when transferring technology to farmers.
Impact 1 (Expected goals through the proposed plan) Increase in the number of smallholder irrigation schemes in semi-arid lands using the proposed plan in this project.	1.The number of smallholder irrigation schemes utilizing the proposed plan in this project.	Not verified -Verification is not possible because the model developed in this project has not been formally approved. - At the county level, where the pilot sites are located, interviews indicate that Kilifi County has used the experience of the project in 10 new irrigation schemes since the implementation of the project. The irrigated area is estimated to be between 1,000 and 3,000 acres.
	2.Irrigated area using the proposed plan in this project.	
Impact 2 The effectiveness of the SIDEMAN model is verified (stable irrigation water supply, improved farming technology, increased crop production, increased yield, and crop diversification at the pilot sites).	1.Irrigated area and the number of beneficiary farmers (the number of Irrigation Water Users Associations (IWUA) members who use the irrigation water)	Partially achieved The average of the irrigated area and the number of beneficiary farmers in the pilot sites (13 sites) are 26% and 31%, respectively (51% and 68%, respectively, excluding the 6 sites with 0% irrigated area).
	2.Technologies introduced	Partially achieved According to the interviews with farmers, they continue to develop a cropping calendar and conduct market research.
	3.Cultivated area, production, the yield of main crops, and diversification of crops	Partially achieved According to the interviews with the farmers, there has been an increase in the cultivated area and production, and diversification of crops (before the project, maize and cassava were the main products of rain-fed agriculture; however, after the project, okra, tomatoes, spinach, and kale have been grown).

Key Point of Evaluation **Impacts on irrigation development areas and incompleted areas**

During the field visits for the ex-post evaluation, group interviews were conducted with approximately 100 members of IWUAs at pilot sites. In all of the sites where irrigation facilities were in operation, the following impacts were reported: (1) increased agricultural revenue, farm income, and savings from year-round production and production of high value-added crops; (2) improved food security and nutrition (especially for children); (3) improved quality of life such as upgrades of housing from mud-walled houses to permanent houses, and the ability to purchase vehicles; (4) ability to pay school fees, enabling children to go to school and receive a better education at private schools, and (5) expansion of farmland and investment in agriculture. However, in the sites where irrigated agriculture was not conducted due to inadequate irrigation facilities, the impact of incomplete infrastructure development on the project effects was significant, as the respondents expressed disappointment that the expected results were not achieved and anxiety about the uncertain future of the facility development.

In this regard, the lesson learned drawn is that in an irrigation project where infrastructure development is included in the scope, it is important to ensure that the construction is completed during the project implementation or to pay attention to the institutional set up of the post-completion of Japan' support for the case of incomplete construction.

Examples of Applying Lessons Learned from Past Projects

Application of Lessons Learned from Past Similar Projects to Ongoing and Future Projects

In order to address increasingly complicated development issues, JICA needs to apply lessons learned from its past projects to improve the effectiveness and efficiency of project implementation. With this recognition, JICA attaches great importance to the application of lessons learned from past project experiences and evaluation results to ongoing and future similar projects to improve the quality of actions in the PDCA cycle.

Below are actual examples of either implementing projects based on lessons learned from past projects or drawing useful lessons to improve ongoing and future similar projects, selected from among external evaluation results.

▶ Projects providing potentially useful lessons for ongoing and future similar projects

National Highway No. 1 Bypass Road Construction Project, National Highway No. 1 Bypass Road Construction Project (II), Cuu Long (Can Tho) Bridge Construction Project, and Cuu Long (Can Tho) Bridge Construction Project (II) in Viet Nam (ODA Loan)

These projects aimed to improve the efficiency of logistics and contribute to socioeconomic development in the Mekong Delta region by constructing the Can Tho Bridge crossing a tributary of Mekong River and related approach roads. During this construction, there was a tragic accident where tentative piers collapsed and caused the death of 54 people (as reported in a press release on November 12, 2007 by the Ministry of Foreign Affairs in Japan). Although the infrastructure completed after the accident was utilized very much and rated as "B" on the four-level overall rating scale of JICA's post-evaluation system, JICA took this accident extremely seriously and took the following recurrence prevention measures.

After the collapse of the Can Tho Bridge, the Japanese Ministry of Foreign Affairs held seven sessions of Special Committee for the prevention of repetition of accidents of Can Tho bridge to seek input from experts and issued "Proposals to prevent the repetition of the accidents and points of improvement of project supervision of ODA Loans" in July 2008. Based on these proposals, JICA has continued its unremitting efforts to promote construction safety for ODA Loan projects. First of all, JICA set up a Safety Measures Technical Advisory Group for ODA Loan Projects, a consultative group on construction safety promotion, to report on construction accidents and analyze their trends as well as to discuss how to promote construction safety. Based on their discussions, JICA published "Construction Safety Policy for ODA Projects Involving Facility Construction, Etc." under the name of its President in March 2015 to articulate its basic policy on construction safety and assign itself the role of spreading and establishing the safety culture of Japan. Under this policy, JICA senior advisors with knowledge and experience in construction works validate the construction safety measures put in place for ongoing projects. In addition, "JICA Rules on Measures against Persons Engaged in Fraudulent Practices, Etc. in Projects of ODA Loan and Grant Aid" were revised to enable JICA to take measures against contractors whose improper safety management causes injury or death of a person or property damage. Moreover, the General Terms and Conditions for both ODA Loans and Grants were revised to require the governments and executing agencies of partner countries to take due diligence to ensure construction safety during their project implementation. The Procurement Guidelines for both ODA Loans and Grants were also revised to promote construction safety promotion by requiring the governments of developing countries engaged in project implementation to take an active part in safety management. Furthermore, "The Guidance for the Management of Safety for Construction Works in Japanese ODA Projects" was published in September 2014 to specify safety management procedures for contractors and has been widely used as safety requirements for Japanese financial assistance projects. In February 2021, "JICA Standard Safety Specification" (JSSS), a supplement to the Conditions of Contract for Construction published by the International Federation of Consulting Engineers (FIDIC) and referred to for ODA Loans, was issued in February 2021 to further promote construction safety for ODA Loan projects.

The lessons learned from the ex-post evaluation results of these projects also include the importance of monitoring the quality of tentative structures (e.g. tentative piers) to prevent similar accidents from occurring. More specifically, it is recommended that support should be provided to ensure that safety management measures will be taken in accordance with the above-mentioned "Guidance on security control of ODA construction works" and other requirements to prevent accidents from happening in similar ODA Loan projects. Thus, the lessons learned from the tragic accident are used to reinforce the principle of safety first in cooperation project management in order to prevent serious accidents from occurring.

▶ Project using lessons learned from past similar projects

The Project for National Single Window and Customs Modernization by Introducing Automated Cargo Clearance System in Myanmar (Grant Aid)

This project was implemented to establish the Myanmar Automated Cargo Clearance System (MACCS) and the Myanmar Customs Intelligence Database System (MCIS) to improve the efficiency of customs clearance procedures, thereby contributing to strengthening the financial basis through trade facilitation and customs revenue growth.

Before this project, JICA carried out a Grant Aid project to establish an IT system for customs clearance procedures in Viet Nam (The Project for E-Customs and National Single Window for Customs Modernization from 2012 to 2014), together with a Technical Cooperation project to support human resource and institutional development in the customs sector of Viet Nam.

The ex-post evaluation of this past project identified lessons learned, including the necessity of linking system development with the review and modification of operation procedures and relevant laws and regulations while checking them against the requirements of the system. In addition, the importance of pursuing environmental development in accordance with the progress of system establishment from design through development to testing, and the significance of estimating long-term costs and securing funding for system operation and maintenance were also discovered.

Therefore, this project was designed to ensure flexibility of inputs and activities as follows in order to facilitate the timely implementation of Technical Cooperation projects for human resource and institutional development in accordance with the progress of system development in the Grant Aid project. One of Technical Cooperation projects was continued for three and a half years after the MACCS and MCIS were put into operation to provide technical support, including establishing a support center to reduce confusion at the launch of the systems and solve other operational problems, modifying programs, extending the service area of the systems, and updating hardware equipment. Another characteristic of this project is that the executing agency in Myanmar secures the necessary funding by collecting service fees and making budget requests in a systematic manner based on the estimated operation and maintenance costs. Thus, these cooperation facilitated the smooth operation and maintenance of the MACCS and MCIS by the Myanmar Customs Department and increased the effectiveness and sustainability of the Grant Aid project.

As shown by this example, the project design based on lessons learned from past similar projects at the planning stage and the strategic use of other cooperation to follow up project outcomes are essential to ensuring the effectiveness and sustainability of projects.

Customs clearance at Yangon International Airport

▶ Project providing useful lessons for ongoing and future similar projects

Project on Capacity Building for the Customs Administrations of the Eastern African Region (Phase 2) (Technical Cooperation)

This project aimed to ensure effective and efficient customs operations by supporting the enhancement of customs activities and the development of human resources, especially to facilitate the introduction and operation of one-stop border posts (called OSBPs, referring to a model concept that makes the customs clearance process more efficient by shifting from a two-stop to a one-stop procedure) at land boarders in five countries in the East African region.

In the evaluation, we could find the project brought impacts, such as strengthening the capacity of customs officers and customs clearing and forwarding agents (CCFAs), speeding up customs clearance at target borders, contributing to the advancement of customs administration systems and frameworks in the East African Community member states by supporting the establishment of Regional Accreditation System for CCFAs. Two useful lessons learned were also identified from other indirect impacts. Firstly, it was suggested that economic considerations should be given to local residents as it was reported that the introduction of OSBPs had reduced waiting time at borders and resulted in sales declines at hotels and restaurants in the border areas and economic downturns in their surrounding communities. Therefore, it is suggested the development plan of OSBPs should include projections of changes in the lives and economic activities of local communities and the planning of alternative economic measures (e.g. encouraging the establishment of commercial facilities easy to access for those going through customs in the border areas) in order to reduce the above-mentioned negative impact.

Secondly, the evaluation results showed the importance of public awareness-raising activities. Although Joint Border Surveillance and Joint Water Surveillance were introduced, their deterrent effect on smuggling was limited because they only facilitated information sharing and did not lead to frequent joint patrolling. On the other hand, public relations activities in local communities (to increase public awareness of when no customs duties are collected at borders) made local people realize that they would not be taxed or would be taxed at a low rate if the value of goods cleared through OSBPs did not exceed a certain amount and discouraged them from smuggling. This indicates that proper awareness-raising activities may have a deterrent effect on smuggling. It is therefore suggested that support for the operation of OSBPs should include community awareness-raising activities, together with national border surveillance activities, on both sides of national borders to provide local people in border areas with correct knowledge about customs clearance.

A strategic approach to local communities can increase the impact of projects. While the African Union and its development agency, the African Union Development Agency - New Partnership for Africa's Development (AUDA-NEPAD), are planning to promote OSBPs in the African continent to facilitate regional integration, JICA also continues to support these activities to streamline the border-crossing process. Based on the lessons learned from this ex-post evaluation, JICA is promoting communication with local communities surrounding OSBPs to raise public awareness of OSBPs in its ongoing similar projects. Moreover, given that these lessons have been compiled in the OSBP Sourcebook to accumulate and provide the information required to establish and operate OSBPs around the African region, these insights are expected to be widely applied to new OSBPs.

Local people going through the border-crossing process instead of smuggling

Internal Evaluation: Highlights

▶ "Technical Cooperation in Strengthening the Backstopping Capacities for the DADP Planning and Implementation" and "the Project for Strengthening the Backstopping Capacities for the DADP Planning and Implementation under the ASDP Phase 2" in Tanzania Lessons Learned from the Ex-post Evaluation

Based on the Agriculture Sector Development Programme (ASDP), the Tanzanian and Japanese governments and other development partners established the ASDP Basket Fund. Since July 2006, the district governments have formulated the District Agricultural Development Plan (DADP) annually; using the Fund as a capital to promote agricultural sector development in the districts.

JICA implemented the Technical Cooperation in Strengthening the Backstopping Capacities for the DADP Planning and Implementation (hereinafter, "Phase 1 project") from March 2009 to March 2012 to support capacity development of the district government personnel through formulating guidelines and manuals to establish and manage the DADP progress. From October 2012 to June 2016, JICA successively implemented the Project to Strengthen the Backstopping Capacities for the DADP Planning and Implementation under the ASDP Phase 2 (hereinafter, "Phase 2 project") and supported efforts to further enhance the strategy of the DADP and promote agricultural economic growth by collaborating with private companies, NGOs and other private sector entities.

Planning and implementation of more strategic and effective DADP nationwide were expected by broadly applying the insights obtained from a pilot project implemented during the Phase 2 project to DADP's planning and monitoring system established in the Phase 1 project. During the ex-post evaluation, however, such expectations were not observed. This was because no budgets were allocated from the Fund due to the fact that the Tanzanian government and development partners did not agree with the budget allocation as well as the limited budget for districts to implement the DADP.

Meanwhile, positive impacts were observed in the pilot districts where technological dissemination was ongoing, utilizing manuals formulated during the Phase 2 project and technical transfer to newly assigned agricultural extension workers. Moreover, coffee seedlings were distributed to farmers by collaborating with private companies and the production of coffee, rice and horticulture increased thanks to the use of private investments. In Lushoto, one of the pilot districts, training manuals formulated in the Phase 2 project were utilized in a training component of an African Development Bank-funded project, strategically incorporating road improvements and market developments available for target farmers. Consequently, some target farmers of the Phase 2 project were able to ship their products more swiftly and economically via improved roads, representing development synergy with other resources. In terms of sustainability, although the lack of extension workers and other overseeing personnel remained an issue, efforts in pilot districts, such as utilizing funds of private companies and other donors, were observed despite a lack of funding and government budget.

Lastly, the field survey for this ex-post evaluation was originally scheduled for around April 2020. However, the COVID-19 pandemic meant movement was restricted in Tanzania, whereby namely, central government officers were temporarily prohibited from traveling outside their allocated region. Since the JICA Tanzanian office staff telecommuted, the survey was conducted remotely. The national staff of JICA Tanzania interviewed each stakeholder via email, phone and WhatsApp to process data confirmation and perform other tasks. Since January 2019, JICA has implemented the Project for Strengthening DADP Planning and Implementation capacity through Use of SHEP Approach (TANSHEP) as a project following that of Phase 2. After confirming with counterparts from central government and district offices several times by phone, the ex-post evaluation report could be compiled. Although some rural areas lack an Internet connection and phone reception and some district offices have unstable Internet connections, which preclude transmission of large files, some extension workers traveled to neighboring towns via motorbike taxi and used private Internet services to respond.

Close communication and confirmation with counterparts are key to the ex-post evaluation under the COVID-19 pandemic. With this ex-post evaluation work, JICA anticipates smoother communication with counterparts, which will help promote the TANSHEP project activities.

National staff overseeing evaluation in JICA Tanzania Office


Cropping calendar visualizing seasons of peak demand and cropping timing of target varieties


An extension worker in Lushoto District.

▶ Multi-beneficial measure for the mitigation of climate change in Vietnam and Indochina countries by development of biomass energy in Viet Nam
- Development, introduction and dissemination of advanced technologies via the SATREPS*1 project to solve issues in developing countries -

Since January 2018, the Vietnamese government has required the entire nation to meet the request of the Prime Minister to use petrol (E5) mixed with 5% bioethanol (BE) as an alternative to unleaded petrol, RON95. While moves to introduce petrol containing 10% bioethanol (E10) are under consideration, the government has also recommended to use diesel fuel mixed with 5% of biodiesel fuel (BDF). For BE, ethanol is produced at five locations nationwide at the 100,000-ton production level using starch extracted from cassava as a raw material. However, the country also imports BE for cost reasons.

The project aimed to come up with measures to mitigate climate change, environmental pollution, and poverty in Viet Nam and other Indochina countries by establishing cultivation, production and utilization of biomass energy cycle through (i) the development of oil materials for producing BDF, (ii) the development of a countermeasure technology for polluted soil and corresponding plantation techniques, (iii) the production of BDF from raw material oil with green technologies, (iv) the development of an environmental monitoring method for evaluating the impact of BDF utilization, and (v) the verification of the feasibility of the developed results in Viet Nam, thereby contributing to the promotion of the production and utilization of BDF.

In 2020, lockdowns were imposed in Hanoi, Ho Chi Minh and other major cities in Vietnam due to the COVID-19 pandemic. Despite the circumstances, the ex-post evaluation survey was successfully completed thanks to great efforts made by Vietnam National University (VNU) and other implementing agencies. The evaluator was unable to work in the office during the lockdown period, so the task of the ex-post evaluation had to be completed while telecommuting; interviewing the implementation agencies involved in this project via email, phone and other means of communication. Meanwhile, the survey period was extended, given that many complex and technical aspects of the project required in-person interviews and on-site visits to confirm the contents and correct information.

Since the completion of SATREPS in 2016 to date, VNU researchers have continued and extended various research to promote BDF production/utilization in collaboration with Japanese researchers; aiming to improve fuel production technologies developed during this project. For example, it emerged that Jatropha grows well on degraded lands in Quang Tri Province in the north-central region but would not flourish in the climate of northern Vietnam. Accordingly, the VNU researchers explored other oil-plants that would thrive in the northern region, such as Pongamia Pinnata.

To disseminate research outcomes developed under the project and optimize the social application effect achieved, consideration and time are still needed. Conversely, lessons learned included the realization that related organizations and JICA should consider ongoing advocacy support to help ensure the project's outputs are reflected in related central government policies. In addition, JICA is expected to further collaborate with the Ministry of Agriculture and Rural Development that is responsible for building up a plan for raw material plantation development to supply the biofuel production industry or the program of the Ministry of Industry and Trade, which oversees the promotion of biofuel use.


Vietnamese researchers working at a laboratory


Analytical equipment provided by the SATREPS project at VNU

*1: SATREPS: Science and Technology Research Partnership for Sustainable Development

Learnings from internal ex-post evaluation in the in-house internship program

JICA has an in-house internship program for its staff in order to assist them with their capacity building and autonomous career development and enhance their contribution to the organization and its programs. The Evaluation Department uses the in-house internship program to provide opportunities for young staff of project implementation departments to experience evaluation tasks and see a project from the perspective of an evaluator so that they can learn lessons they can apply to the formulation and management of Technical Cooperation, Grant Aid, and other projects they are responsible for at their own departments. Below is a report from a participant in the in-house internship program for FY2020.

Internship Report

Currently, I am assigned to Infrastructure Management Department, and in charge of several infrastructure projects in Asian, African and Central American regions. My responsibilities are mainly on project formulation and management. The in-house internship program of the Evaluation Department for FY2020 allowed me to participate as an investigator/evaluator in the internal evaluation of the "Project for Mangrove Rehabilitation Plan for Enhancement of Disaster Prevention in Ayeyawady Delta*1" (Grant Aid)in Myanmar.

[Conducting a remote study]

The internal ex-post evaluation in which I was involved as part of the in-house internship program did not include field visits due to the COVID-19 pandemic, so the evaluation was based on existing documentation and additional information provided by the Burmese implementing agency. The internal evaluation of this project was able to be conducted without field visits not only because sufficient local information was collected with support from the JICA Myanmar Office but especially because the Burmese implementing agency continued activities and kept records of them after the project ended. When making an evaluation, I carefully considered from different angles how to make an evidence-based, persuasive, and objective assessment with infinite information sources. I worked to make as reliable judgement as possible by having repeated discussions with the Myanmar Office and the Evaluation Department and checking the consistency of quantitative data and other information.

[Getting a perspective beyond that of an evaluator of individual projects]

As a program officer responsible for formulating and managing Technical Cooperation and Grant Aid Projects at my own department, I incorporated the perspective of a project manager into the evaluation and assessment. One of the main purposes of this project was to recover the mangrove forest that had been damaged by a devastating cyclone. In addition, the project's positioning in the forest sector of Myanmar and the project's maintenance mechanism in collaboration with local residents were key evaluation points. I was able to make a profound evaluation of this project by analyzing it from a bird's eye view of the target country and sector and examining the original plan, including the intention to collaborate with other projects and the maintenance plan after the completion of the project, from my own perspective. Moreover, as a program officer, I had known the important role of ex-post evaluation in learning lessons for other projects, so I worked to summarize the good practices of this project in a way that would facilitate their application to other projects.

[Applying lessons learned from the in-house internship program]

At first, when participating in the in-house internship program, I thought it was mainly intended to learn how to make an accurate assessment of a project with a specific evaluation framework. However, while analyzing a project not from the usual perspective of a project manager but from that of an evaluator, I learned to see a project from a broader point of view. For example, I learned the importance of setting appropriate targets and indicators and defining a reliable evaluation framework by taking into account the size and monitoring system of the project at the project planning stage. Moreover, my involvement in the ex-post evaluation of a project made me realize that it is possible to communicate with counterparts to collect relevant information and identify issues in the target country and sector after the project through ex-post evaluation. I feel that I learned the importance of paying attention not only to the activities to be implemented during the project but also to the continuity of activities after the project and the impact of the project on the entire sector. I believe these findings are helping me take a broader perspective when talking with various stakeholders involved in the projects I am in charge of at my own department. I will apply what I learned in the in-house internship program to my future work.

An activity at the project site

A cyclone shelter provided by the project

The in-house intern oversaw the ex-post evaluation of the project

*1: The ex-post evaluation result of the project has not been published yet. It will be available via the annual evaluation report of next year or later.

Difficulty and Ingenuity: Conducting Evaluation in the Time of COVID-19 Pandemic

Octavia Japan Co., Ltd. Kenichi Inazawa

Switching to a Remote Survey

The first field survey for the ex-post evaluation of two projects in Pakistan ("Indus Highway Construction Project (III)" and "Project for Improvement of Child Health Institute in Karachi") was initially scheduled for March 2020. With the spread of COVID-19, our international travel was cancelled. It was then decided that the evaluation would proceed with remote surveys.

Based on our experience, difficulty and ingenuity to conduct remote surveys is summarized below for future reference. As I had an opportunity to analyze the impact of COVID-19 in relation to the "Project for Improvement of Child Health Institute in Karachi," I would also like to share our experience at the end.

Remote Survey: Difficulty and Ingenuity

A Pakistani local consultant (hereinafter referred to as "LC") was recruited at the commencement of the evaluation study. After a series of teleconferences, LC and I decided to conduct the data collection, qualitative interviews and site inspections remotely from Japan by communicating with the LC. We thoroughly discussed the potential difficulties, work schedules and situations of the executing agencies. The executing agency of the "Indus Highway Construction Project (III)" increasingly advocated for its staff to work from home due to COVID-19. Therefore, it was difficult to see how we could manage the communication and correspondence. As for the "Project for Improvement of Child Health Institute in Karachi," all hospital staff were busy responding to the preventions of the infectious diseases. We were not sure if the remote survey would be possible. At times it even felt hopeless. LC and I first identified the key persons of the executing agencies while carefully grasping the status of COVID-19. Through the LC, we started by explaining to the executing agencies about the significance of JICA ex-post evaluation and their cooperation for the evaluation survey. I believe that explaining the significance and sorting out the situation "swiftly and carefully at the initial stage of the spread of infection" allowed us to establish an effective working relationship and mutual understanding.

As a way to proceed with the remote survey, we translated the summary reports required in the process of the evaluation work into the local language so that information was effectively shared among the three parties: Japanese evaluator, the LC and the executing agencies. We repeated the steps of sorting out, identifying missing data or information, checking with each other and adding new information in the process of evaluation analysis. Throughout the process, we carried out the information/data collection and evaluation analysis by carefully checking with each other to make sure there is clarity in all matters. As an evaluator, I tried to give thorough explanations at all times so as to obtain the necessary information and data. In order to maintain smooth working relationships, we had regular telephone communications through the LC. For the site inspections and qualitative survey (interviewing beneficiaries), I shared the viewpoints and important points to keep in mind with the LC. Unexpectedly, the site inspection of "Indus Highway Construction Project (III)" was conducted during the hottest time of the year (daytime temperature of 40 to 50 degrees Celsius). We couldn't obtain accurate information on the COVID-19 of the project areas. Since the society was in a confusing situation, it was difficult to contact and arrange interviews with the local governments and residents along the Indus Highway. As an evaluator, I tried to focus on the analysis of the situations remotely. The LC diligently carried out the survey, reported back and sought further instructions while taking maximum care for his and interviewees' safety. As a result, we could successfully conclude the interview survey as per our expectation.

Evaluation from a Different Perspective

"Project for Improvement of Child Health Institute in Karachi" was the ex-post evaluation of hospital facilities. As the survey was done remotely, there are some limitations. Nevertheless, I thought it would be meaningful to study an impact of COVID-19 on the project and how the project contributed to infectious disease control. After discussing with the LC, we decided to conduct interviews in this regard. Although it may have slightly deviated from the scope of the evaluation work, the interviews revealed some important facts. Many people of Karachi, Pakistan's largest city, lived in fear with the spread of COVID-19 and stagnant economy. In such circumstances, many parents of the patients (children) trusted and appreciated the Sindh Government Children Hospital for providing high-quality medical services. The survey also confirmed the presence of Japan's ODA support. In fact, the "impact" of the project was greater than what was initially expected in the time of COVID-19. It is possible that similar cases are found in other health care projects. From the viewpoint of capturing project's impacts, it is deemed meaningful to collect such cases and share the findings.

A local consultant conducting an interview following the instruction of the evaluator (at an interview with the Director of Highway Mobile Police in July 2020 during the field survey of the Indus Highway Project (III))

Medical staff ensuring citizens are well-informed about how to prevent COVID-19 infection (Project for Improvement of Child Health Institute in Karachi in July 2020)

Ex-post Evaluations of Private-Sector Investment Finance Projects

–To Support Private Sector-led Development Projects–

As the role of the private sector has recently become increasingly important in facilitating high-quality, sustainable economic growth in developing countries, JICA, as well as international agencies and Western donors, is boosting support for the private sector. An example is Private-Sector Investment Finance, a program that finances or invests in projects carried out by private companies in developing countries to stimulate economic activities and improve the quality of people's life there.

Since October 2012, when it was decided to resume the Private-Sector Investment Finance program in full swing, 52 projects (31 financing and 21 investment projects) have been approved, reaching 17 countries and four regions (as of April 2020). Going forward, it will be essential to conduct ex-post evaluations of completed projects to assess their outcomes.

The evaluation approach to Private-Sector Investment Finance projects should take into account their features related to the process of financing and investing in private companies' projects and therefore differ from methods used for other development projects that directly support the governments of developing countries. In light of this, JICA conducted a study in FY2017 to compare and analyze how the International Finance Corporation (IFC), Asian Development Bank (ADB), European Bank for Reconstruction and Development (EBRD) and other international development financial institutions evaluated their private-sector investment and financing and consider how to develop a framework and a method to evaluate Private-Sector Investment Finance projects at the ex-post stage. As a result, JICA decided to apply the Five DAC Criteria (relevance, effectiveness, impact, efficiency, and sustainability) to Private-Sector Investment Finance projects, like other JICA projects, but also set additional evaluation criteria to assess the characteristic aspects of investment and financing projects, such as financial and non-financial additionality. Then, JICA conducted the ex-post evaluations of two Private-Sector Investment Finance projects (in Mongolia and Pakistan) on a trial basis in FY2018 and FY2019.

Ex-post evaluations of Private-Sector Investment Finance projects started on a full scale in FY2020. JICA will continue to conduct ex-ante and ex-post evaluations for each Private-Sector Investment Finance project and publish the evaluation results to fulfill its accountability, while respecting individual company's confidential information, and apply lessons learned to future project design and management.

Tsetsii Wind Farm Project in Mongolia (Finance)*1

In Mongolia, economic growth and urbanization boosted the demand for electricity and heat. Nevertheless, the country's power generation was much less than the installed capacity due to the aging of facilities. Because the domestic power generation did not meet the demand, electricity was imported from Russia to cover the shortage. While coal power plants generated approximately 90% of the country's electricity, the Government promoted the development and use of renewable energy resources to increase the share of renewable energy in the total electricity generation.

This project provided financing to Clean Energy Asia LLC (CEA), a Mongolian special purpose company jointly established by a Mongolian company called Newcom and SB Energy of the SoftBank Group to operate as an independent power producer, in order to assist the joint venture in the construction and operation of a wind power plant (with a total capacity of 50MW) in Tsogttsetsii District of Ömnögovi Province in southern Mongolia. It was assumed that CEA would supply electricity under a long-term power purchase agreement with the National Dispatching Center of Mongolia. JICA signed a project financing agreement with CEA in June 2016, expecting the project to improve the power supply and demand balance, ensure the stable supply of power, diversify energy sources, and promote the use of renewable energy resources to contribute to economic and social development in Mongolia.

The ex-post evaluation showed that this project had been consistent with the development policies and needs of Mongolia and the development cooperation policies of Japan. The evaluation for effectiveness and impact indicated that the operation and effect indicators had been achieved. it was also confirmed that this project was supplying electricity to the Central Power System, which was facing an increasing demand, and reducing CO2 emissions by increasing the share of wind power in the electricity mix in Mongolia, where coal accounted for a remarkably large share. The evaluation for efficiency demonstrated that neither costs nor time incurred by the project had exceeded the planned values. The evaluation for sustainability implied that, although financial sustainability was not high, there were no concerns about institutional or technical sustainability or maintenance mechanisms. The project is expected to continue to support the development of renewable energy resources and power infrastructure in Mongolia.

Tsetsii Wind Farm

Project location Map

Private Sector Investment Finance for the First MicroFinance Bank – Pakistan (Investment)*2

The Government of Pakistan emphasized the use of microfinance in its development policy to support low income populations and worked to develop and reform its legal system to promote and expand microfinance services. In this project, JICA invested in the First Microfinance Bank Ltd, Pakistan (FMFB-P) to expand and stabilize its business to promote access to financial services for the low income households in Pakistan. JICA signed an equity investment agreement with the FMFB-P in March 2012, expecting the project to stabilize the livelihoods of low income households in Pakistan.

The ex-post evaluation showed that this project had been consistent with the development policies and needs of Pakistan. The evaluation for effectiveness and impact indicated that key indicators, such as the number of clients financed and the amount of loans provided, had increased year-on-year and reached the target levels. The financial and economic analysis demonstrated that the FMFB-P had rapidly improved and expanded its business and enhanced its profitability and economic benefits though its return on invested capital (ROIC) remained lower than its weighted average cost of capital (WACC). The evaluation for efficiency was omitted because JICA was holding shares of the FMFB-P at the time of the ex-post evaluation. The sustainability of the project was rated satisfactory. The FMFB-P had a sufficient number of employees and a sound governance and risk management structure. The bank was working to improve its business efficiency, for example, by introducing a core banking system. The banks also had developed a human resource development system and had enhanced its financial stability.

FMFB-P's client running a private shop

FMFB-P's client engaged in livestock and dairy farming business

*1: The ex-post evaluation report of this project can be found on https://www2.jica.go.jp/en/evaluation/pdf/2018_0883_4_f.pdf
*2: The ex-post evaluation report of this project can be found on https://www2.jica.go.jp/en/evaluation/pdf/2018_1817_4_f.pdf

Monitoring and Evaluation Using SWIFT

- To Assess Changes Made by Projects Over Time Using Advanced ICT -

Although many projects were implemented in the past, quantitative data to answer the question of how much they actually contributed to reducing poverty and improving the quality of life were limited. However, Survey of Well-Being via Instant and Frequent Tracking (SWIFT), a new tool developed by the World Bank, allows us to monitor and measure the impact of projects on the income and poverty levels of beneficiaries in a cost-effective and user-friendly manner. JICA considers the use of SWIFT to monitor and evaluate its projects on a trial basis to determine the effectiveness of the tool.

What is SWIFT?

SWIFT*1 is an innovative tool developed by the World Bank to monitor and measure the impact of specific projects on the income and poverty levels of beneficiaries in a cost-effective and user-friendly manner. There has been established a calculation model using machine learning and artificial intelligence (AI) to derive poverty indicators from existing national and regional household income and expenditure surveys. SWIFT uses this model to design 10 to 15 truly effective questions to ask in surveys. Using digital technologies, such as smartphones and cloud services, SWIFT takes around 10 minutes to collect responses to the questions. SWIFT is also characterized by not using actual household expenditure data but using alternative variables correlated with that measures (e.g. the number of household members and the possession of refrigerators). Thus, SWIFT solves major problems with household income and expenditure surveys, such as high costs, time-consuming procedures, and complicated survey designs and analysis. SWIFT has been used for more than 90 projects in 52 countries by the World Bank Group.

How to use SWIFT in JICA projects

JICA also implements many projects intending to reduce poverty and improve the quality of life and has difficulty providing quantitative evidence on how much contribution they make to these issues. To begin with, it is essential to identify people in extreme poverty. Then, conducting reliable monitoring and evaluation is important. However, monitoring and evaluation, especially data collection, are highly costly. Therefore, SWIFT has caught JICA's attention for its potential of data collection in a cost-efficient and user-friendly way.

A survey using SWIFT

JICA is considering to use SWIFT in baseline and endline surveys of beneficiaries and non-beneficiaries for projects with the overall goal of increasing the income of the target group. SWIFT is expected to provide more accurate evidence for project evaluation by estimating the poverty rates of beneficiaries and non-beneficiaries before and after interventions and comparing their changes over time. Ordinarily, JICA relies on qualitative outcomes of its projects such as case studies. Conventional follow-up surveys of project beneficiaries can be too costly for its limited budget and quantitative data on income and expenditure from the statements of beneficiaries are not reliable because they are based on their memories and perceptions. Therefore, there are relatively high expectations that SWIFT may be able to collect data in a more efficient manner and properly measure the impact of interventions, which has been observed by the field practitioners for years.

JICA is currently using SWIFT on a trial basis, expecting that this innovative tool, practiced in a proper manner, can be widely applied to monitor and evaluate outcomes and achievements of JICA projects.

*1: Please refer to the World Bank's booklet for details of SWIFT.
https://www.ifc.org/wps/wcm/connect/64f11adb-ab01-4207-93cd-dd2cc51af16c/SWIFT-booklet-05.pdf?MOD=AJPERES&CVID=m9Or9Ia

Development Impact Assessment Using A Theory of Change

- To Visualize the Paths towards Outcomes -

JICA formulates project plans using a logical framework (logframe) called "Project Design Matrix (PDM)" to enhance the relevance of its interventions in development issues. A PDM can help make a logical project plan that describes how inputs will lead to the project purposes and then to the overall goal. However, as shown in Figure a PDM represents a simplified process of producing outcomes, and the omission of details in this simplification can make it difficult to see the whole picture of the process.

Recently, a theory of change (ToC) has become increasingly accepted in the development community, with increasing calls for measures to address more complicated issues and a more comprehensive monitoring/evaluation framework that takes into account environmental and contextual factors. A ToC is generally defined as a way to describe the set of assumptions that explain both the mini-steps that lead to the long-term goal and the connections between project activities and outcomes that occur at each step of the way. A ToC is often depicted in a diagram, generally containing multi-faceted elements, such as a series of changes that need to be made to solve the targeted problems, the assumptions that need to be met for the changes to occur, the conditions that need to be satisfied for the assumptions to be met, the interventions of the project, the timeframe for achieving the intended outcomes, to illustrate how the project's ultimate goal can be achieved. Moreover, a ToC diagram can provide a detailed, clear picture of the intentions as it is flexible and adaptable to its use, such as showing multiple pathways, indicating a hierarchical relationship where a single output leads to several different outcomes, or depicting the process of producing outcomes as a loop if necessary.

Figure PDM (Example)

Project Summary	Indicators	Means of Verification	Important Assumptions
Overall Goal The Project contributes to XXX.	To be achieved three years after the completion of the project 1. An outcome related to XXX is reflected in the annual plan of the Ministry of Agriculture. 2. A program related to XXX is implemented in more than X districts.	1. Relevant policy documents, interview surveys 2. New program reports	
Project Purpose The capacity of the Government of XXX is enhanced.	To be achieved by the completion of the project 1. An example of XXX is reflected in the annual plan of the Ministry of Agriculture. 2. The XXX Action Plan is developed.	1. Relevant policy documents, interview surveys 2. Plans regarding XXX	1. The necessary project personnel is assigned. 2. There is no drastic change to federal policies.
Outputs 1. Action plans are developed.	1-1. More than three action plans are developed for pilot districts. 1-2. More than three action plan formats are developed.	1-1. Action plans for pilot districts 1-2. Prototype action plans	
2. XXX is established.	2-1. XXX Guidelines are developed. 2-2. Human resources development guidelines are developed.	2-1. Reports on the guidelines 2-2. Reports on the guidelines	

Activities	Inputs		Important Assumptions
1-1. To survey the target area in the province. 1-2. To review the profiles of districts in the province. 2-1. To develop action plans to promote XXX and natural resource management across the province. 2-2. To develop a management system for XXX and natural resource management	Japanese Side 1. Japanese Experts (draft) 1-1. Chief Advisor 2. Provision of equipment	XXX Side 1. Counterpart personnel 1-1. Federal-level Project Director 1-2. Provincial-level Project Director	**Preconditions** The Federal Government maintains policies related to XXX. **Problems and Solutions**

In order to assess the impact of interventions on a wide range of issues, JICA is considering not only evaluating individual projects but also analyzing a set of projects addressing the same issue by setting medium- to long-term goals and assessing their overall impact . Using a ToC to depict the paths from inputs to outcomes can improve and enhance JICA's project management cycle. JICA also considers this framework as a useful tool in visualizing how to produce medium- and long-term outcomes and how to contribute to the SDGs. In light of these points, JICA has started a study for "Development Impact Assessment Using Theory of Change" to get insights on how to use a ToC effectively in its project management process.

The study team has reviewed academic literature, interviewed major development partners that are using a ToC approach, such as the World Bank, USAID, DFID, GIZ, 3ie, IPA, UNICEF, and UNFPA, to gather detailed information on their use and views of the approach, and organized and compared the collected information.

This study also focuses on some of the maternal and child health handbook projects and water supply projects carried out by JICA as case studies to validate the appropriateness of the intended ToC based on existing evidence and data gathered through field surveys and to retroactively assess whether the expected outcomes were produced as assumed in the ToC.

These analysis results will be used to derive recommendations on how JICA can apply a ToC approach to visualize the process of producing outcomes (The study report will be finalized at the end of July 2021). Then, these recommendations will be reviewed by JICA staff to consider how to internalize the approach, not only in individual projects but also in a set of projects, to visualize and accurately assess their medium- to long- term development impacts.

Thematic Evaluation Efforts

- Cross-sectoral Evaluation and Analysis of JICA's Cooperation -

JICA conducts not only individual project evaluations but also thematic evaluations on specific subjects, such as regions, issues, sectors, and methodologies. Through thematic evaluations, JICA conducts various studies, such as identifying common trends and problems related to a particular issue, classifying cooperation types through a comprehensive analysis of projects to extract patterns and lessons, and reviewing evaluation methods to develop new evaluation approaches. The following paragraphs describe four ongoing thematic evaluations.

Transversal Analysis of Evaluation Results to Extract Practical *Knowledge Lessons* in the Rural Water Supply Sector

JICA extracts and accumulates lessons from ex-post evaluations conducted as part of the PDCA cycle. In addition, JICA incorporates many lessons learned from individual project evaluations every year into knowledge lessons*1 by reviewing and classifying sector-specific lessons, further analyzing them, and adapting them to promote their application.

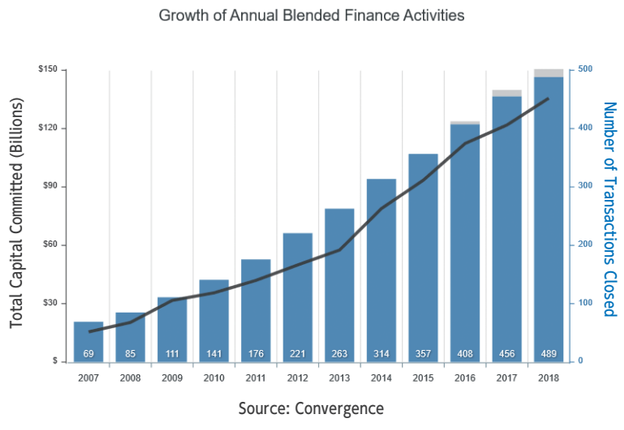
The theme of the year is selected depending on the accumulated number of lessons learned. This year, the rural water supply sector was selected as it had many good practices. A review of lessons learned from past projects in this sector reconfirms that special attention should be paid to the following two issues: (1) challanges in the operation and maintenance of water supply facilities by community associations and (2) challanges in procurements of spare parts for water supply facilities. The review also indicates (3) the additional need to identify the benefits delivered by each water supply project to women in the target area. Some ex-post evaluations confirmed the participation of women in society but merely considered it as an impact; therefore, the review results suggest that each ex-post evaluation should include a detailed classification and analysis of the benefits delivered by the project to women in order to understand how it actually affected women.

Based on these findings, this study will continue to conduct a detailed analysis of the above three issues, in addition to the classification of lessons learned. More specifically, this study will conduct an analysis of key factors for the successful operation and maintenance of rural water supply systems by community associations, a theoretical analysis of the impact on women, and a classification of issues with procurements of spare parts. The study team is now developing an analytical framework and will further deepen their analysis to promote the application of knowledge lessons in the future.

Examination of Evaluation Methods for Mobilization of Private Financing

As official development assistance (ODA) alone can no longer meet the demand for development financing to address diverse development issues including SDGs, it has become increasingly important to mobilize private funds. While donors are expected to play a catalytic role in mobilizing additional financing from private sources for development, increasing attention are being drawn to blended finance (BF), which uses catalytic capital from public or concessional sources to encourage private investment. However, it is not easy to evaluate BF because the involvement of organizations of different legal forms with different goals makes it difficult to infer a causal relationship between mobilized private investment and donors' interventions and assess the outcomes produced by mobilized private investment.

Therefore, in order to facilitate the evaluation of projects implemented by JICA with BF, this study aims to review and analyze the methods of major donors to evaluate BF projects (e.g. evaluation policies, items, and perspectives), use the results to draft a BF evaluation method for JICA, validate the drafted evaluation method by using it to evaluate individual projects in pilot countries on a trial basis, and establish a BF evaluation method for JICA. The study team is reviewing and examining the evaluation methods of other donors and will organize and analyze the findings of the review and the results of trial evaluations to develop evaluation method.



Source: Convergence

*1: Please refer to the following URL for details of knowledge lessons (in Japanese): https://www.jica.go.jp/activities/evaluation/lesson/ku57pq00001o9wd2-att/index_01.pdf

Analysis of Evaluation Methods for Scholarship Programs

JICA has supported human resources development by providing a scholarship program (Long-term Training Program) for young leaders in developing countries to promote development and solve problems in their home countries. JICA's scholarship opportunities continue to increase, further driven by the recent launch of the JICA Development Studies Program (JICA-DSP)*2. On the other hand, there are various difficulties in measuring the outcomes of scholarship programs, such as time taken to produce outcomes, difficult assessing the contribution of scholarship programs alone to participants' future career success, and working conditions required for participants to apply what they learned at the scholarship program after returning to their home countries. In order to learn lessons and fulfill its accountability despite these constraints, JICA should not only conduct follow-up surveys of former participants and collect success stories but also analyze the outcomes of its scholarship programs from various angles.

This study is designed to review the existing evaluation methods to measure and assess the outcomes of scholarship programs, examine case studies to develop evaluation items and methods for scholarship programs, and make recommendations for the evaluation of JICA's scholarship programs. The case studies will survey participants in the Master's Degree and Internship Program of African Business Education Initiative for Youth (ABE Initiative)*3, announced at the fifth Tokyo International Conference on African Development (TICAD-V) in 2013, and the JICA-DSP. This study will develop appropriate evaluation items and methods for JICA's scholarship programs by taking into account the characteristics that they cover a wide range of countries and fields of study and that human resource development takes a long time to produce a result.

ABE initiative trainees visited Japan

Nutrition Improvement through a Multifaceted Approach

While undernutrition accounts for almost half of the deaths among children under five in the world, the prevalence of overnutrition among children also increases around the world, including in developing countries. The prevalence of undernutrition and overnutrition is not only caused by direct factors, such as diseases and unbalanced diet, but also associated with a complicated combination of problems in different sectors, such as economic conditions, customs, education, and living conditions. Therefore, a multisectoral approach is needed to address malnutrition.

JICA has been assisting nutrition improvements through a multisectoral approach involving the public health, water supply and sanitation, agriculture and food, education, and other sectors in various countries. For example, in Ghana, JICA took a multisectoral approach to address malnutrition by introducing the maternal and child health handbook to provide nutrition counseling services in the public health sector and promoting parboiling technology to reduce the loss of nutrients in rice in the agricultural sector. However, JICA has not analyzed or evaluated its multisectoral nutrition interventions in a comprehensive way.

Accordingly, this thematic evaluation is being conducted, including a cross-sectional analysis of multisectoral nutrition interventions by JICA and other development partners and a quantitative analysis of outcomes in the nutrition sector. It aims to integrate quantitative and qualitative indicators and lessons learned into a versatile tool to formulate projects and monitor, evaluate, and visualize their outcomes in the nutrition sector.


A training conducted during the "Project for Improving Continuum of Care for Mothers and Children through the introduction of combined MCH Record Book"*4 in Ghana (2018-2021)
Photo credit: Yusuke Abe

*2: The JICA Development Studies Program (JICA-DSP) invites future leaders from developing countries to Japan and provides opportunities for them to learn Japan's experience of modernization, different from that of Western countries, and Japan's expertise as a development partner after World War II. Please refer to the following URL for details: https://www.jica.go.jp/jica-dsp/english/index.html
*3: The ABE Initiative is an industrial human resource program for young Africans. Please refer to the following URL for details: https://www.jica.go.jp/english/countries/africa/internship.html
*4: Please refer to the following URL for details of the project: https://www.jica.go.jp/project/english/ghana/010/index.html

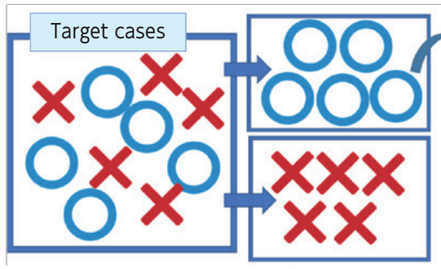
Qualitative Comparative Analysis (QCA)
- Strengthening organizational learning by utilizing QCA tools -

JICA has utilized Qualitative Comparative Analysis (QCA) as a new evaluation method, applicable given a limited number of target cases and simplifying the process of estimating the causal relationship between intervention and outcome.

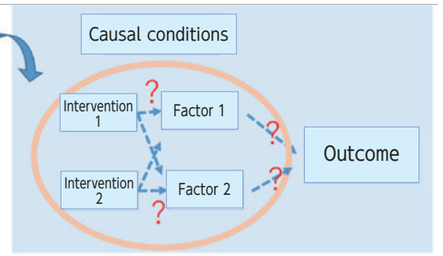
What is QCA?

QCA is a method used to infer the combination of causal conditions*1 surrounding projects (e.g.factors such as intervention of JICA projects and capacity of the recipient country) that could contribute to the project outcome. Specifically and as reflected by the QCA acronym, it constitutes using Qualitative (Q) information, such as the "presence/absence of an outcome" to determine patterns of causal conditions that contribute to project outcomes and categorizing and "comparing" (C) successful and unsuccessful cases*2. In other words: QCA analysis.

While quantitative analysis involves collecting samples and verifying the average effect of an intervention in a certain group, QCA paves the way to also analyze low numbers of cases*3 as it uses characteristic cases for data, such as "successful/unsuccessful", rather than average cases. Another feature of QCA is its ease of adoption, given that QCA do not require advanced mathematical/statistical knowledge and cost and timing hurdles are low.



Compare 10 to 40 cases in terms of the presence/absence of an outcome.



Then, analyze which combinations of interventions and factors contribute to outcomes among those groups with the presence of outcomes.

Among several QCA methods, one representative example that is easily interpreted is Crisp-set QCA, using only binary data (1 and 0). Here, a dataset is created for each case by allocating information on successful (1) or unsuccessful (0) interventions and the presence (1) or absence (0) of an outcome. Analyzing the relationship between (0) and (1) based on Set Theory, QCA extracts patterns of causal conditions that contribute to outcomes.

JICA has started efforts to identify which causal conditions among multiple factors surrounding projects contribute to this outcome, using QCA methods. This annual report will introduce two cases applying QCA this fiscal year.

(1) Application of QCA to forest projects in India and its utilization going forward

JICA has applied QCA for two participatory forest projects implemented in India (both under the ODA Loan scheme), namely: the Tripura Forest Environmental Improvement Project and the Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project*4, simultaneously in conducting their ex-post evaluation.

The purpose of this QCA is to identify which interventions and factors presented outcomes resulting in improvements to the natural environment, the living standards of residents and the social and economic capacities of women. Specifically, the research question is defined as "Which interventions and factors in the participatory planting projects in India have achieved said three outcomes". As variations (indicators) and causal conditions related to project effects, JICA will set variations to analyze relations per target projects. As for "environmental improvement", variations could be whether the project implemented was in line with a forest management plan, whether a road/school/meeting place was constructed during an entry-point activity and whether the revenue of the joint forest management committee (JFMC) from their forest products suffices to cover their operation. As well as analyzing on a per-project basis, it is expected to clarify the interventions and factors related to project effects achieved in the Indian forest sector by analyzing both projects using variations common to them.

When selecting cases, it is important to maintain key conditions such as rainfall elevation, annual average climate and tree species, all of which are factors directly affecting outcomes but difficult to change through project intervention. That helps boost the comparability of factors. In practical terms, target areas and villages meeting criteria are identified in advance, as well as cases with the necessary (given) conditions, like the abovementioned rainfall, to make them comparable. To confirm such necessary conditions and maintain comparability in conducting QCA, there is a need to pursue cooperation on the part of related organizations owning the required data other than those of implementing agencies (e.g. geographic information systems). Accordingly, JICA will continue to proceed with the survey and analysis while tackling such issues in case selection.

A forest in Uttar Pradesh (March 2020, photo credit: Evaluator)

A forest in Tripura (March 2020, photo credit: Evaluator)

(2) QCA related to collaboration between Grant Aid and Technical Cooperation in the water supply sector

Leveraging statistical analysis results on the collaboration between Grant Aid and Technical Cooperation (refer to P.60-61), JICA utilized QCA to further analyze conditions effective for collaboration of both schemes in the water supply sector, in which the number of collaboration cases peaked and studied patterns of Technical Cooperation which impacted on the effectiveness and sustainability of Grant Aid projects. Specifically, the scope of patterns deemed as eliciting more positive impacts among the results quantitatively compiled by statistical analysis was further narrowed down to the water supply sector. Subsequently, the timing of the Technical Cooperation project implementation was analyzed as a causal condition to outcomes of "High Effectiveness/Impact of Grant Aid".

The quantitative analysis identified patterns in which introducing facilities/equipment by a Grant Aid project after implementing a Technical Cooperation project is attributable to effectiveness. Additional examination by QCA suggested that in the water supply sector, implementing Technical Cooperation and Grant Aid projects almost simultaneously would attribute to effectiveness (in this case, Technical Cooperation provides know-how on operation and maintenance directly linked to facility/equipment provided by Grant Aid) (Figure 1) and implementing Technical Cooperation for the long term, covering a period before and after Grant Aid implementation, would help achieve effectiveness and sustainability (in this case, Technical Cooperation mainly focuses on nurturing human resources

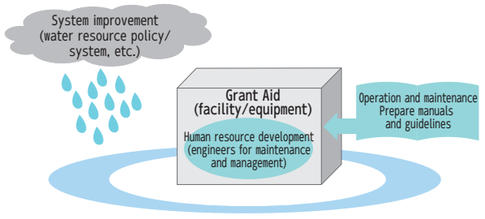


Figure 1 A pattern attributable to effectiveness

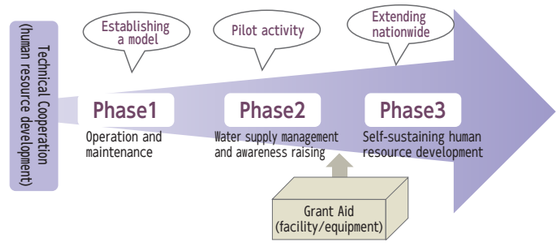


Figure 2 A pattern attributable to effectiveness/sustainability

of water supply, enhancing their facility operation and maintenance capacity but also raising awareness of water supply management and tariff collection to establish a human resource development system organized by local resources, at least at the time of completion of Grant Aid) (Figure 2).

The importance and effects of collaboration between financial cooperation, including Grant Aid and Technical Cooperation, have been mentioned in many ex-post evaluation reports and are perceived in the actual project scenes. However, they had not been proven with data. Despite quantitative analysis showing the collective results of many projects cross-sectorally, case analysis was needed, given the limited number of target cases for quantitative analysis. Even if no clear result was available from quantitative analysis due to the limited number of cases, QCA could be utilized to identify trends by comparing individual cases with features that stand out. Accordingly, the importance of program approach was indicated and lessons for project planning going forward were learned.

Leveraging QCA in future

QCA is expected to be utilized to improve projects based on the causal relationship between outcome and intervention as suggested by digitalizing intervention and factors linked to achieving project effects (impressions of local staff and beneficiaries and facts such as environmental factors) and organizing patterns of their combination using Set Theory. Moreover, QCA is a new approach linking both quantitative and qualitative analyses, which are often carried out independently, drawing a causal inference of project effect achievement but also helping further enhance learning within related organizations. Accordingly, JICA will promote the use of QCA.

*1: "Causal conditions" in QCA refers to those conditions that contribute to outcomes.
*2: Quantitative data can also be used for categorization/comparison.
*3: While it depends on the number of causal conditions, QCA can be conducted with around 10 to 40 cases in general.
*4: Please refer to the evaluation report of each project for details. External ex-post evaluation results on P.10-11 show the link to report on the project title.

Process Analysis

JICA has been trying to find ways to integrate findings from project evaluations to improve project management. In these attempts, we have not only assessed project results (outcomes) but also actively analyzed project processes (how the project process affected the delivery of the outcomes) to enhance learning.

This year, JICA has analyzed an education-sector reform project in Rwanda and transportation project in Vietnam, focusing on the project implementation process: how was the project effect achieved as planned/aimed and, in particular, how did the project stakeholders promote discussions/coordination to implement the project? The specific details are shown below.

Case study Process Analysis on "Project of School-based Collaborative Teacher Training(SBCT)" in Rwanda

The Project of School-based Collaborative Teacher Training (SBCT) in Rwanda, completed in December 2015, was implemented to improve the education in Rwanda through disseminating a system of the "School-Based In-service Training (SBI)" for lower secondary schools nationwide. This was a voluntary and spontaneous training activity among teachers, in response to the increasing need for in-service teacher training in Rwanda, which is promoting reforms in its education sector.

As a preceding project, the Project on Strengthening Mathematics and Science in Secondary Education (SMASSE) was implemented from 2008 to 2011 to improve the quality of lessons delivered by science and math teachers in secondary schools. SMASSE achieved its project purpose, given that the teachers significantly improved their lessons once trained, such as providing learner-centered lessons, but several challenges remained. The trainees did not share the knowledge and skills acquired through trainings with their colleagues due to the lack of a scheme for exchange and sharing such information, meaning the scope of the project effects remained limited. With this in mind, the SBCT project defined disseminating systematic and voluntary training activities as basic policy and planned a process to encourage teachers to work on the PDCA process for which they set training themes, consider custom-made measures to solve issues, put them into practice, conduct evaluations on these, and provide feedback to further improvement.

The terminal evaluation of the project confirmed various effects such as improvement in student performance represented by the better results on graduation exams for students of schools where the project implemented SBI, compared to non-SBI schools. A further benefit was the building of cooperative relationships among teachers as shown by some teachers starting to discuss issues with their colleagues (nurturing a school culture of mutual teaching). However, the causal relationship between the project intervention (activities to support SBI implementation) and its effects has not been fully examined, particularly the effect development process and the changes that were brought about by SBI in the knowledge, skills, attitudes and behavior of the project targets. Verifying these would make it possible to consider and apply activities that are more effective in achieving the target when forming and implementing similar projects in the future. Accordingly, JICA endeavors to identify the project planning and implementation processes, stakeholders' roles, organization/operation of the implementing agency, and other focuses to show applicable lessons for similar projects in future.

This analysis has been conducted referring to the method of "Process Analysis on Ex-post Evaluation." However, in response to the COVID-19 pandemic, information from local stakeholders have been collected remotely utilizing local consultants, online hearing and questionnaire while making sure the quality of the information by carrying out thorough monitoring such as arranging questions, reconciling interviewing contents, collecting videos, images as well as other visual data and revising questions as needed by being reported orally immediately after a hearing survey was completed. With these efforts, further analysis will be conducted based on the information collected.

A hearing survey with a target school

Case study Achieving effects and formulation of airport/port projects in Vietnam

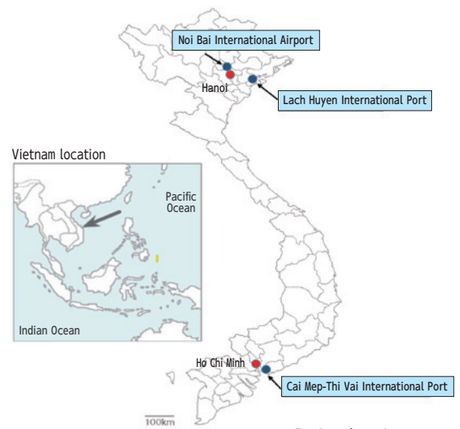
The Cai Mep-Thi Vai International Port Development Project was completed in April 2015. The objective was to construct container and general cargo terminals in the Cai Mep-Thi Vai area of southern Vietnam's Ba Ria-Vung Tau Province and develop infrastructure related to the terminals, in response to the increasing national demand for cargo, thereby supporting economic growth, not only in southern Vietnam, but nationwide. Since the low operation rate of the port remained a concern prior to the project completion, the project stakeholders approached the recipient government to boost this rate. The (external) ex-post evaluation observed an improvement in the rate and other items; confirming the positive evaluation results. Against this background, the process of overcoming concerns and achieving project outputs has been analyzed and verified by gaining feedback from relevant Japanese and Vietnamese personnel involved in the project, referring to existing documents and conducting a field survey to obtain lessons for similar port construction projects to be implemented going forward.

Meanwhile, in response to the growing number of larger vessels in the maritime transportation market, the ongoing Lach Huyen Port infrastructure construction project will respond by building a new international deep-sea port and related basic infrastructure in the Lach Huyen area, Cat Hai district, located in eastern Hai Phong, further boosting the economic development and competitiveness of Vietnam in the international market. This project was the first joint initiative between the public and private sectors in Japan and Vietnam to utilize the ODA loan scheme, planned and initiated by both governments as part of a strategic partnership. Accordingly, in formulating the Lach Huyen project, JICA considers that useful lessons have been learned for formulating similar projects in future by recording/analyzing how both Japanese and Vietnamese private and public sectors discussed and coordinated on how to make the project work.

Moreover, three construction projects, namely the Hanoi City International Gateway (the Terminal 2 Construction Project in Noi Bai International Airport, the Nhat Tan Bridge (Vietnam-Japan Friendship Bridge) Construction Project and the Noi Bai International Airport to Nhat Tan Bridge Connecting Road Construction Project), the opening ceremony of which was held in January 2015, were expected to boost the economic development and competitiveness of Vietnam overseas, by constructing a new international terminal building and improving access from downtown Hanoi. The projects have exceeded expectations, including saving more than 20 minutes on access time to the city and easing traffic congestion there. To verify the successful factors, JICA has confirmed and analyzed the efforts made in formulating and supervising three relevant projects, including the development of an airport and related infrastructure.

In response to the COVID-19 pandemic, JICA will collect information from local stakeholders remotely via local consultants and an online interview and questionnaire to proceed with the analysis.

A berth and cranes in the Cai Mep container cargo terminal



Project location map

These analytical results will then be compiled in line with the Delivery Challenge provided by the Global Delivery Initiative (GDI), a knowledge platform established by the international development community, summarized as Delivery Notes and published on the GDI website.

Impact Evaluations

To further improve quality of the project and make it more effective, JICA has been promoting Evidence-Based Practice (EBP) and applying impact evaluation*1 as an effective tool.

Many donor agencies have recently been promoting EBP and emphasizing the application of impact evaluation as key to further boosting projects and making them more effective. JICA conducts impact evaluations in health, education, agriculture and various other sectors.

An impact evaluation precisely assesses the changes caused in target societies by intervention (i.e. specific measures, projects, or development models to improve and solve development issues). To determine the effects of projects precisely, situations actually observed (Factual) and situations which would have appeared in the absence of the project (Counterfactual) must be compared. However, understanding counterfactual situations remains a challenge, since "ex-ante" conditions and situations outside the target area, which are compared before and after intervention to policies and projects to verify their effectiveness, often differ from counterfactual situations. Accordingly, to eliminate evaluation bias and ensure a reliable impact evaluation result, a Randomized Controlled Trial (RTC) is conducted, which carefully chooses an ideal control group indicating a counterfactual situation, or applying various statistical analyses as required to evaluate the real effect of intervention.

Since an impact evaluation requires additional costs and high expertise for its analysis, JICA prioritizes based on evaluation purposes and needs and conducts impact evaluations selectively on relevant projects. Impact evaluations will be actively incorporated into such projects to apply a new approach or expand the scale going forward so that reliable evidence obtained from the impact evaluation can be utilized for and reflected in project implementation and policymaking in partner countries.

Candidates capable of planning, conducting and supervising impact evaluations properly as well as utilizing the result are crucial in promoting impact evaluation. Accordingly, JICA also strives to develop human resources for impact evaluation via capacity development training on impact evaluation for development consultants and other personnel.

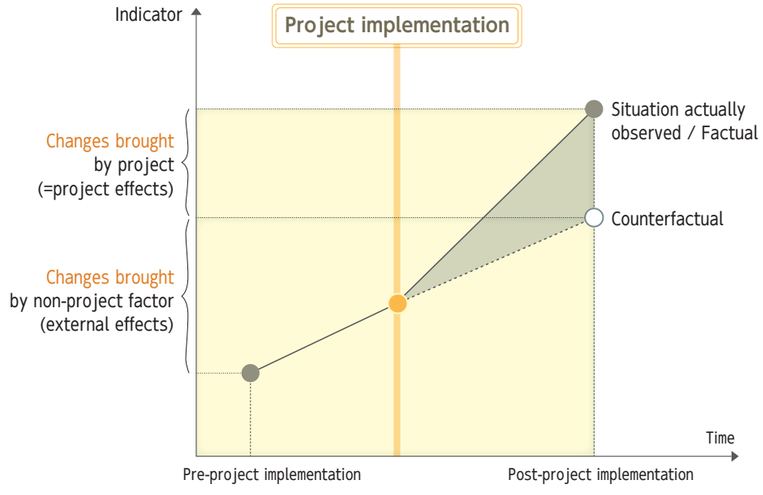


Figure Conceptual Diagram of the Impact Evaluation: Comparison of situation actually observed and counterfactual situation

*1: The definition of the term "impact" in impact evaluations differs from "impact" as cited in the five OECD-DAC Evaluation criteria. The latter is defined as "positive and negative, primary and secondary long-term effects which a development intervention elicits, regardless of whether directly or indirectly and intended or unintended" (overall concept of "outcomes") while the former refers to effects produced by a project more directly, including the "outcomes" described in the criteria.

Case study

Project for Capacity Building of Facilitators on Improving Productivity and Quality for Small and Medium Enterprises in Central America and the Caribbean Region
- Verifying effects of introducing *Kaizen* on working conditions, wages and employment -

Most businesses throughout Central America and the Caribbean Region are classed as small and medium enterprises (SMEs). And with the need for job creation, economic growth and poverty reduction in mind, developing their capacity remains an important challenge. To strengthen quality management and organizational capacity, which impact directly on SMEs' competitiveness and productivity, JICA has supported the efforts of SME support agencies in the regions to replicate Japanese methods to improve and hence enhance their consultation capacity to SMEs. The project has trained facilitators and introduced Japanese *Kaizen* management*2 to improve SMEs and their productivity within each country.

Although past studies mainly evaluated the impact of introducing *Kaizen* on management practices and business performance, few studies have assessed the impact on workers from perspectives of working conditions, wages and employment. Since *Kaizen* applies a participatory approach, in which all parties, from managers to workers, are involved, it is important to understand any changes in workers' awareness and behavior. Accordingly, working alongside an external researcher, a interview survey was conducted, targeting both managers and workers of enterprises having introduced *Kaizen*, and propensity score matching methods*3 were applied to analyze the effect of *Kaizen* and evaluate the impact of introducing it during the project on working conditions, wages and employment in SMEs in the regions*4.

The analytical result confirmed that managers felt that *Kaizen* encouraged employees to change, including: (1) Improve their working practices, (2) Increase their participation to work and (3) Enhance mutual trust. Simultaneously, managers and workers perceived the *Kaizen* effects differently, and especially for the part of workers, it takes time to embrace new initiatives and realize their effectiveness. Conversely, the analysis found sales, wages and employment remained unaffected. To elicit positive impacts on these elements across SMEs, as well as *Kaizen*, a broader management approach is also needed.

The introduction of *Kaizen* is considered to require workers to have a mindset of thinking spontaneously and independently, and the results of this verification provide important suggestions for the continuous development and improvement of *Kaizen* activities in the future. With a view to introducing *Kaizen* on a long- rather than short-term basis, JICA will continue its *Kaizen* cooperation, taking into consideration the importance of establishing *Kaizen* and the need to carefully ensure workers' understanding of *Kaizen*.

A factory introduced *Kaizen* in El Salvador

*2: The term '*Kaizen*' collectively means activities to make each workplace more productive according to the business type, scale and production environment. It is believed to be one of the factors supporting the high growth of Japan from a production perspective.

*3: A method to compare two groups with similar characteristics by selecting the target subjects of intervention and non-target subjects of a similar nature on the individual background factors observed. By using logistic regression with explanatory variables, which include background factors that impact on determining the intervention subject and the actual existence of intervention, it calculates the probability (propensity score) to presuming the attribute of each case (intervention or control groups). Subsequently, a comparison control group is formed by randomly selecting (matching) pairs of the target subjects and non-target subjects with similar propensity scores.

*4: Shimada,G and Sonobe,T (2018). Impacts of Kaizen Management on Workers: Evidence from Central America and the Caribbean Region
https://www.jica.go.jp/jica-ri/publication/workingpaper/wp_173.html

Case study Disaster prevention education project utilizing a traditional "Maena" dance in Nias Island - Verifying effects of introducing disaster prevention education on children's disaster prevention awareness and behavior -

Nias Island in Indonesia was seriously damaged by the Nias-Simeulue earthquake that struck in March 2005. Having experienced such an unprecedented disaster, the Island acknowledged the urgent need to promote in-depth understanding and raise awareness of the inhabitants with regard to disaster prevention as well as the need for prompt evacuation and other responses. However, sufficient improvement did not transpire after the disaster, due to the lack of disaster prevention education and a local custom whereby inhabitants hesitate to discuss disasters.

Under the circumstances, JICA provided support for disaster prevention education utilizing a traditional dance "Maena"*1, which Wako University has implemented (Grassroots Technical Cooperation). The most notable features of the project include ensuring each elementary school child creates a "Maena for disaster prevention", which incorporates the concept of disaster prevention into the Maena lyrics and presents in each area of the Island as well as basic disaster prevention activities such as confirming evacuation routes and instruction systems during disasters and improving the emergency contact network. This unique idea of utilizing traditional dance was inspired by the ability of neighboring Simeulue Island to minimize fatalities following the 2004 Indian Ocean earthquake and tsunami thanks to inherited lullabies and folklores which incorporate disaster prevention insights. From the start, the project was also expected to achieve psychologically preferable effects by learning through fun and familiar culture such as traditional dance.

From 2017 to 2018, JICA deployed external researchers and precisely verified the project effect on children's disaster prevention awareness and behavior. Specifically, a questionnaire survey was conducted; targeting elementary schoolchildren on whom Maena for disaster prevention was implemented (intervention group) and those schoolchildren facing similar geographical conditions but outside the program scope (non-intervention group) to conduct an impact evaluation incorporating "propensity score weighting (PSW)" *2 and "difference-in-differences (DID)" *4.

The analytical results revealed that Maena for disaster prevention made schoolchildren be more aware of the importance of discussing disaster preparedness and prevention. Across the board, children of the intervention group actively gained insights into natural disasters from their family and neighbors and extended their disaster prevention knowledge. More importantly, in accordance with these changes, they were more likely to engage in proper evacuation behavior, such as moving under the table when an earthquake actually occurred. Conversely, the project did not improve awareness of disaster risks in Nias Island, since disaster awareness was already high among its inhabitants.

The impact evaluation indicated that disaster prevention education utilizing Maena helped improve disaster prevention knowledge and evacuation behavior. Effectiveness achieved by this approach of leveraging traditional dance without large-scaled cost and equipment will be crucial when implementing similar projects in future with cost effectiveness in mind. Inspired by the project activities and its impact evaluation result, Maena for disaster prevention has been introduced island-wide in all elementary schools as an extracurricular lesson.

Evacuation drills

Schoolchildren dancing Maena for disaster prevention

*1: A dance with a song casually enjoyed at wedding ceremonies and various other events in Nias Island. The steps are understandable, which means anyone can participate.
*2: A method to remove bias from measuring effects by calculating the probability of each target subject included in intervention group (propensity score) and the declining weights of children with excessively higher and lower probability when comparing both groups.
*3: A method to estimate the effect of intervention by calculating difference-in-differences between the outcome change before and after intervention in the intervention group and the outcome change of the same period in the on-intervention group.
*4: Shoji, M., Takafuji, Y., & Harada, T. (2020). Behavioral Impact of Disaster Education: Evidence from a Dance-Based Program in Indonesia. *International Journal of Disaster Risk Reduction, 45,* 101489. https://www.sciencedirect.com/science/article/abs/pii/S2212420919311392?via%3Dihub

Contributed Article For Evidence-based Strategy Development

Hiroyuki Yokoi, Evaluation Officer, Independent Evaluation Group, World Bank

The 2019 Nobel Prize for Economics was awarded to three economists, Professor Abhijeet Banerjee and Professor Esther Duflo from the Massachusetts Institute of Technology (MIT) and Professor Michael Kremer from Harvard University in the US, for their experimental approach to alleviating global poverty. Their impact evaluation*1 is essentially intended to provide evidence based on experimental results. Driven by their research, the number of impact evaluations has increased significantly since around 2005, reaching over 500 cases per year*2. Then, the question is, how much is this evidence used? And how can it be used in policy-making and project design for developing countries?

How do international organizations use impact evaluation?

According to a report published in 2012 by the Independent Evaluation Group (IEG) of the World Bank, the World Bank Group conducted 411 impact evaluations from 2000 to 2010, and 22-23% of them were used to make important decisions for projects (e.g. whether to continue, scale up, scale down, or suspend the project). This report also indicated that the systematic selection of sectors for impact evaluation and the integration of impact evaluation into the project cycle are essential to the effective use of impact evaluation results*3. Meanwhile, the IEG report entitled "Learning and Results in World Bank Operations: How the Bank Learns" pointed out that the strong pressures for disbursements on World Bank staff had made it difficult for them to use academic research and impact and project evaluation results in project design and implementation*4.

The Inter-American Development Bank reported that it had planned and conducted 380 impact evaluations from 2006 to 2016 and found that projects with impact evaluations have faster disbursements and are completed earlier than projects without impact evaluations. Like the World Bank, the Inter-American Development Bank also indicated that the lack of a consistent strategy for selecting projects with impact evaluations hindered the effective use of impact evaluation results in sector strategy development*5.

The World Bank's efforts to turn evaluation results into action

The IEG is responsible for evaluating the relevance, efficacy, and efficiency of programs and projects carried out by the World Bank Group, assessing their contribution to development effectiveness, and communicating evaluation results and recommendations to the World Bank Group's Board of Directors through the Committee on Development Effectiveness (CODE). The IEG's recommendations based on corporate, sector, and thematic evaluation results are compiled and translated into action plans for the World Bank Group in the Management Action Record (MAR), which is used to facilitate regular monitoring. However, the MAR has not been used as much as expected (52% of the recommendations have been implemented). The IEG is now reviewing the implementation of the MAR and reforming the MAR system. This reform aims to make the IEG' s recommendations fewer and more strategically focused, clarify whether the Bank's management will agree or disagree with the recommendations, and require the Bank's management to report annual progress towards the recommended outcomes*6.

To use evidence in strategy development

As shown in the above-mentioned examples, there are some key points to consider, depending on the type of evaluation, such as impact, corporate, sector, thematic, country, and project, in order to ensure the full use of evidence gathered from evaluations in strategy development, policy-making, and project design. Given these lessons, what should development partners, like JICA, take into account? The answer to this question is to consider two aspects: technical and organizational.

*1: See P. 44-46 for details of JICA's approach to impact evaluation.
*2: Manning, R., Goldman I., & Hernandez Licona, G. 2020. The impact of impact evaluation: Are impact evaluation and impact evaluation synthesis contributing to evidence generation and use in low- and middle-income countries?. WIDER Working Paper 2020/20. Helsinki: UNU-WIDER.
*3: Independent Evaluation Group. 2012. World Bank Group Impact Evaluations : Relevance and Effectiveness. Washington, DC: World Bank. © World Bank. https://openknowledge.worldbank.org/handle/10986/13100 License: CC BY 3.0 IGO.
*4: Independent Evaluation Group. 2014. Learning and Results in World Bank Operations : How the Bank Learns, Evaluation 1. World Bank Group, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/19982 License: CC BY 3.0 IGO.
*5: Crespo, Ana, and Oliver A. Azuara. 2017. IDB's Impact Evaluations: Production, Use and Influence. Washington, DC: Inter-American Bank.
*6: Independent Evaluation Group. 2020a. Management Action Record Reform: IEG's Validation Report. Washington, DC: World Bank. © World Bank.

To strengthen evaluation methodology and maintain quality

On the technical aspects, strengthening evaluation methods is the element that an institution has to explore at the first place. Evaluation methods should be designed flexibly, depending on the unit of analysis chosen (e.g. corporate, sector, thematic, country, or project). In particular, in the case of corporate, sector, thematic, and country evaluations, evaluation design needs the consistency from planning to implementation to ensure the systematic evaluations across the different levels (e.g. project, program, partnership, and organizational). More specifically, it is essential to set clear and logical evaluation questions, develop an analytical framework in line with the questions, and select mixed methods based on the analytical framework, generate and analyze data based on the evaluation questions and the analytical framework, and integrate the analytical results gained by applied methods*7. The second technical aspect is how to maintain and enhance the quality of evaluation. As mentioned above, there is a qualitative gap in impact evaluation. For example, 94% of the 166 impact evaluations conducted by the World Bank were satisfactory in quality*3, while 55% of the impact evaluations conducted by the Inter-American Development Bank were satisfactory in quality by international standards*8. Evaluators need to ensure evaluation quality and data accessibility*9 to deliver high-quality evaluations that meet the international standards.

Identify evaluation needs and integrate evaluation into the management cycle

On the organizational aspect, one has to consider the way to identify evaluation needs. In any products, a proper assessment of demand is essential. Evaluators need to engage with the management to capture organizational strategies for the next few years and to anticipate what evidence will be needed for the management. The IEG consults with the World Bank President and various other management team when making an annual working plan to understand which direction management will steer the Bank in, know what evidence will be needed, and strategically select what to evaluate. For example, the latest working plan calls for strengthening country evaluation capacity in order to enhance the Country Partnership Framework as intended by management and selects sector and thematic evaluations to focus on in line with the strategic focus of the World Bank*10.

The second organizational aspect is how to integrate various evaluation tools into the management/project cycle. As mentioned above, the lack of integration of impact evaluation into the project cycle prevents the strategic use of impact evaluation results. Moreover, even if corporate and sector evaluations are conducted, the recommendations are often out of date when the evaluation results are reported because there is a time lag between identifying evaluation needs and reporting evaluation results.lin order to ensure the appropriate distribution of limited management resources, evaluators should agree, before starting evaluations, with users (management, operational departments, and staff) on the evaluation cycle and the evidence to be gathered while taking into account management or sector strategies or projects in the pipeline for the next few years.

Professor Ronald A. Heifetz at Harvard University makes distinctions between technical problems and adaptive challenges for organizations. Many organizations*11 deal with technical problems but cannot properly address adaptive challenges. In the evaluation, the technical problem is how to generate good quality evidence, while the adaptive challenge is how to organize the systemic use of evidence. These two issues should be addressed in parallel to facilitate evidence-based policy-making.

*7: For details of these discussion, refer to Fereday and Muir-Cochrene (2006) and Johnson, Adkins and Chauvin (2020).
*8: Crespo, Ana, and Oliver A. Azuara. 2017. IDB's Impact Evaluations: Production, Use and Influence. Washington, DC: Inter-American Bank.
*9: Manning, R., Goldman I., & Hernandez Licona, G. 2020. The impact of impact evaluation: Are impact evaluation and impact evaluation synthesis contributing to evidence generation and use in low- and middle-income countries?. WIDER Working Paper 2020/20. Helsinki: UNU-WIDER.
*10: Independent Evaluation Group. 2020b. IEG Work Program and Budget (FY20) and Indicative Plan (FY21-22). Washington, DC: World Bank. © World Bank.
*11: Heifetz, R. A. 1., Grashow, A., & Linsky, M. 2009. The practice of adaptive leadership: Tools and tactics for changing your organization and the world. Boston, Mass.: Harvard Business Press.

Knowledge Co-Creation Program for Evaluation Capacity Development in Developing Countries

JICA organized a new Knowledge Co-Creation Program for government officials in developing countries to learn how to design, implement, and institutionalize project evaluations. The first program session for FY2020 was held virtually online from January 25 to February 19, 2021.

The 2030 Agenda for Sustainable Development, adopted along with Sustainable Development Goals (SDGs) at the 70th session of the United Nations General Assembly on September 25, 2015, include an additional chapter on "Follow-up and Review" to achieve the SDGs and point out the importance of developing clear, measurable indicators. The Agenda also underline the need to strengthen evaluation capacities in developing countries and call for active support from development partners.

Against this backdrop, JICA organized a new Knowledge Co-Creation Program on project evaluation regarding "Capacity Development for Improving Design, Implementation and System Institutionalization" for officials from central governments and other relevant agencies in developing countries to learn how to design, implement, and institutionalize project evaluations in order to enhance their evaluation capacities and develop and strengthen evaluation systems in individual countries. This program is to be held from FY2020 to FY2022.

This training course aims to develop evaluation capacity and knowledge of evaluation methodology so that participants can make specific recommendations to improve their countries' project evaluation systems. To this end, four unit objectives (outcomes) are set for participants: (1) to grasp the present situations and challenges of project evaluation system of each participants' country and entity, (2) to understand the present situations and challenges of project evaluation systems in Japan and the world aligning with the SDGs, (3) to acquire knowledge and methodologies for evaluation design and project evaluation system which can provide useful information for project management, and (4) to propose a concrete plan for improvement of project evaluation system in each country.

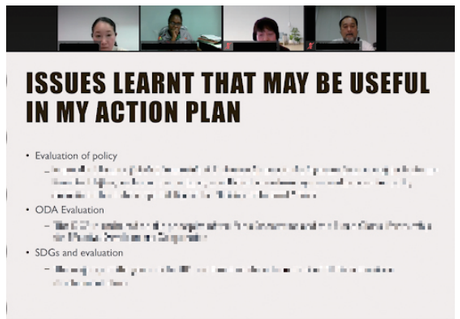
In order to achieve these objectives, this training program was prepared and implemented in cooperation with many partners, including Professor Takahiro Saito at Osaka University and other experts from the Japan Evaluation Society (JES) and officials from the ODA Evaluation Division of the Minister's Secretariat of the Ministry of Foreign Affairs and the Engineering Affairs Division of the Minister's Secretariat of the Ministry of Land, Infrastructure, Transport and Tourism, who developed training materials and answered questions from participants.

The training session for FY2020 was held virtually online from January to February 2021 because the COVID-19 pandemic prevented participants from traveling from their home countries to Japan. The four-week training session was attended by six participants from six countries: India, Papua New Guinea, Botswana, Zimbabwe, Moldova, and Ukraine. These participants, responsible for monitoring and evaluating programs and projects at central and regional government agencies and facing problems with the design, implementation, and institutionalization of project evaluations, examined and analyzed their organizations' evaluation systems and structures and developed specific action plans. They took into account their individual situations, through lectures from and discussions with experts with rich knowledge and experience in the evaluation field. In addition to these participants, 10 other officials from the target countries and three national staff members from JICA overseas offices participated in the training as observers, accessing on-demand training materials. In Ukraine, the participant from the State Road Agency took the initiative in applying the outcomes of the training by making measures to improve the evaluation system in collaboration and cooperation with the observers from the same Agency and the Ministry of Finance.

Online training programs for participants from different countries and regions around the world need to be adjusted taking into account the time differences between the participants' countries. In this training program, lecturers of various fields of study developed new on-demand training materials (by uploading lecture videos to YouTube and distributing audiovisual materials) to allow participants to learn by themselves in an efficient manner. Moreover, while taking into account time differences between participants, this training program provided opportunities to let participants join online presentations and discussions so that they were able to learn from each other.

JICA will learn lessons from the first session in FY2020 to further improve the content and quality of the training sessions for the next two years.

An online discussion



An online presentation of action plan

Information Dissemination and Learning

One of the objectives of JICA's project evaluation is learning. JICA evaluates its projects to review the problems faced by past projects and their solutions, as well as causes for failure, and draw lessons for future project management and improvements. The evaluation results are shared within the organization and widely disseminated to the development community inside and outside of Japan.

Presentations at the Japan Evaluation Society

The 21st Conference of the Japan Evaluation Society (JES) was held online on Saturday, November 28, 2020, and JICA planned and organized a session on project evaluation. This was the eighth session held by JICA, which has hosted a common session or sessions every year since 2015. Like previous years, this year's session aimed to share recent developments in project evaluation and collect insights from participants to improve JICA's project evaluation practices. The conference was attended by approximately 100 participants, who were divided into three sub-conferences. JICA's session attracted some 60 participants, who actively participated in the discussion.

The first half of the session started with an explanation of the background and purpose of the session, followed by three presentations. The first presentation, entitled "Influence to the Operation of JICA Project Evaluation by COVID-19" described the impact of COVID-19 on JICA projects and ex-post evaluations and the responses of JICA to these challenges. The next presentation on "Revision of JICA Ex-post Evaluation Criteria and its future prospect" outlined important modifications made to JICA's evaluation criteria in line with the new DAC evaluation criteria revised to incorporate the principles of the SDGs, as well as arguments raised in this process*1. The third presentation on "New DAC Evaluation Criteria, Interpretation and application" provided examples of terms redefined in the new DAC evaluation criteria (e.g. outcome, equity, human rights, resilience, and coherence) to suggest that the new criteria should be interpreted and applied not in their literal sense but the context of each project.

These presentations were followed by questions from the audience, such as (1) how these modifications had improved learning in the project evaluation process and (2) how stakeholders had reacted to the change from a three-level to a four-level sub-rating system. To answer question (1), JICA explained that non-scored items had been added to improve learning. Then, JICA answered the question (2) by saying that the change had been favorably received by internal and external stakeholders, including advisory committee members, because it would prevent the ratings from converging to the midpoint and in turn, facilitate more accurate trend analysis and help make recommendations and proposals.

The second half of the session included a presentation on "An Application of Qualitative Comparative Analysis (QCA): Discussion on Influence of JICA's Technical Assistance Project to Effectiveness and Sustainability of JICA's Grant Aid Project in Water Sector"*2. This presentation discussed the analysis of effective collaboration between Grant Aid and Technical Cooperation in the water supply sector and outlined the patterns of Technical Cooperation that would improve the effectiveness and sustainability of Grant Aid. As mentioned above, this session was a good opportunity to report JICA's past efforts and progress in project implementation during the recent COVID-19 pandemic and share information on JICA's recent evaluation activities with evaluation experts through discussions with the audience. The insights gained through the exchange of views at this conference will be used to further improve JICA's project evaluation practices.

Presentations at the Japan Society for International Development

In response to the first revision to the DAC evaluation criteria in almost three decades, JICA held a round-table session entitled "Evaluation of International Development Project –Focusing on Updates of DAC Evaluation Criteria–" at the 31st Annual Conference of the Japan Society for International Development (JASID) on December 5 and 6, 2020.

This revision to the DAC evaluation criteria, intended to adapt evaluation to the SDGs and incorporate the principle of "Leave No One Behind" in the evaluation process, shared an important underlying theme with the JASID Annual Conference, which was entitled "Time for Change: Innovation for Inclusive Society."

In the round-table session, JICA made three presentations. The first presentation, entitled "The Background and Outline of the New DAC Evaluation Criteria and JICA's Response," described the background and objectives of the revised DAC evaluation criteria and the content and highlights of the consequent modifications to JICA's project evaluation criteria. The next presentation on "A View on the Revised Ex-post Evaluation Criteria from Project Management Department side" pointed out the importance of identifying keys to success in innovative, challenging projects through ex-post evaluations. The third presentation on "Future Challenges for JICA's Project Evaluation" discussed the revised evaluation criteria and their future implications as well as JICA's efforts to facilitate the use of lessons learned.

Following these three presentations, participants made comments, such as "I think it was a good revision," "Because gender equality, human rights, and human wellbeing are qualitative measurements, they may raise a question of objectivity," and "It seems that this revision will make it more important to enhance quality control in the evaluation process." In response to these comments, JICA explained its plans to address the proposed issues. JICA's new project evaluation criteria will be applied to project evaluations initiated in FY2021 and onwards. JICA will actively disseminate and share the knowledge and experience gained through the application of these new criteria with internal and external stakeholders, including relevant conference attendees, and use their feedback to further improve the quality of evaluation.

Collaboration with the Development Assistance Committee of the Organization for Economic Cooperation and Development (OECD-DAC)

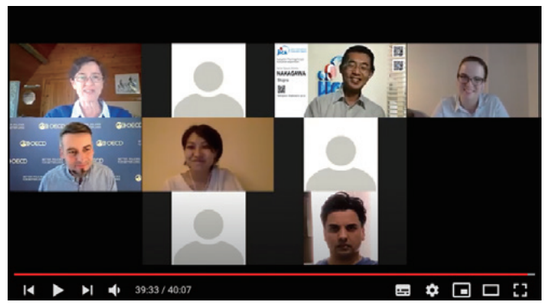
International collaboration is increasingly important to achieve the SDGs with limited resources. In particular, JICA emphasizes communication and collaboration with multilateral and bilateral development partners, cooperating to create a groundswell of support to international development and facilitating information-sharing and collaboration to improve project and organizational management.

In 2020, the Results Community planned to develop guidance to help members implement the Guiding Principles on Managing for Sustainable Development Results*4 adopted by the DAC in July 2019. With the COVID pandemic hampering in-person workshops, virtual working groups were established to exchange on the challenges identified by members to align to the Guiding Principles and the solutions to address them.

The OECD-DAC has established the Results Community*3, a network of partners to promote results-based management (RBM) in the global community. JICA has participated in the Results Community to support its vision to promote RBM. In 2020, the Results Community originally planned to develop technical guidelines, such as guidance on the Guiding Principles on Managing for Sustainable Development Results*4, adopted by the DAC at the July 2020 meeting. However, they changed their plans to address the COVID-19 pandemic and exchanged information to identify problems and solutions in the spirit of the Guiding Principles.

In these discussions, JICA reported its efforts to apply one of the Guiding Principles (to "maximise the use of results information for leaning and decision-making"). In particular, JICA explained to OECD-DAC members how to apply lessons learned from evaluation results to ongoing similar projects by referring to examples in JICA Annual Evaluation Report 2019. JICA also shared examples of new evaluation methods, such as qualitative comparative analysis and satellite date usage*5, to illustrate how to collect and analyze evaluation data to draw useful lessons.

A culture of dialogue and collaboration with multilateral and bilateral agencies like this can facilitate international networking and human development. In addition, it is expected to improve the efficiency and effectiveness of project management by sharing knowledge and experience with other development partners and making an intellectual contribution to the global community.



An online discussion

*1: See P.54-55 for JICA's revised ex-post evaluation criteria.
*2: See P.40-41 for an overview of the qualitative comparative analysis (QCA).
*3: Refer to the OECD-DAC website for details (http://www.oecd.org/dac/results-development/results-community.htm).
*4: Refer to the OECD-DAC website for details (http://www.oecd.org/dac/results-development/guiding-principles-on-managing-for-sustainable-development-results.htm).
*5: For details, see P.36-37 (qualitative comparative analysis) and P.40-41 (use of satellite data) in Part II of JICA Annual Evaluation Report 2019 (https://www.jica.go.jp/english/our_work/evaluation/reports/2019/index.html).

Report on the 5th Asian Evaluation Week (AEW)

Asian Evaluation Week (AEW)

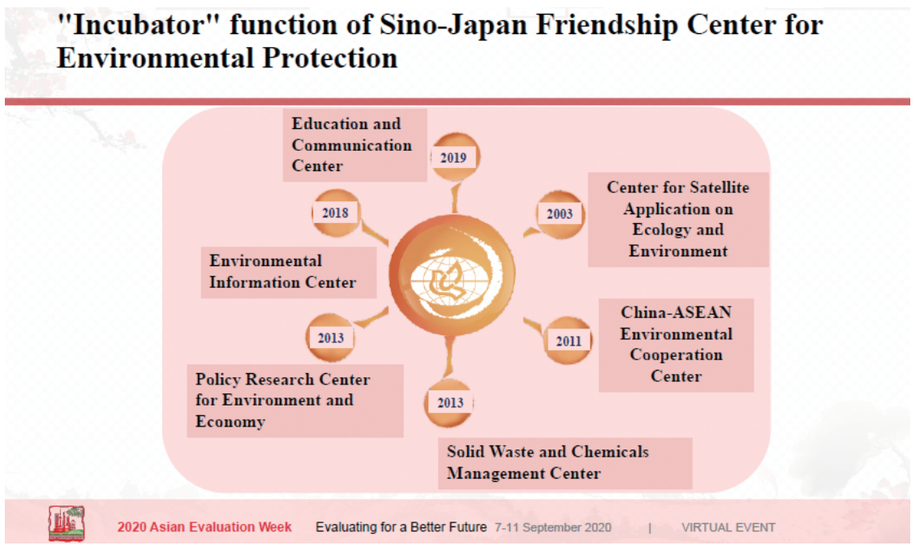
The Asian Evaluation Week (AEW) is an international event jointly organized by the Asian Development Bank (ADB) and the Chinese Ministry of Finance to share information on development evaluation in the Asia-Pacific region. Celebrating its fifth anniversary in 2020, the AEW was held online (with Zoom) from September 7 to 11, with the theme of "Evaluating for a Better Future," attended by government officials, international organization representatives, and evaluation experts from 112 countries and regions, mainly in the Asia-Pacific.

JICA's Session

JICA held an exclusive session for the third time in a row and presented the results of the 2019 Thematic Evaluation: Analysis on JICA's Cooperation in China for Environmental Management and Infectious Disease. The session started with a historical overview of Japan's official development assistance (ODA) to China, including a chronological review of projects from the beginning to the present day, followed by case studies in the above two fields of cooperation. The presentation in the environmental management field by a representative of the Chinese implementing agency (Sino-Japan Friendship Centre for Environmental Protection) discussed the medium- to long-term impact of major cooperation projects, especially the Center's role as an incubator in the environmental management field and as a platform for Japan-China cooperation and outlined prospects for future cooperation between the two countries after the end of Japan's ODA to China. The presentation in the infectious disease field described the outcomes of major cooperation projects, such as polio eradication, China-Japan Friendship Hospital, and infectious disease control projects, as well as their success factors and lessons learned for the future. , then, a video created by JICA's Evaluation Department was played outlining the Thematic Evaluation.

In the Q&A session, a representative of the Evaluation Department answered questions from the audience on JICA's project evaluation (e.g. JICA's evaluation criteria used to measure the impact of projects and JICA's efforts to strengthen the evaluation capacities of implementing agencies in developing countries). Then, the presenters discussed the outcomes of the long-standing cooperation between Japan and China, its contribution to controlling the COVID-19 pandemic, and prospects for future cooperation between the two countries. The presenter on behalf of the Shino-Japan Friendship Center for Environmental Protection told an anecdote about Japan-China cooperation during the COVID-19 pandemic (According to which, technical information on how to dispose of medical waste (e.g. needles) generated during testing and treatment was provided by Japanese project team members to the Center and translated and disseminated around China by the Center). These presentations and discussions enhanced the interest and understanding of the audience about the impact of the long-standing Japan-China cooperation and the future Japan-China relationship.

Thematic Evaluation: Analysis on JICA's Cooperation for Environmental Management and Infectious Disease in China Report URL
https://www.jica.go.jp/activities/evaluation/tech_ga/after/theme.html



(Presentation: Shino-Japan Friendship Center for Environmental Protection functioning as an incubator in the environmental protection field in China)

The Roles Played by ODA Projects for China in Environmental Management

Naoki Mori, Institute for Global Environmental Strategies

I worked with the State Environmental Protection Administration (SEPA: currently, Ministry of Ecology and Environment) in China from 2003 to 2006 as a JICA long-term expert with the aim of enhancing the collaboration between Japanese ODA loans and other Japanese environmental cooperation. As one of the important tasks, I conducted mid-term review to verify the expected environmental effects of the Environmental ODA Loan projects (Japanese ODA Loan projects aimed at environmental measures) being implemented at that time. Base on the results of the review, in the followings, I would like to touch on the impacts of the Environmental ODA Loans committed from the 1990s to the early 2000s on China's environmental policies and systems, as well as the role of JICA technical cooperation in strengthening the China's environmental policies and systems after 2007 when new commitment of the Japanese ODA Loans to China ended.

1. Impacts of Environmental ODA Loans on China's environmental policies and systems

(1) The effectiveness in local government's ability to manage environmental projects

The Environmental ODA Loan is considered to have enhanced the abilities of Chinese local governments to plan, implement, and manage environmental projects, and played a useful role in facilitating the implementation of the projects under the Loan. The Environmental ODA Loan has provided funds to the local governments, especially the municipal governments of cities designated as priority polluted areas, through the central government (SEPA) for the implementation of environmental projects. Thereby, many local governments followed the progress management methods demanded by the Japanese ODA Loans when implementing the funded environmental projects. Environmental ODA Loan projects have been implemented over 100 cities.

(2) The effectiveness in introduction of clean technologies

Environmental ODA Loan projects were not only about supporting technologies for treating pollutants emitted from factories, but also cleaner production technologies that suppress emissions of pollutants in the production process with energy-saving/resource-saving technologies, and technologies that enable the collection and reuse of valuable resources contained in waste. For example, in Benxi, Liaoning Province, which is a heavy industrial city that produces abundant iron ore and coal, I heard locally that an engineer from a company involved in the cleaner production project under the Japanese ODA Loan was qualified as a cleaner production consultant after leaving the company and diagnosed other companies.

(3) The effectiveness in environmental systems and standards

In the process of implementing Environmental ODA Loan projects, we could see some cases where the ODA Loan has also contributed to establishing institutional systems by local governments, which were indispensable for achieving sustainable development. Standards for the design and construction of environmental management related facilities, as well as operation technologies and accounting management were gradually introduced. For example, the central government enacted the Cleaner Production Promotion Law in 2001 recognized its effectiveness of technology. Furthermore, guidelines for selecting sewage treatment technologies for sewage treatment plants were also developed, as knowledge on their knowledge was accumulated and disseminated through implementation of the Environmental ODA Loan projects. In the guideline, there are included the experiences through environmental ODA loan projects such as in the region of North China where there is in a severe water shortage, sewerage treatment should be designed assuming the use of treated wastewater, and in other regions where more money can be invested, one should consider the digestion treatment of sludge, and the recovery and use of methane gas generated in the process to generate power.

(4) The effectiveness in environmental cooperation between cities in Japan and China

Environmental ODA Loans have had an effect in promoting and strengthening technical cooperation and exchanges between China and Japan at the city level. For example, the Chongqing Environment Model City Project played a role in complementing the technical cooperation between local governments regarding advanced natural gas utilization. Chongqing and Osaka conducted joint researches on various technologies, including gas supply technologies for automatic supply systems, combustion technologies for industrial fields such as boilers and furnaces, and detection technologies for gas leakage. In the Beijing Sewage Treatment Plant Construction Project, the Tokyo metropolitan government, a friendship city of Beijing, accepted trainees for water treatment and management techniques including how to start up a new big sewage treatment plant.

2. The role played by JICA technical cooperation in strengthening China's environmental policies and institutional framework

On January 1, 2015, the amended Environmental Protection Law (hereinafter referred to as the amended Environmental Law) entered into force in China. The amended Environmental Law called for ever stricter penalties for polluters of the environment. It also specified the responsibilities of the regulatory parties at the same time, which had not been included in the former law. At the same time, the subject of public interest proceedings against environmental pollution was clarified, and the disclosure of environmental information by the government and companies was institutionalized. Regulations have also been tightened in implementing the amended Environmental Law. From the viewpoint of promoting highly transparent administrative execution and mutual monitoring, the information of the Pollutant Discharge Permit is publicly disclosed on the Internet (the National Administration Information Platform) after the business application is approved.

JICA cooperated in preparation for the amended Environmental Protection Law. JICA conducted training in Japan in 2013, before the Standing Committee of the National People's Congress (NPC), the legislative body of China, held the second meeting to deliberate on the law amendment. Eleven members from the Administrative Law Office of the NPC Legislative Affairs Commission and the Ministry of Environmental Protection who were involved in the amendment of the Environmental Protection Law attended the training. The training emphasized philosophy of the Environmental Law, including importance of environmental rights, the impact of lawsuits on environmental policies, settlement of environmental pollution disputes, and the relationship between local governments and companies were introduced. Chinese side expressed, "We would like to apply what we learned from the training, in particular, background of local governments and companies' voluntary efforts in environmental protection, the active participation of citizens, and the government's incentive policies for enterprises, in order to strengthen the environmental protection measures in China."(JICA China Office News, April 2013)

3. Future Japan-China environmental cooperation

The strengthening of environmental regulations by the Chinese government, which could have been supported through international cooperation including Japan, can have a negative impact on business activities such as adding costs. However, the higher requirement of environmental measures will create opportunities in environmental businesses. As a matter of fact, from the perspective of cooperation between Japan and China in the environmental field, we can observe that business sector has been assuming a leading role. As the environmental businesses in Japan and China continue to grow, there are opportunities for both governments to cooperate in developing a kind of framework for enhancing green finance taking advantage of the common ground of SDGs and Paris Agreement. I believe it will become a promising area for future Japan-China environmental cooperation.

Revisions of Project Evaluation Criteria
- To Usher in a New Era of Project Evaluation for JICA -

JICA had evaluated Technical Cooperation, ODA Loan, and Grant Aid projects in a consistent manner across these three types of assistance based on the Five DAC Criteria since FY2009, and it reviewed its evaluation criteria for the first time in a decade since a new JICA was established, in part because the DAC evaluation criteria were revised.

1 Background and purpose of the revisions

1.1 Revisions to the DAC evaluation criteria

The Development Assistance Committee of the Organization for Economic Cooperation and Development (OECD-DAC) published "Principles for Evaluation of Development Assistance" in 1991 to set out five evaluation criteria (i.e. relevance, effectiveness, impact, efficiency, and sustainability), which were accepted as a global standard for evaluation criteria. In 2015, UN Member States adopted the 2030 Agenda for Sustainable Development: Transforming Our World*1 and set Sustainable Development Goals (SDGs)*2 to be achieved by 2030 based on the principle of "leave no one behind," which triggered a review of evaluation criteria. As a result of discussions, the Network on Development Evaluation (EvalNet) under the OECD-DAC agreed to add a new criterion (coherence) and redefine the existing evaluation criteria (to reflect the principles of the SDGs) at the end of 2019.

1.2 JICA's objectives for revising its project evaluation system

JICA's objectives for revising its evaluation criteria were to clearly reflect the evaluation perspectives of the SDGs, which are also aligned with JICA's vision, and to promote synergies and interlinkages with other development partners. The revised DAC evaluation criteria were also incorporated into JICA's evaluation criteria because of their consistency with these objectives. Another objective was to make the evaluation system more flexible for diverse project forms and contents in order to evaluate the appropriateness and timeliness of decisions made and actions taken if environment changes during project implementation and identify useful solutions to increase the effectiveness of development interventions. Moreover, JICA intended to make sharper distinctions in ex-post evaluation ratings for each of the criteria (sub-ratings) because of the tendency to rate many of the projects as "fair" on a three-level scale of high, fair, and low. In light of these objectives, JICA's evaluation criteria were reviewed through discussions with various internal and external stakeholders, including external experts and development consultants specialized in project evaluation, and revised as follows.

*1: To obtain the English version, go to https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E. The provisional Japanese version translated by the Japanese Ministry of Foreign Affairs can be found on https://www.mofa.go.jp/mofaj/files/000101402.pdf.
*2: Reference: (JICA's Position Paper on SDGs) Toward Achieving Sustainable Development Goals (SDGs): (https://www.jica.go.jp/english/ir/bonds/c8h0vm0000awltie-att/bonds_01.pdf)

2 Revisions to ex-post evaluation criteria

2.1 Integrating fairness, human rights, gender equality, etc. in criteria (to reflect the principles of the SDGs)

Each criterion was redefined to reflect the principles of the SDGs. As for relevance, the perspective of beneficiaries was added to evaluate considerations for vulnerable people and equitability in project design. Effectiveness was redefined to include any differential results across groups in its assessment, to evaluate the distribution of development benefits, including the gaps and the equitability perspective across the beneficiaries. The definition of impact was broadened to include human rights and well-being in its assessment. The definition of sustainability was also widened to include resilience to future risk in its assessment.

2.2 Adding a new evaluation criterion of coherence (to emphasize synergies and interlinkages with other development partners)

The DAC revised its evaluation criteria to include "coherence" (the compatibility of the intervention with other interventions in a country, sector, or institution). This new criterion had been partially covered by the existing criterion of relevance before the revision; however, according to the new definitions, the appropriateness and consistency of project design with the needs of the recipient country are to be assessed under relevance, and the synergistic effects/ mutual relations with JICA's other projects is to be evaluated under coherence.

It should also be noted that coherence assessment looks into whether collaboration produces specific achievement so that projects will not be highly rated just because they are implemented simultaneously with other projects or alignment of the SDGs. This means that JICA will be required to more strategically solidify assistance policies for partner countries and solidly grasp international trends, based on which JICA will be required to consider cooperation/coordination/role-sharing with other donors from project formulation and planning to implementation.

2.3 Adding non-scored items: "performance" and "additionality"

The evaluation criteria had mainly focused on the assessment of development effects before revised, but their definitions were broadened to include performance during project implementation (proper and timely responses to various changes in project circumstances) and additionality (JICA's unique values and innovative approaches, etc.) in the scope of assessment. Because it would be difficult to rate them objectively, they have been categorized as non-scored items so that they will not be rated or included in the overall ratings.

Table 1 Definitions of six new evaluation criteria

(The underlined definitions for existing criteria and the criteria marked as "new" are added in the revision process.)

Criterion title	Definitions of new six evaluation criteria
Relevance	◆Validity with project implementation (with the recipient country's development plans, development needs, social needs, and beneficiaries' needs in the target area) ◆Whether the project is designed to focus on "beneficiaries", give consideration to vulnerable people, and ensure fairness and whether the project is adaptable enough to remain relevant if circumstances change during implementation ◆Appropriateness of the project plan and logic of approach
Coherence (new)	◆Consistency with development assistance policies of the Japanese Government and JICA ◆Synergies effect/mutual relations with JICA's other projects (Technical Cooperation, ODA Loan, Grant Aid, etc.) ◆Complementarity, harmonization, and collaboration with other assistance/projects in Japan, other development organizations, etc.; consistency with global frameworks (e.g. SDGs and other international targets and initiatives) and international norms and standards; and producing expected achievement in the project plan
Effectiveness	◆The degree of achievement of target level in target year of expected project outcome (including the usage of facilities and equipment) and any differential results across the groups
Impact	◆Positive and negative indirect and long-term effects (systems and norms, people's well-being, human rights, gender equality, and the environment)
Efficiency	◆Comparison of planned and actual project inputs, project period, and project cost
Sustainability	◆Outlook on sustainability of effects that are realized by the project ◆Institutional/organizational sustainability (organizational structures and personnel assignment), technical sustainability, financial sustainability (availability of funds to cover the operation and maintenance costs), environmental and social sustainability, resilience to risks, and operation and maintenance conditions

Table 2 Definitions of two non-scored items

Criterion title	Definitions of two non-scored items
Performance (New)	Proper and timely responses to various changes in project circumstances
Additionality (New)	JICA's unique approaches, values, and elements (inputs) that could be provided because of JICA, and innovative approaches

2.4 Shifting to a four-level sub-rating system and revising the flowchart

The sub-rating system was changed from a three-level to a four-level scale to make sharper distinctions, improve the accuracy of statistical trend analysis, and make it easier to identify challenges and get insights on project design and implementation. Moreover, given different levels of importance among the criteria, the overall rating process was revised to put greater emphasis on the combination of "effectiveness" and "impact", both of which show project results and on "sustainability" to ensure the continuation of such results.

2.5 Summary

Thus, the evaluation criteria were revised to reflect the principles of the SDGs in the achievement and impact at the level of each project. Moreover, a new criterion of coherence was added to make project design and implementation more strategic.

Advisory Committee on Evaluation

JICA set up an Advisory Committee on Evaluation to seek advice on project evaluation to improve the quality of evaluation, strengthen feedback of evaluation results, and ensure accountability. The Committee consists of international cooperation experts and evaluation specialists from various sectors, including academia, private sector groups, NGOs, media, and international organizations.

The Committee holds discussions, exchanges views, and makes recommendations on JICA's project evaluation efforts and responses to recommendations and advice previously made by the Committee.

Table List of Committee Members (as of February 2021)

Chairperson	Motoki Takahashi	Professor, Graduate School of Asian and African Area Studies, Kyoto University
Acting Chairperson	Yuriko Minamoto	Professor, Graduate School of Governance Studies, Public Policy School, Meiji University
Members	Jun Ishimoto	Vice-Chairman, Engineering and Consulting Firms Association, Japan (ECFA)
	Katsuji Imata	Board Chair, CSO Network Japan
	Mariko Kinai	National Director, World Vision Japan
	Takashi Kurosaki	Professor, Institute of Economic Research, Hitotsubashi University
	Satoko Kono	President, ARUN LLC
	Tesuo Kondo	Director, United Nations Development Programme (UNDP) Representation Office in Tokyo
	Reiji Takehara	Director, International Cooperation Bureau, Keidanren (Japanese Business Federation)
	Mika Funakoshi	Journalist

Discussions on revisions of JICA's evaluation criteria

In FY2020, the Committee mainly discussed revisions of JICA's evaluation criteria. Based on this discussion, JICA refined the evaluation criteria in the finalization process. These new criteria will be applied to projects to be evaluated from FY2021 onwards (See pp. 54-55 for details of JICA's revised evaluation criteria).

Key comments from Committee Members are summarized below.

★ A new criterion of "coherence" will be added to the evaluation criteria to require a more careful assessment of the consistency of each project with various policies, including Japan's development cooperation policies, the Official Development Assistance Charter, and the SDGs. It will be important to consider how to adapt JICA projects to recipient countries by taking into account their development strategies and plans and different stakeholders' needs. This will affect how Japan will support development in developing countries. I would like to suggest that Japan's official development assistance should stick to its principle of contributing to the benefits of recipient countries after the evaluation criteria are revised.

★ The addition of "coherence" to the evaluation criteria will make the definition of the existing criterion of "relevance" much clearer. Coherence assessment will enable ex-post evaluators to draw appropriate and detailed lessons regarding project design and to examine and evaluate the effectiveness of the project's interventions more easily. This revision should be highly appreciated.

★ The draft of revisions to the evaluation criteria has been carefully prepared and seems to particularly emphasize the sustainability of outcomes. In addition, some good attempts are made to elaborate the evaluation criteria, such as shifting the criteria rating (sub-rating) system from a three-level to a four-level scale. Although those who work to the full potential to deliver outcomes should be highly appreciated, given that only projects that "achieved better outcomes than planned" can receive the highest rating of 4 under the combination of "effectiveness" and "impact", attention should be paid so that no excessive efforts will be made to deliver greater outcomes than planned, because a particular emphasis is placed on sustainability in the present times.

★ New evaluation items of "adaptation/contribution" and "added/created value" have been added in the revision process though they are not included in overall ratings. These items are important because they are directly related to the success and added-value of other future projects. Going forward, these items should be properly assessed to draw lessons and recommendations so that they can be compiled and organized within the organization and applied and reflected in future projects. I think this is substantial and more important than reflecting overall ratings and scoring marks.

★ When sharing the results of ex-post evaluations, they should be correctly understood by key recipients in developing countries. To this end, it will be essential to develop human resources and enhance their capacity to appropriately understand the definitions of the revised criteria. I would like to suggest that necessary budget should be allocated to promote and facilitate such capacity building. Moreover, Japanese citizens and taxpayers should be able to access easy-to-understand explanations of evaluation results as well as changes made by JICA projects to developing countries and improvements made in the quality of people's life there.

Performance evaluation

Following the Act on General Rules for Incorporated Administrative Agencies, JICA is obliged to prepare a medium-term plan for achieving the medium-term objectives assigned by the competent minister, evaluate the annual plan yearly and conduct self-evaluation, as distinct from individual project evaluations. Accordingly, JICA has conducted performance evaluation and published the results since 2003, with the current medium-term plan covering the period from FY2017 to FY2021. JICA has also established an advisory committee on performance evaluation separating from the Advisory Committee on Evaluation.

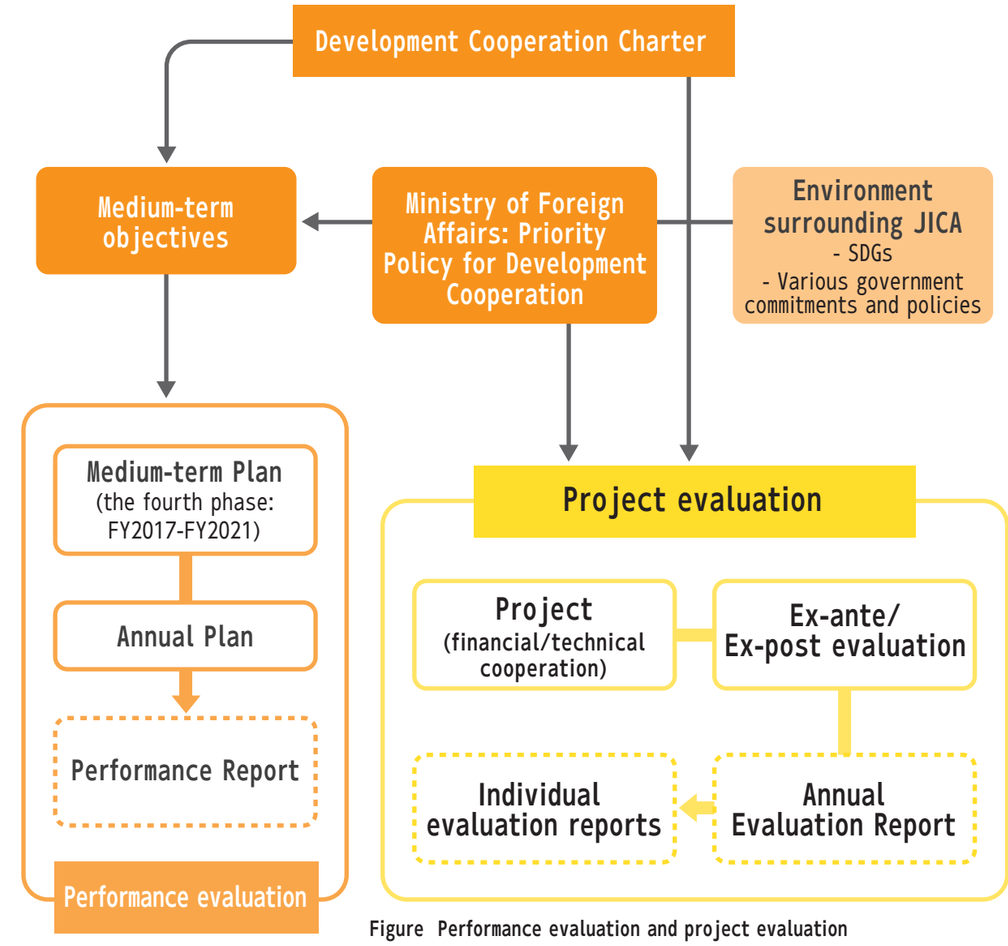


Figure Performance evaluation and project evaluation

Link to relevant reports (in Japanese)→ https://www.jica.go.jp/disc/jisseki/index.html

Statistical Analysis of Ex-post Evaluations

JICA has been engaging in statistical analysis of ex-post evaluations to determine project performance trends and gain insights from the ratings to improve project design and implementation.

▸ Statistical Analysis Overview

■Background

JICA has conducted ex-post evaluations based on coherent methodologies and criteria, including the Five OECD-DAC Criteria, for all three assistance schemes of ODA Loan*1, Grant Aid and Technical Cooperation. As of the end of February 2021 the number of ex-post evaluations had reached 2,006. This statistical analysis aims to analyze past those ex-post evaluations quantitatively to determine relevant trends and gain insights to improve the project design and implementation.

■Target of this statistical analysis

This statistical analysis was conducted on 1,249 evaluations, comprising ODA Loans of external evaluation*2 from FY2003 to 2020 and Grant Aid and Technical Cooperation of external evaluations*3 from FY2009 to 2020 (i.e. 762 ODA Loans, 317 Grant Aid and 170 Technical Cooperation projects) as well as 757 internal evaluations (239 Grant Aid and 518 Technical Cooperation projects) from FY2010 to 2020. The ratings were analyzed for a total of 1,984 projects (i.e. 762 ODA Loans, 556 Grant Aid and 688 Technical Cooperation projects) excluding 22 projects without a sub-rating (i.e. 13 ODA Loans, four Grant Aid and five Technical Cooperation projects).

■Method

Of all 2,006 evaluations shown in Figure 1 as the total evaluations per fiscal year, the overall distribution and trends in regions, sectors and schemes of 1,984 evaluations with overall ratings are visualized by applying the statistical method described.

■Note

The rating system helps assess the performance of development projects and provides insights that shed light on the current situation and possible improvement approaches. The system is, however, subject to the following constraints: (1) it is based on the assessed scope of the DAC evaluation criteria and does not evaluate aspects like donors' roles and contributions; (2) the difference is not fully adjusted, relative to various issues encountered during the projects, such as the nature of assistance or the environments where the projects were implemented (e.g. fragile state); and (3) it assesses only the results of past activities rather than ongoing endeavor or potential outcomes. Therefore, the rating itself cannot capture everything which happened in development projects.

*1: ODA Loans include Yen Loan and Private Sector Investment Finance
*2: External evaluation target projects with assistance of one billion yen or more and those likely to provide useful lessons learned.
*3: Ex-post evaluations of Yen Loans conducted by the former Japan Bank for International Cooperation and rated by their evaluation results.

▸ Analytical Result (Descriptive Statistics): Trends and Distributions of External and Internal Evaluations

■Number of evaluations

As shown in Figure 1, the rating system was first adopted to evaluate ODA Loans in FY2003, all of which were externally evaluated (although ex-post evaluations of ODA Loan projects took place before FY2002, they were not rated and mainly done by internal evaluation). External and internal evaluations were introduced to Grant Aid and Technical Cooperation projects from FY2009 and 2010, respectively.

To date, a total of 762 ODA Loan projects (only externally evaluated), 556 Grant Aid projects (317 external and 239 internal evaluations) and 688 Technical Cooperation projects (170 external and 518 internal evaluations) have been evaluated. The ratio of each scheme relative to all ex-post evaluations were: ODA Loans (38%), Grant Aid (28%) and Technical Cooperation (34%). Meanwhile, the ratio of internal evaluation in Grant Aid and Technical Cooperation projects were 239 out of 556 projects (43%) and 518 out of 688 projects (75%), respectively, representing relatively high percentages of Technical Cooperation projects.

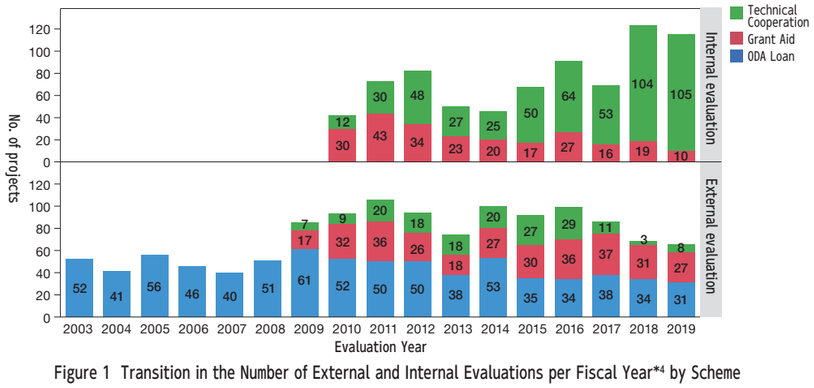


Figure 1 Transition in the Number of External and Internal Evaluations per Fiscal Year*4 by Scheme

*4: Evaluation Year shows the fiscal year of ex-post evaluation commencement

■Interrelation between the scheme and region/sector

This year also saw a four-grade overall rating (A to D: A: highly satisfactory; B: satisfactory; C: partially satisfactory, and; D: unsatisfactory) converted into 4 to 1 point to visualize the characteristics of evaluation results by region and scheme for convenience. Figures 2 and 3 show the average points score (95% confidence interval) and variation range of the overall rating per region*5 and sector*6. Each table also vertically shows the average (dots on the center of the bars) and variation range (up/down variation from average) by region or sector while the horizontal red line shows the average of all projects (3.04).

These figures only applied to projects for which an ex-post evaluation had been completed at the time of aggregation and readers should note that they exclude ongoing or completed projects for which ex-post evaluations not yet undertaken.

The average overall rating of schemes by region suggests that the range of variation, namely 157 to 286 results for Southeast Asia, South Asia and East Asia are relatively small (no variation of ODA Loan in the Pacific because there was only one case in the region). When including these ranges as part of the average overall rating, Africa shows fewer points overall although it varies by scheme. On the whole, the Asian region shows more or less higher points than the overall average while Africa and Latin America show lower. This suggests that, since a recipient country requires economic and governance resilience in implementing and supervising ODA Loan projects, many African and Latin American countries are vulnerable to such resilience.

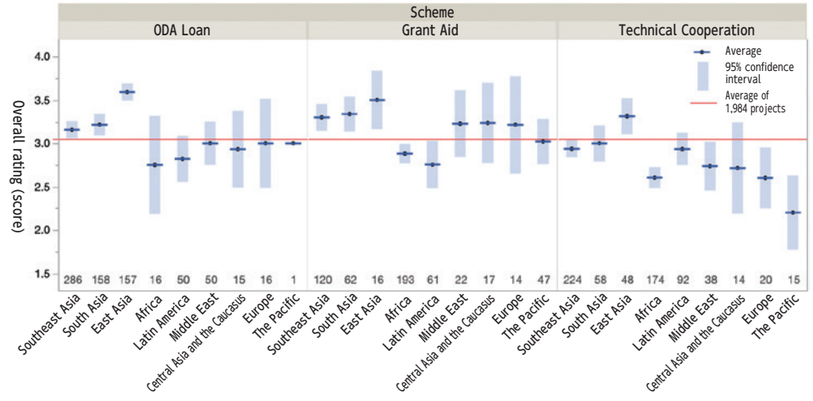


Figure 2 Distribution of overall rating (score) per region per scheme

Grant Aid shows higher points than the other two schemes except in Africa and Latin America. This is attributable to the fact that project results vary little, since JICA oversees the project implementation and supervision and the facilities and equipment provided are responsibly procured by the Japanese side. While Grant Aid shows higher points than the overall average in many regions, it shows lower in Latin America and Africa as in the case of ODA Loans. Africa shows the lowest points for ODA Loan and Technical Cooperation while Latin America showed the lowest for Grant Aid.

As for Technical Cooperation, Latin America and Africa are conversely ranked slightly higher. Although Southeast Asia shows higher points than the overall average in ODA Loan and Grant Aid, the region is lower in the Technical Cooperation project.

Accordingly, the average overall rating of schemes by sector suggests that ODA Loans have points totals higher than average on the whole and the health and social security sectors, in particular, show the highest points totals. In Grant Aid, the industry/trade sectors are significantly low but with a larger range of variation, given the low number of projects (five) and the fact that their evaluation results vary. The natural resources/energy sectors are rated high in Grant Aid, but significantly low in Technical Cooperation. Conversely, the industry/trade sectors have lower points, but points totals peak for Technical Cooperation.

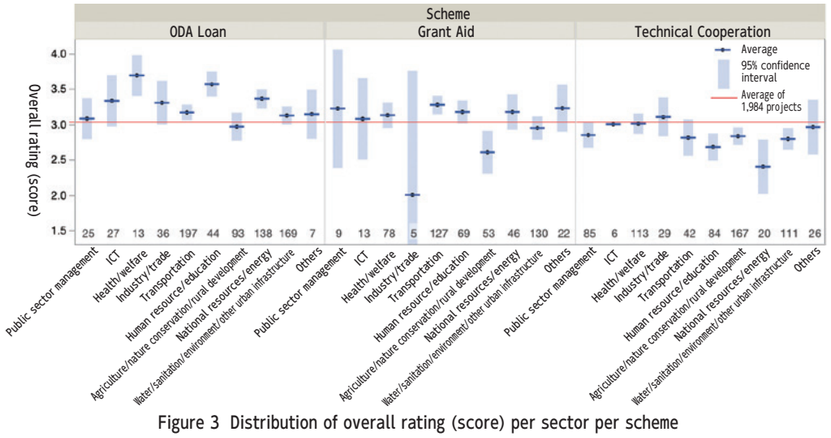


Figure 3 Distribution of overall rating (score) per sector per scheme

Although the department assigned to manage projects is aware that evaluation results by scheme vary according to the region and sector involved, depicting the information with visually comparable data as shown will pave the way to consider regional and thematic strategies going forward. However, to identify the factors affecting project evaluation results more accurately, various regression models and other statistical methods must be applied and multiple background factors adjusted and further analyzed. Where limitations apply, such as lacking a sample size for quantitative analysis, JICA examine issues at project levels and how best to solve them by also utilizing the qualitative comparative analysis (QCA) method, which filters cases and directly compares factors that are likely related to project effects, as well as quantitative approaches.

*5: Classification of sectors is based on those applied in statistical analysis.
*6: Each region includes the following countries: **Southeast Asia:** Indonesia, Cambodia, Thailand, the Philippines, Vietnam, Malaysia, Myanmar, Laos and East Timor; **Oceania:** Kiribati, Samoa, Solomon, Tuvalu, Tonga, Vanuatu, Papua New Guinea, Palau, Fiji, Marshall Islands and Micronesia; **East Asia:** Republic of Korea, China and Mongolia; **Central Asia and the Caucasus:** Azerbaijan, Armenia, Uzbekistan, Kazakhstan, Kyrgyz, Georgia, Tajikistan and Turkmenistan; **South Asia:** Afghanistan, India, Sri Lanka, Nepal, Pakistan, Bangladesh, Bhutan and Maldives; **Latin America:** Argentine, Antigua and Barbuda, Ecuador, El Salvador, Guyana, Cuba, Guatemala, Grenada, Costa Rica, Colombia, Jamaica, Suriname, Saint Christopher and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Chile, Dominica, Dominican Republic, Nicaragua, Haiti, Panama, Paraguay, Barbados, Brazil, Belize, Peru, Bolivia, Honduras and Mexico; **Africa:** Angola, Uganda, Eswatini, Ethiopia, Eritrea, Ghana, Cabo Verde, Gabon, Cameroon, Gambia, Guinea, Guinea-Bissau, Kenya, Côte d'Ivoir, Comores, Democratic Republic of Congo, Zambia, Sierra Leone, Djibouti, Zimbabwe, Sudan, Seychelles, Senegal, Tanzania, Togo, Nigeria, Namibia, Niger, Burkina Faso, Burundi, Benin, Botswana, Madagascar, Malawi, Mali, Mauritius, Mauritania, Mozambique, Rwanda, Lesotho and Republic of South Africa; **Middle East:** Algeria, Iran, Iraq, Egypt, Saudi Arabia, Syria, Tunisia, Palestine, Morocco, Jordan and Le banon; and **Europe:** Albania, Ukraine, Croatia, Kosovo, Slovakia, Serbia, Turkey, Bulgaria, Poland, Bosnia and Herzegovina, Moldova, Montenegro, Romania and Republic of North Macedonia.

Analytical results (multivariate analysis): Collaboration between Grant Aid and Technical Cooperation projects and its interrelation with Effectiveness/Impact

JICA examines the interrelation between ex-post evaluation results and their variations using regression analysis and selecting variations describing ex-post evaluation results (overall rating and Five DAC Criteria, i.e., relevance, effectiveness and impact, efficiency, and sustainability) of past projects. Financial cooperation projects (Grant Aid and ODA Loan) were analyzed*1 in FY2017 and 402 Technical Cooperation projects were analyzed in FY2018. In the previous fiscal year, evaluation results differed between those projects managed and supervised by the Headquarters and Overseas Office. This year introduces collaboration between Grant Aid and Technical Cooperation projects and an interrelation between effectiveness and impact, in which statistically significant differences*2 were consistently confirmed in multiple regression models and which were considered linked to discussions on systematic improvement in future.

Effect of collaboration between financial and technical cooperation

To use facilities effectively, including operating and maintaining infrastructure after it was constructed through financial cooperation, providing intangible support via technical cooperation was considered beneficial, to further achieve outputs and make the project more sustainable. Accordingly, there are many cases where financial and Technical Cooperation projects are implemented in the same sector and country by overlapping their project period. Since the effect had not been quantitatively analyzed, JICA analyzed the existence of collaboration and any change in their rating of effectiveness and impact according to the collaboration timing by focusing on Grant Aid projects for which it was relatively easier to confirm/verify the original data and Technical Cooperation projects implemented almost simultaneously.

Data used for the analysis

The data was taken from 471 Grant Aid projects with ex-post evaluations conducted after 2009*3. When technical projects implemented in the same country and sector*4 within three years before or after the Grant Aid project period are considered to constitute "collaboration", approximately 40% of Technical Cooperation projects apply to collaboration (Figure 1).

Compared to the Grant Aid project period shown in the middle of Figure 1, details of the timing for Technical Cooperation projects constituting "collaboration" were compiled and categories as Types 0 to 5 (Figure 2).

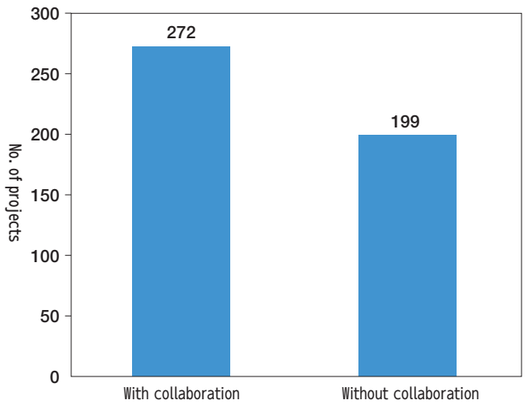
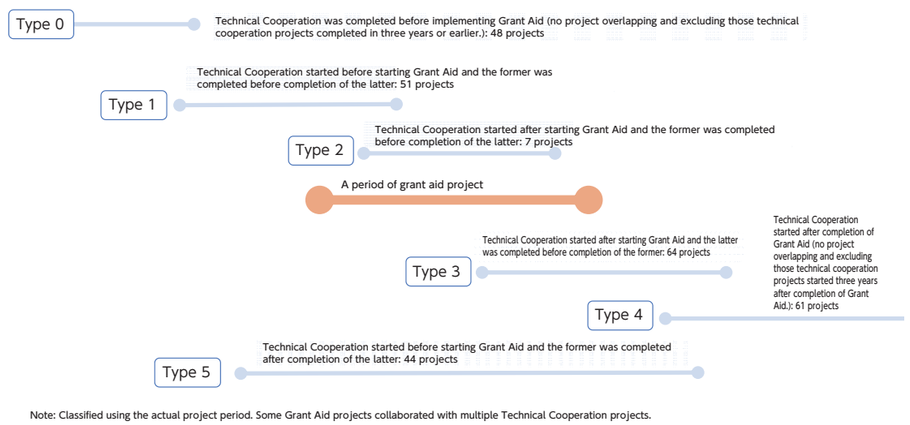


Figure 1 The number of Grant Aid projects with/without collaboration with Technical Cooperation projects (471 projects in total)



Note: Classified using the actual project period. Some Grant Aid projects collaborated with multiple Technical Cooperation projects.

Figure 2 Types of collaboration between Grant Aid and Technical Cooperation

*1: Refer to P.57-58 of the JICA Annual Evaluation Report 2017.
*2: Multiple models controlling variations related to the country, sector and project evaluation rating simultaneously, showing significance level of $p<0.05$ consistently.

Analytical result

The analytical result did not show any relevance with effectiveness/impact, sustainability and other evaluation criteria when focusing only "collaboration" alone. Meanwhile, effectiveness/impact*5 was shown high when dividing collaboration by timing (refer to Figure 2) and a pattern categorized as Type 1 (Technical Cooperation project was started before starting a Grant Aid project and the former was completed before completion of the latter) ($p<0.05$) (Figure 3).*6

Type 1 is a pattern whereby a Technical Cooperation project was started before introducing facilities constructed or equipment procured by a Grant Aid project. Materials and equipment were provided under the Grant Aid project after the capacity development is done by Technical Cooperation project. In other words, since the required human resources were nurtured to some extent during the Technical Cooperation project, the counterpart had the capacity to utilize materials and equipment provided when the facility or equipment launched by the Grant Aid project. Many ex-post evaluation reports related to Type 1 indicated that counterpart capacity was enhanced by Technical Cooperation before providing Grant Aid, which helped achieve the project effect high. This analytical result is consistent with the perceptive hypothesis that it is preferable to develop capacity of counterpart before facilities and equipment are introduced under Grant Aid.

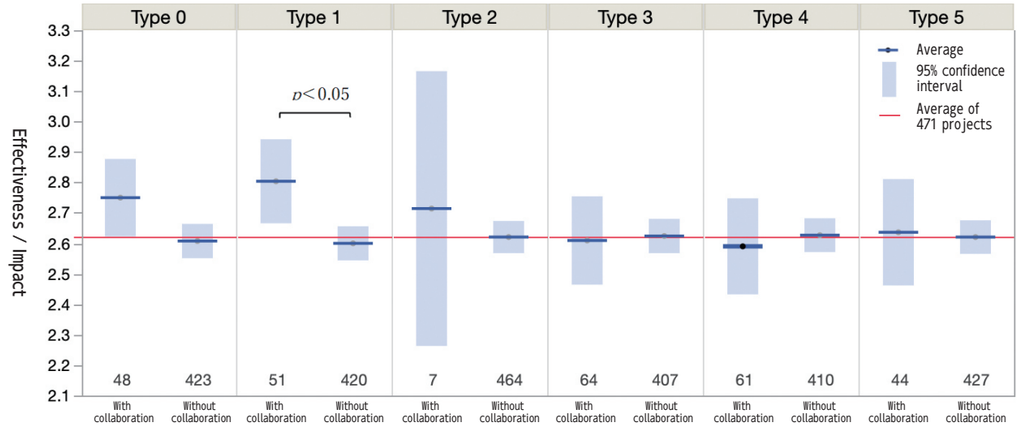


Figure 3 Collaboration and effectiveness/impact by type (mean value and its 95% confidence interval

Summary

The analysis revealed that those Grant Aid projects would have high effectiveness/impact when Technical Cooperation projects were implemented in advance, like Type 1 among multiple collaboration patterns, and completed before providing their materials and equipment. Since differences emerged not in terms of existence but in terms of timing of collaborative Technical Cooperation projects, it suggests that when such collaborative projects are implemented is key, not just whether such collaboration exists.

However, this analysis categorized the collaboration cases by timeline and examined them quantitatively among various categorizing methods, biased by the definition of collaboration. As described above, no causal relationship could yet be confirmed. Moreover, although the collaboration result was also attributed to sustainability in the hypothesis, no quantitative proof of the same emerged. Since it was based on the current number of cases and given that the number of cases was limited due to classification, the quantitative analysis may only be applicable for determining interrelation with effectiveness/impact. Although such criteria may be clarified to a greater extent if the number of target cases increases, the number does not actually increase immediately, implying a limitation of the quantitative approach. Going forward, by applying those approaches based on a small number of cases, including the qualitative comparative approach (QCA*7) and other methods focusing on individual patterns such as the sector and project purpose, more suggestions are expected to be obtained.

In response to recently revised evaluation criteria, to which COHERENCE (targeting a development effect via collaboration with different schemes) was added, the need and importance to formulate and implement projects strategically was reaffirmed. Project effects are more likely to be achieved by examining feasibility and strategically planning and implementing the timing of financial and Technical Cooperation projects, rather than simply collaborating during the same period. To further clarify the impact of collaboration with different schemes on the project effects, JICA will promote evaluations utilizing statistical analysis and a qualitative approach.

*3: The target projects were launched between 2001 and 2013 and the ex-post evaluations were conducted between FY2009 and FY2017.
*4: Technical Cooperation projects and Technical Cooperation projects for Development Planning. Projects involving Grassroots Technical Cooperation, Follow-up cooperation, Acceptance of Training Participants and Dispatch of Experts are not included.
*5: Scoring: High: 3 points, Medium: 2 points and Low: 1 point
*6: Type 1 saw significant differences consistently observed in multiple models ($p<0.05$ or <0.01). Meanwhile, although significant differences emerged in some models, Type 0 was not considered significant, since the figures were inconsistent.
*7: Refer to Qualitative Comparative Analysis (QCA) on P.40.

Guide to JICA's Website

■JICA Homepage

Japanese
▸https://www.jica.go.jp/index.html

English
▸https://www.jica.go.jp/english/index.html

■Evaluation

Japanese
▸https://www.jica.go.jp/activities/evaluation/index.html

English
▸https://www.jica.go.jp/english/our_work/evaluation/index.html

☐Find out more on JICA's evaluation system

○Overview
▸https://www.jica.go.jp/english/our_work/evaluation/about.html

○JICA's Project Evaluations (Pamphlet)
▸https://www.jica.go.jp/english/our_work/evaluation/c8h0vm000001rdg1-att/evaluations_01.pdf

○Project Progress Monitoring at Implementation Stages
▸https://www.jica.go.jp/english/our_work/evaluation/oda_loan/review/about.html

○Pre-Implementation Stage (Ex-ante Evaluation)
▸https://www.jica.go.jp/english/our_work/evaluation/oda_loan/economic_cooperation/about.html

○Thematic Evaluation, etc.
▸https://www.jica.go.jp/english/our_work/evaluation/tech_and_grant/program/index.html

○Post-Implementation Stage
▸https://www.jica.go.jp/english/our_work/evaluation/tech_and_grant/project/ex_post/about.html

○Advisory Committee on Evaluation
▸https://www.jica.go.jp/english/our_work/evaluation/advisory/index.html

○Evaluation Guides
▸https://www.jica.go.jp/english/our_work/evaluation/tech_and_grant/guides/index.html

☐Search for Ex-post Evaluations (Ex-post Evaluation Report after 2008)

○Search for project evaluations
▸https://www2.jica.go.jp/en/evaluation/index.php

☐Read Past JICA Annual Evaluation Reports

○JICA Annual Evaluation Reports
▸https://www.jica.go.jp/english/our_work/evaluation/reports/index.html

■ODA Visualization Website (in Japanese)

▸https://www.jica.go.jp/oda/index.html

■JICA Library

▸https://www.jica.go.jp/english/about/organization/library/index.html

■JICA Ogata Sadako Research Institute for Peace and Development

▸https://www.jica.go.jp/jica-ri/index.html

○Publication

▸https://www.jica.go.jp/jica-ri/publication/index.html

JICA Annual Evaluation Report 2020 is also available on our website:

▸https://www.jica.go.jp/english/our_work/evaluation/reports/2020/index.html