JICA's Project Evaluation System and Its Features

To improve JICA's projects and ensure accountability to stakeholders, JICA conducts project evaluation and comprehensive and cross-sectoral thematic analysis.

Planning stage (ex-ante evaluation)

Plan

At the planning stage, an ex-ante evaluation is conducted to verify the needs for the project and to set targets for outcomes. During the ex-ante evaluation, JICA confirms the priority and necessity of the project, verifies the contents and expected effects of cooperation and defines indicators used to measure the effectiveness before implementing the project, in conformity with the international standard, the DAC evaluation criteria (refer to **p.11**). At this stage, JICA also confirms whether the results of reviews of environmental and social considerations, as well as lessons learned and recommendations from past projects, are appropriately reflected.

Utilization of results:
The results of the ex-ante evaluation are reflected in the decision on whether or not to implement the project, as well as in the contents of the project plan.
For details of ex-ante evaluation,refer to **[Pre Implementation Stage Evaluation (Ex-Ante Evaluation)]**.

Action

Feedback stage

JICA promptly utilizes the lessons learned and recommendations obtained in the process from the ex-ante evaluation to the ex-post evaluation to improve ongoing projects and follow up on past projects as required, as well as drawing on this information to develop and implement similar projects in the future. Good practices where projects were implemented efficiently and effectively by utilizing lessons learned from past similar projects, as well as practices where lessons learned are expected to be applied to similar projects in progress or in the future, are highlighted on **p. 39**.

JICA's project evaluation system can be summarized in the following five features: (1) consistent evaluation throughout the project's PDCA cycle; (2) coherent evaluation methodologies and criteria across the three cooperation schemes (Technical Cooperation, Finance and Investment Cooperation, Grant Aid); (3) comprehensive and cross-sectoral analysis based on thematic evaluation; (4) ensuring objectivity and transparency; and, (5) emphasizing application of evaluation results.

For details, refer to **[Project Evaluation at JICA]**.

Implementation stage
(monitoring)

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 activities are progressing as planned and whether outcomes have been properly achieved, as well as making course corrections as necessary.

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, and revisions to the plan are made as necessary to accommodate various changes during implementation.
For details on monitoring, refer to **[Facilitating Project Progress in the Implementation Phase (Monitoring)]**.

Do

Post-implementation stage
(ex-post evaluation)

Check

At the post-implementation stage, an ex-post evaluation is conducted. From the perspective of the DAC evaluation criteria, JICA especially focuses on ascertaining whether the activities conducted through the project were appropriate for achieving the intended development effects and which of those effects were actually achieved.

Utilization of results:
Useful recommendations, lessons learned, and good practices are extracted to further improve future projects.
For details of ex-post evaluation, refer to **[Post-implementation State Evaluation (Ex-post Evaluation)]**.

→ Evaluation results are published on the JICA website

Reference link: **https://www.jica.go.jp/english/activities/evaluation/index.html**

Overview of the Project Evaluation System

In principle, JICA conducts evaluations for all projects costing 200 million yen or more[1], from pre-implementation to post-implementation through consistent methods and perspectives across the three assistance schemes (Finance and Investment Cooperation, Grant Aid, and Technical Cooperation). Once a project is completed, JICA conducts an ex-post evaluation, either through a third-party (external evaluation) or through a JICA overseas office (internal evaluation). By adopting a basic framework that is commonly applicable to different schemes and evaluators, JICA strives to conduct evaluations and utilize evaluation results in a coherent manner.

JICA's Project Evaluation Rating System

JICA's project evaluations are based on the evaluation standards set by the Organisation for Economic Cooperation and Development's (OECD) Development Assistance Committee (DAC)[2], which constitute an internationally accepted ODA evaluation methodology. JICA's own rating system is used to conduct project evaluations in a uniform manner. In response to the December 2019 revision of the DAC evaluation criteria, JICA's project evaluation criteria have also been revised. JICA assigns four-level grades (sub-ratings: ④③②①) for each of the six new DAC evaluation criteria namely: (i) Relevance/Coherence, (ii) Effectiveness/Impact, (iii) Sustainability, and (iv) Efficiency. JICA derives four-level overall ratings (Highly satisfactory (external evaluation rating: A); Satisfactory (B); Partially satisfactory (C); and Unsatisfactory (D)) in accordance with the rating flowchart based on each sub-rating. Overall ratings are used as indicators to measure project outcomes, etc., and do not take into account the degree of difficulty of each project.

With the revision of JICA's project evaluation criteria, "Performance" (timely and appropriate response to changes in diverse project environments) and "Additionality" (JICA's unique added value, innovative efforts, etc.) in project implementation, which are not covered in the above six criteria, were newly added as ex-post evaluation perspectives. Since these are factors for which it is difficult to objectively determine ratings, they are designated as "non-scoring factors" that are not subject to rating and overall evaluation.

External and internal evaluation systems

In principle, projects costing one billion yen or more are subject to external evaluations, which are conducted by third-party evaluators to ensure transparency and objectivity of evaluation results (Refer to p. 14 for evaluation results and pp. 18–31 for highlighted projects). Projects costing 200 million yen or more but less than one billion yen are subject to internal evaluations undertaken by JICA Overseas Offices, Branch Offices, and Regional Departments of the countries and regions where the projects are implemented. (Refer to p.15 for evaluation results and pp. 34–36 for highlighted projects). Please refer to the list of the external evaluators for the 67 projects of which evaluation results were finalized in FY2022, see **[List of external evaluators for FY2021]**.

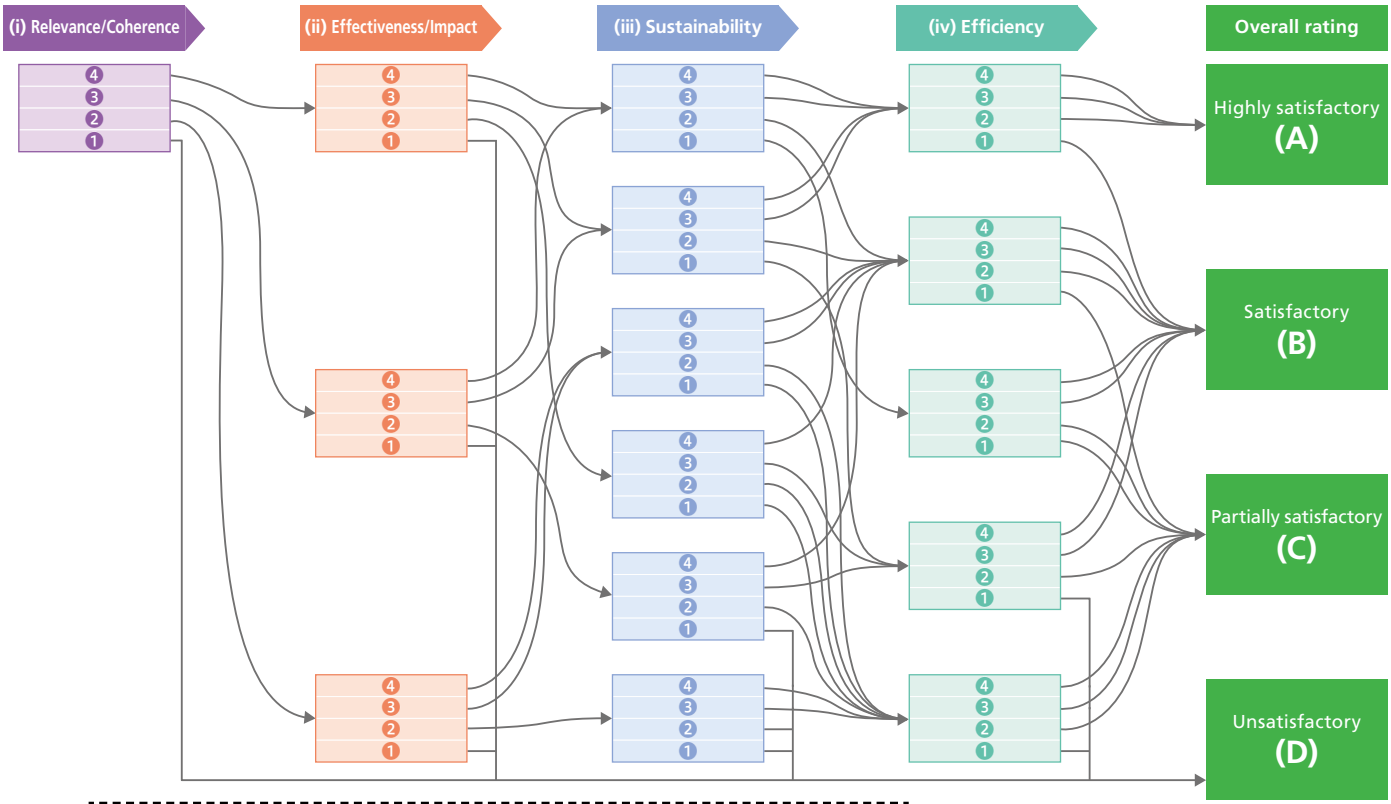
As internal evaluations are conducted primarily by JICA's overseas offices, particular emphasis is placed on a "learning" perspective, such as drawing practical lessons based on the project background, which can be used to improve the implementation of similar projects, and to identify and develop new projects. Overseas offices and relevant divisions allocate their staff to each project and finalize evaluation results by defining the evaluation framework, conducting field surveys, completing evaluations based on information and data collected, discussing with the implementing agencies of the partner countries, and other activities. There are differences in staffing, evaluation expertise, and experience among the overseas offices that conduct internal evaluations. Therefore, to ensure that each overseas office can conduct internal evaluations smoothly, JICA provides various types of support, including the development of evaluation standards and manuals, training to improve evaluation skills, and support for drafting documents for the evaluation process. In addition, JICA monitors the quality of internal evaluation results via third parties to improve internal evaluations, make them more objective and impartial, and enhance accountability. For details of third-party quality check systems, refer to **[External third-party Quality Check of internal ex-post evaluation results]**.

1 For projects costing less than 200 million yen, outcomes are verified at the completion of each project.
2 The DAC evaluation criteria had been under review since 2015, with one new criterion (Coherence) added in 2019, giving a total of six criteria (relevance, coherence, effectiveness, impact, efficiency, and sustainability), and then each criterion was redefined. JICA has been applying the new evaluation criteria for projects for which evaluations began in FY2021 or later (Table: JICA's new evaluation criteria). (*However, some of the evaluation results presented in this report include projects for which evaluation began in FY2020 or earlier, and thus were evaluated based on the previous criteria.)

Table: JICA's New Evaluation Criteria

Main perspectives			Judgement criteria			
			④ Highly satisfactory	③ Satisfactory	② Partially satisfactory	① Unsatisfactory
(i)	Relevance	1. Consistency with the development plan of the partner country 2. Consistency with the development needs of the partner country 3. Appropriateness of project plan and approach	All perspectives 1–3 are addressed. Furthermore, the contents of the project provides suggestions for other projects.	All perspectives 1–3 are addressed.	There are issues with respect to one or two of the perspectives 1–3.	There are issues with respect to one or two of the perspectives 1–3, and problems have arisen.
	Coherence	1. Consistency with the ODA policy of the Japanese Government and JICA 2. Interlinkage with other JICA's projects and support (synergies, etc.) 3. Cooperation with other institutions/ Coordination with international frameworks	Consistent with respect to 1, and more cooperation/ coordination achieved than initially expected, with tangible outcomes confirmed with respect to 2 and 3.	Consistent with respect to 1, and cooperation/ coordination in line with initial expectations, with tangible outcomes confirmed with respect to 2 or 3.	Consistent with respect to 1. No tangible cooperation/ coordination, or no tangible outcomes confirmed even with existing tangible cooperation/coordination with respect to 2 or 3.	No alignment with respect to 1.
(ii)	Effectiveness	The degree of achievement of the target level of expected project effects in the target year (noting any differences between beneficiaries)	Expected outcomes achieved beyond the plan.	Expected outcomes mostly achieved as planned.	Expected outcomes partially achieved as planned.	Expected outcomes not achieved.
	Impact	Realization of positive/negative, indirect and long-term effects (including environmental and social considerations), social systems and norms, human well-being, human rights, gender equality, and presence of potential environmental impacts	Considerations and effects realized beyond the plan/no negative impacts confirmed.	Considerations and effects realized as planned/no negative impacts confirmed.	Some problems regarding the realization of considerations and effects/some negative impacts confirmed.	Problems regarding the realization of considerations and effects/serious negative impacts confirmed.
(iii)	Sustainability	Policy aspects, institutional and organizational aspects, technical aspects, financial aspects, environmental and social aspects, response to risks, status of operation and maintenance	No problems with respect to all of the aspects listed on the left, preventive measures taken against sustainability risks from environmental, social, or other aspects.	Some minor problems with respect to the aspects listed on the left with strong prospects for improvement and resolution.	Some problems with respect to the aspects listed on the left with poor prospects for improvement and resolution.	Multiple problems with respect to the aspects listed on the left with serious concerns regarding sustainability.
(iv)	Efficiency	Comparison of project input plans versus planned/actual project period and project costs	Efficient. (Guideline: 100% or less of the plan)	Mostly efficient. (Guideline: over 100% to 125% of the plan)	Not considered efficient. (Guideline: over 125% to 150% of the plan)	Inefficient. (Guideline: over 150% of the plan)

Figure: Rating Flowchart



What are ratings?

Evaluation results are rated (graded) according to the perspectives of the DAC evaluation criteria and rated on a four-level scale from A to D as per the flowchart above.

(Example)

Rating		
Relevance/Coherence	③	Overall B
Effectiveness/Impact	③	
Sustainability	②	
Efficiency	③	

Note) Ratings are useful as indicators of project performance, but they do not account for the level of difficulty of each project or the extent of JICA's contribution toward achieving the outcomes, so they do not encompass all aspects of a development project.

Ex-ante Evaluation Results / Ex-ante Evaluation Practice

Ex-ante evaluation results

In FY2022, ex-ante evaluation was conducted for 207 Technical Cooperation, Finance and Investment Cooperation, and Grant Aid projects.

Ex-ante evaluation practice

(1) Pre-implementation stage evaluation

JICA's cooperation with developing countries is implemented in accordance with a project cycle of "Plan → Do → Check → Action." During the ex-ante evaluation, which corresponds to the planning phase (Plan), 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 six DAC evaluation criteria in mind. At this stage, confirmation is also carried out with respect to whether the results of reviews of environmental and social considerations, as well as lessons and recommendations from past projects, are appropriately reflected.

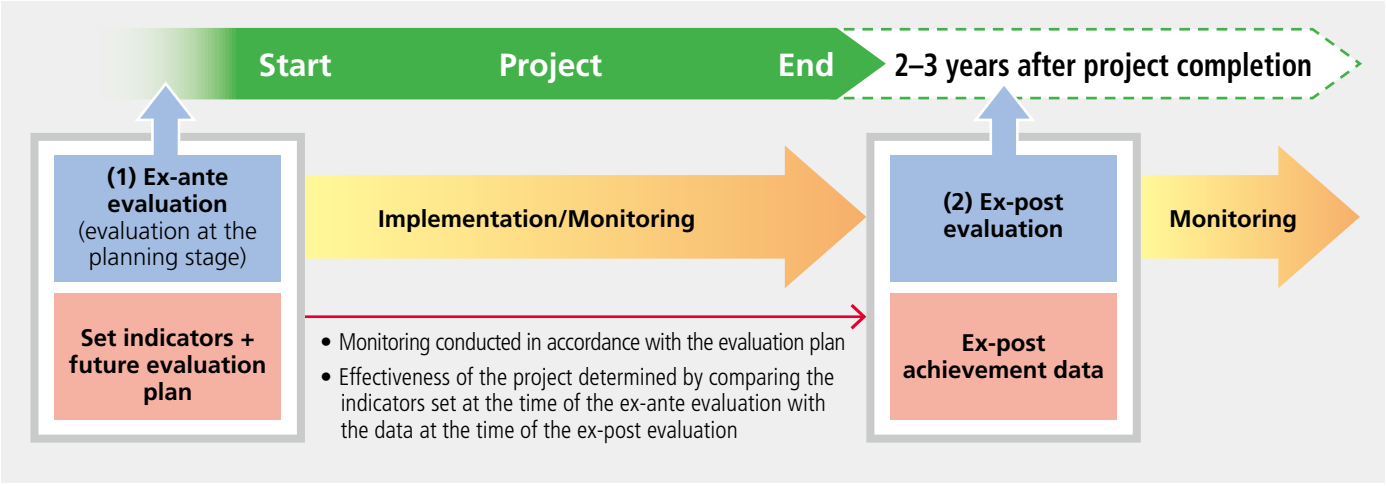
Pre-Implementation Evaluation — Comparison by Scheme

Scheme	Technical Cooperation	Finance and Investment Cooperation	Grant Aid
Timing	Pre-implementation		
Category	Projects costing 200 million yen or more		Projects costing 200 million yen or more implemented by JICA[1]
Evaluator	JICA project departments, etc. (internal evaluation)		
Evaluation perspectives/ methodology	Verification of the developed project plan from the perspective of the six DAC evaluation criteria, focusing particularly on the need for the project and its expected effects		

1 For projects involving collaboration with international organizations, evaluation is conducted by the international organization concerned.

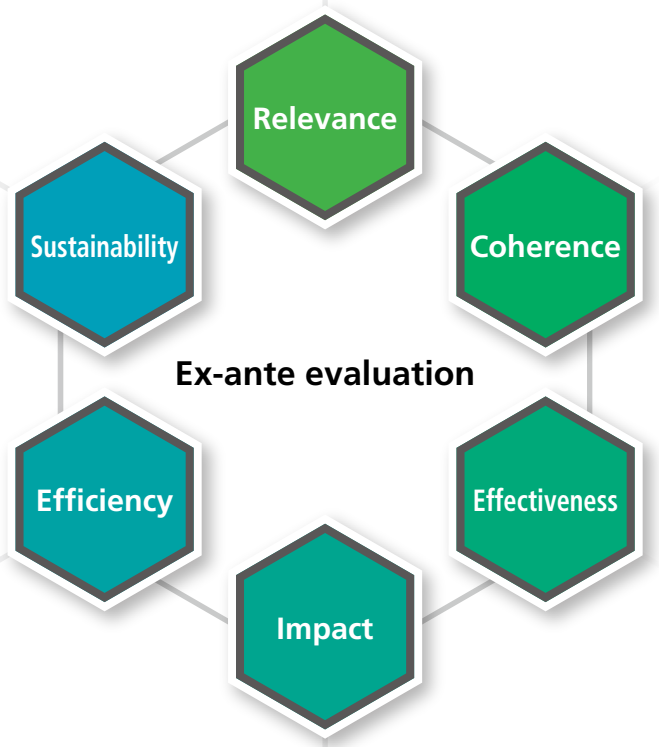
(2) Ex-ante evaluation process

Before the project begins, the department in charge of the project examines the need for the project, etc., and prepares a project plan that defines outcomes and purposes. During this process, an ex-ante evaluation is conducted, and the results of the ex-ante evaluation are compiled and published in a project ex-ante evaluation sheet and reflected in the project plan. The set indicators and target values are then used for monitoring the project and verifying the achievement of the targets during the ex-post evaluation.



(3) Ex-ante evaluation perspectives

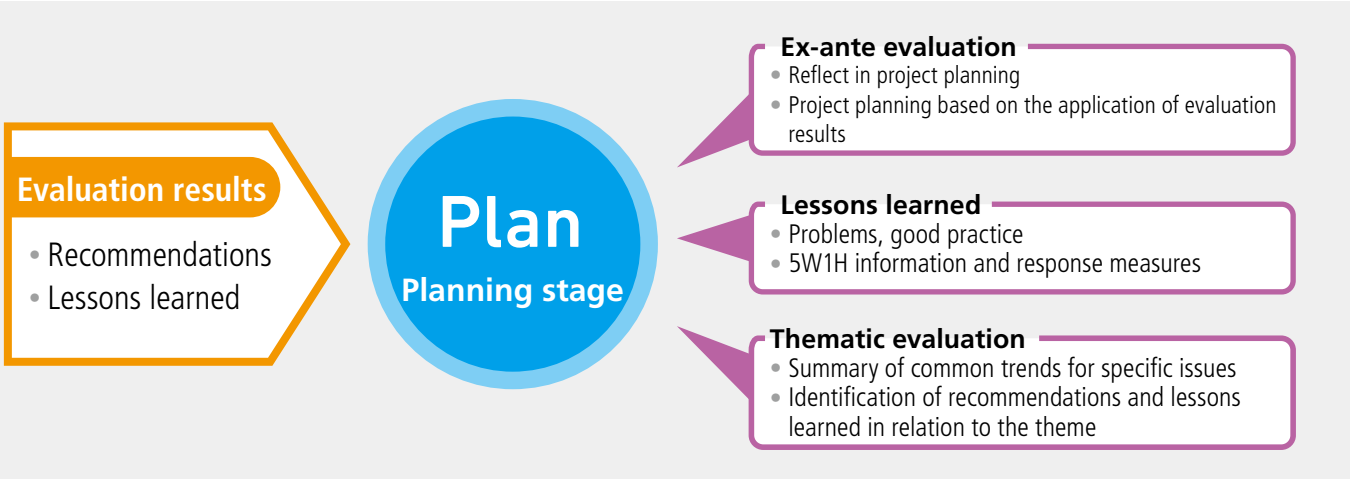
In the ex-ante evaluation, the contents of the plan are verified and the priority and necessity of project implementation are determined from the perspective of the six DAC evaluation criteria. This evaluation is conducted from six perspectives, including the appropriateness of the indicators necessary to measure the effectiveness of the project after its completion, whether or not reference values are established to accurately evaluate the changes brought about by the project, and the logic of cause-and-effect relationships. In addition, the "JICA Project Evaluation Handbook" and the "External Ex-post Evaluation Reference" have been developed as reference materials for guidance on evaluation perspectives.
(https://www.jica.go.jp/english/our_work/evaluation/tech_and_grant/guides/index.html)



(4) Application of lessons learned

In ex-ante evaluation, in order to apply the lessons learned from similar projects to the planning of subsequent projects, an "Application of Lessons Learned from Similar Past Projects" field is included in the ex-ante evaluation sheet to facilitate project improvement through the application of evaluation results. Lessons learned that are applied during project development are identified through the ex-post evaluation. Lessons learned are collected not only with respect to problems, but also with respect to lessons learned that have resulted in good practices, and are used as a valuable source of information for improving projects.

In addition to this, thematic evaluations are implemented to identify trends common to specific regions, issues, methods, etc., and to extract lessons learned. Through these cross-sectoral analyses, the identification of lessons learned that can be processed into general-purpose, practical lessons (knowledge) is also conducted within this thematic evaluation process.



External Ex-post Evaluation Results

Overall ratings

In FY2022, ex-post evaluation results were finalized for 67 projects[1] (based on the number of evaluations): 21 ODA Loan projects; 27 Grant Aid projects; 17 Technical Cooperation projects; and 2 Private-Sector Investment Finance projects[2]. Their results are listed on pages 16 and 17.

Overall ratings were given for 61 projects[3], mainly in Africa and Southeast Asia. The overall ratings were: A for 28 projects (46%); B for 27 projects (44%); C for 6 projects (10%); and D for 0 projects (0%). A and B grades were awarded to 90% of projects, while the total of C and D comprised 10%[4].

Evaluation by criteria

Below, a summary is given of the evaluation results for each factor for projects evaluated under the new evaluation criteria, which make up 55[5] of the 61 projects for which overall ratings are given.

- **Relevance/Coherence:** For all evaluated projects except one, the content of the support was consistent with Japan's ODA policy and the partner country's policies and development needs, producing a satisfactory result. One project was evaluated moderately low in terms of "appropriateness of the project plan and approach," with issues identified such as the need for major changes to the plan during project implementation and the fact that the project was terminated with approximately half of the project funds remaining.
- **Effectiveness/Impact:** About 70% of the projects showed effects as planned or better than planned, while about 30% of the projects showed limited effects.
- **Sustainability:** About 60% of the projects were found to be sustainable with no problems in terms of related policies and systems, management, frameworks, technology, and financial status, and to have preventive measures in place in case of sustainability risks from environmental and social perspectives, or to have prospects for improvement and resolution even if some issues are present. For the remaining 40% or so, it was confirmed that there were some issues and low prospects for improvement and resolution.
- **Efficiency:** About 60% of project inputs (project cost and project duration) were evaluated as efficient or generally efficient relative to outputs, while about 40% were evaluated as not efficient.

Under the new evaluation criteria, "Performance" (timely and appropriate response to changes in diverse project environments) and "Additionality" (JICA's unique added value, innovative efforts, etc.) were added as non-scoring factors in project implementation. The following points were confirmed as a result of the "Subjective Perspectives (retrospective)" conducted on three projects, in which the environment at the start of the project and how the project overcame challenges while delivering outcomes were analyzed through interviews with stakeholders in the project, etc.

- In response to the extensive damage caused by Typhoon Yolanda, JICA was able to respond to a wide range of needs in a short period of time by using "Sector Grants" to implement multiple sub-projects in multiple sectors at the same time under a single Grant Aid project. (Project No. 2 and 3: Philippines (Grant Aid) "The Programme for Rehabilitation and Recovery from Typhoon Yolanda""The Project for Reconstruction of Municipal Halls in Lawaan and Marabut Municipalities")
- An understanding of the advanced functionality of Japanese-made medical equipment, based on the actual use of such equipment provided through grant aid, led to the realization of the ODA loan. In addition, a technical cooperation project was implemented at the same time that medical equipment was being installed through the ODA loan, and biomedical engineers were assigned to the medical equipment department of the newly established hospital. This provided a starting point for the establishment of a system for the maintenance and management of medical equipment through participation in training programs and other activities. (Project No. 75: Moldova (ODA Loan) "The Project for Improvement of Medical Care Service")
- This was one of the first ODA loan projects undertaken in the country, but there were times when JICA staff were unable to visit the project area for security reasons, so efforts were made to facilitate progress and strengthen the capacity of the Iraqi government through quarterly monitoring committee meetings and a service contract with the UNDP. (Project No. 67: Iraq (ODA Loan) "Samawah Bridges and Roads Construction Project")

External evaluation policy going forward

FY2022 was the first year in which ex-post evaluations under the new evaluation criteria were completed. Going forward, while conducting ex-post evaluations based on the new evaluation criteria, emphasis will be placed on the process of realizing project effects, and better lessons will be extracted from the non-scoring factors "Performance" and "Additionality" to be used in the development of new projects and the implementation of similar projects.

1 Of the 67 projects for which external ex-post evaluations were completed in FY2022, 6 were conducted on the basis of the previous evaluation criteria.
2 Ex-post evaluations of private-sector investment finance projects were fully introduced in FY2020.
3 The 67 projects for which external ex-post evaluations were completed in FY2022 include 4 for which an overall rating was not given, and 2 private-sector investment finance projects for which the overall rating was not disclosed.
4 Over the long term, these results are within the normal range of fluctuation. The average proportion of overall ratings A and B for projects completed between FY2010 and FY2020 was about 79%, 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 between each fiscal year.
5 Of the 67 projects for which external ex-post evaluations were completed in FY2022, 61 had an overall rating published. Of these, 6 were conducted on the basis of the previous evaluation criteria, leaving 55 projects.

Internal Ex-post Evaluation Results

Overall ratings

In FY2022, ex-post evaluation results were finalized for 65 projects (based on the number of evaluations): 14 Grant Aid projects and 51 Technical Cooperation projects. The results are listed on pp. 32–33. In FY2022, the new OECD-DAC evaluation criteria were introduced, and among internal evaluations, 15 projects were evaluated under the new evaluation criteria and 50 projects were evaluated under the previous criteria.

A breakdown of the 64 projects[1] for which evaluation results were disclosed shows that most were carried out in Africa, South Asia, and Southeast Asia, with approximately 74% of projects under the new evaluation criteria and 57% of projects under the previous evaluation criteria rated at or above the expected level with respect to the plan.

Evaluation by criteria

- **Relevance (previous evaluation criteria):** With the exception of a few projects, in general, the content of the assistance was evaluated as consistent with the policies and needs of the partner country.
- **Relevance/Coherence (new evaluation criteria):** With the exception of about 10% of the projects, in general, the content of the assistance was evaluated as consistent with the policies and needs of the partner country. There were many projects with some issues in terms of coherence, amounting to about half of the total. The reason for this is that, as background, few projects were planned to be linked to other projects because coherence did not exist as a factor at the planning (ex-ante evaluation) stage. Going forward, from the perspective of coherence improvements will be encouraged so that linkage can be included during planning and the project implementation phase and synergies can be achieved.
- **Effectiveness/Impact:** Projects in which the effects were realized as planned accounted for approximately 50% of the total under the previous evaluation criteria, and approximately 60% under the new evaluation criteria.
  In terms of projects evaluated as having issues, among Grant Aid projects, there were cases where qualitative issues arose due to theft of equipment, incomplete transfer of facilities due to relocation, or lack of financial and human resource support to maintain the equipment. For Technical Cooperation projects, cases were identified where the approach was changed partway through due to technical problems, but the appropriate indicators were not changed accordingly; cases where the conditions of the targets of field activities changed due to the occurrence of a disaster; and cases where the ministry that was the implementing agency was dismantled and activities based on the proposed plan were halted due to loss of initiative and leadership. In addition, there were cases where, due to the absence of appropriate indicators for the goals set at the project planning stage, or due to the difficulty of obtaining data and information during the ex-post evaluation, project effects could not be fully verified through the achievement of goals for each level.
- **Efficiency:** Approximately 20% of projects under the previous evaluation criteria and 30% under the new criteria were completed within the plan, both in terms of project cost and project duration. For Grant Aid, about 80% of projects exceeded the planned project period. The reasons cited for this were delays in bidding and procurement, delays in facility construction progress, security, and issues related to the obligations borne by the implementing agencies and other parties (e.g., budgetary measures). For Technical Cooperation, the reasons included, with respect to project costs, increases in combined project costs due to the need for additional activities to achieve goals as projects progressed, and, with respect to project duration, changes in plans and extensions to achieve project goals.
- **Sustainability:** Approximately 90% of projects under the previous evaluation criteria and 50% under the new criteria were found to have some issues. Maintenance issues, such as the omission of routine inspections and repairs, and technical issues, such as retaining transferred technologies, were the most frequently cited issues, each identified in about 70% of projects, followed by financial issues, such as budgetary measures taken by the implementing agencies, and institutional issues, typically lack of staffing.

Internal evaluation policy going forward: Enhancing quality and further improving efficiency

In response to the revised evaluation criteria, JICA will enhance the content of internal evaluation manuals that contribute to eliciting recommendations and lessons learned, thereby enhancing the quality of evaluations, improving the implementation of subsequent projects, and promoting the development of new projects. In addition, training opportunities for JICA overseas offices will be used to improve evaluation capabilities. On the other hand, in conducting internal evaluations, there is a concurrent need for efforts to improve efficiency, for example, by maintaining a certain level of quality making evaluations more well-rounded. Going forward, integrated evaluation of phase projects and integrated evaluation that transcends the boundaries of schemes, such as technical cooperation and grant aid, will be continued.

1 The 65 projects for which internal ex-post evaluations were completed in FY2022 include 1 for which evaluation results were not disclosed.

List of External Ex-post Evaluation Results

As a general rule, projects costing one billion yen or more are subject to external evaluations. Click on a project name to jump to its ex-post evaluation report.

Country	Evaluation No.*1	Project No.*2	Scheme*3	Project name	Relevance/ Coherence*4	Effectiveness/ Impact*4	Sustainability*4	Efficiency*4	Overall rating*5
Indonesia	1	1	L	Decentralized Irrigation System Improvement Project (II)	3	3	2	2	B
Philippines	2	2	G	The Programme for Rehabilitation and Recovery from Typhoon Yolanda	3	3	3	3	A
		3		The Project for Reconstruction of Municipal Halls in Lawaan and Marabut Municipalities					
Cambodia	3	4	G	The Project for Development of Traffic Management System in Phnom Penh	3	3	3	2	A
	4	5	G	The Project for Expansion of Water Supply System in Kampot	3	4	3	4	A
Laos	5	6	L	Southern Region Power System Development Project	3	3	2	4	B
Timor-Leste	6	7	G	The Project for Construction of Upriver Comoro Bridge	3	3	2	2	B
Viet Nam	7	8	T	The Project for Capacity Enhancement in Road Maintenance	3	3	2	3	B
		9		The Project for Capacity Enhancement in Road Maintenance Phase II					
Papua New Guinea	8	10	L	Port Moresby Sewerage System Upgrading Project	3	2	3	3	B
		11	(T)	Port Moresby Wastewater Management Improvement Project					
	9	12	G	The Project for Reconstruction of Bridges on New Britain Highway	3	3	2	2	B
Tonga	10	13	G	The Project for Upgrading of Wharf for Domestic Transport	3	2	3	3	B
Samoa	11	14	G	The Project for Enhancement of Safety of Apia Port	3	3	3	4	A
Palau	12	15	G	The Project for Improvement of Water Supply System	3	3	3	3	A
Mongolia	13	16	L	Fiscal, Social and Economic Reform Development Policy Loan	4	3	NA*6	NA*6	NA*6
Kyrgyz	14	17	G	The Project for Improvement of Equipment of the Manas International Airport	3	3	3	3	A
Tajikistan	15	18	G	The Project for Improvement of Dushanbe International Airport (Phase 1)	3	2	4	2	B
		19		The Project for Improvement of Dushanbe International Airport (Phase 2)					
Bhutan	16	20	G	The Project for Reconstruction of Bridges on Primary National Highway No. 1	3	3	4	3	A
	17	21	G	The Project for the Rehabilitation of Taklai Irrigation System in Sarpang District	3	2	3	4	B
Bangladesh	18	22	P	Moheshkhali Floating Storage and Regasification Unit Operation Project	—	—	—	—	—*7
India	19	23	L	Tamil Nadu Investment Promotion Program (Phase 2)	4	3	NA*6	NA*6	NA*6
	20	24	L	Bangalore Distribution Upgradation Project	3	3	4	2	A
	21	25	L	Gujarat Investment Promotion Program	3	3	NA*6	NA*6	NA*6
	22	26	L	Andhra Pradesh and Telangana Rural High Voltage Distribution System Project	3	3	3	2	A
	23	27	L	Hyderabad Outer Ring Road Project Phase 1	3	3	4	2	A
		28		Hyderabad Outer Ring Road Project Phase 2					
		29	(T)	The Assistance for the Introduction of ITS Related to Hyderabad Outer Ring Road Construction Project					
Pakistan	24	30	L	Khyber Pakhtunkhwa Emergency Rural Road Rehabilitation Project	3	3	2	3	B
Sri Lanka	25	31	L	Project for Improvement of Basic Social Services Targeting Emerging Regions	3	4	2	2	B
		32	(T)	Project for Enhancement of Non-communicable Diseases Management					
	26	33	L	Project for the Construction of Major Bridges on National Road Network	2	3	3	4	B
	27	34	G	The Project for the Maritime Safety Capability Improvement	3	3	3	3	A
Asian countries	28	35	P	Asia Climate Partners LP	—	—	—	—	—*7
Mexico	29	36	T	The Project for Diversity Assessment and Development of Sustainable Use of Mexican Genetic Resources (SATREPS)	3	3	2	4	B
Argentina/Chile	30	37	T	The Project for Development of the Atmospheric Environmental Risk Management System in South America (SATREPS)	3	2	2	2	C
Peru	31	38	L	Energy Renovation Infrastructure Assistance Program	3	2	2	2	C
Ghana	32	39	G	The Project for the Construction of Advanced Research Center for Infectious Diseases at Noguchi Memorial Institute for Medical Research	3	3	3	3	A
	33	40	G	The Project of Reinforcement of Power Supply to Accra Central	3	2	3	3	B
Malawi	34	41	T	Project for Community Vitalization and Afforestation in Middle Shire	3	3	2	3	B
		42		Project for Promoting Catchment Management Activities in Middle Shire					

*1 Evaluation No. = Number corresponding to the evaluation performed
*2 Project No. = Number corresponding to the project under evaluation

Country	Evaluation No.*1	Project No.*2	Scheme*3	Project name	Relevance/ Coherence*4	Effectiveness/ Impact*4	Sustainability*4	Efficiency*4	Overall rating*5
Nigeria	35	43	G	The Project for Emergency Improvement of Electricity Supply Facilities in Abuja in the Federal Republic of Nigeria	3	3	3	3	A
Seychelles	36	44	G	The Project for Construction of Artisanal Fisheries Facilities in Mahé Island (Phase 2)	3	3	4	4	A
Tanzania	37	45	G	The Project for Improvement of Tazara Intersection	3	3	2	3	B
		46		The Project for Improvement of Tazara Intersection (Phase2)					
		47		The Project for Improvement of Tazara Intersection (Phase3)					
	38	48	T	The Project for Capacity Development of Efficient Distribution and Transmission Systems	3	3	3	2	A
Benin	39	49	G	Project for Access Improvement to Drinking Water in Two Communes, Glazoue and Dassa-Zoume	3	2	3	3	B
Cameroon	40	50	T	The Project on Magmatic Fluid Supply into Lakes Nyos and Monoun and Mitigation of Natural Disasters through Capacity Building in Cameroon	3	2	3	3	B
Mali/Senegal	41	51	G	Projet de Construction des Ponts sur le Corridor du Sud en République du Mali et en République du Sénégal (Phase I)	3	3	2	3	B
		52		Projet de Construction des Ponts sur le Corridor du Sud en République du Mali et en République du Sénégal (Phase II)					
		53		Projet de Construction des Ponts sur le Corridor du Sud en République du Mali et en République du Sénégal (Phase III)					
Mauritania	42	54	G	Project for Extension and Equipment Provision for the National School of Public Health of Nouakchott	3	3	3	3	A
Mauritius	43	55	G	The Project for Improvement of Meteorological Radar System (I)	3	4	3	2	A
		56		The Project for Improvement of Meteorological Radar System (II)					
Mozambique	44	57	G	The Project for Construction of a Health Science Institute in Nacala	3	3	2	3	B
	45	58	G	Maputo Fish Market Construction Project	3	2	2	2	C
Rwanda	46	59	T	Project for Strengthening the Capacity of Tumba College of Technology	3	3	3	3	A
		60		Project for Strengthening the Capacity of Tumba College of Technology Phase 2					
	47	61	G	The Project for Development of Irrigation Scheme in Ngoma District	3	2	3	3	B
Sierra Leone	48	62	T	The Project for Capacity Development for Comprehensive District Developments in the Northern Region of Sierra Leone	3	2	3	3	B
South Sudan	49	63	T	The Project for Capacity Development on Sustainable Road Maintenance and Management in Juba, South Sudan	3	2	2	3	C
	50	64	T	Project for Capacity Development in Solid Waste Management in Juba	3	2	2	3	C
	51	65	T	The Project for Enhancement of Operation and Management Capacity of Inland Waterway in Southern Sudan	2	NA*6	1	3	NA*6
Iraq	52	66	L	Electricity Sector Reconstruction Project in Kurdistan Region	3	3	3	3	A
	53	67	L	Samawah Bridges and Roads Construction Project	3	3	3	2	A
	54	68	L	Irrigation Sector Loan	3	2	2	2	C
Palestine	55	69	G	The Project for Support for the Public Activities of the Communities in Jordan Valley in the Palestinian Authority	3	3	2	2	B
Egypt	56	70	L	Gulf of El Zayt Wind Power Plant Project	3	3	4	3	A
	57	71	L	Energy Control System Upgrading Project in Upper Egypt	3	3	4	2	A
Tunisia	58	72	L	National Television Broadcasting Center Project	3	4	4	2	A
	59	73	L	Water-Saving Agriculture Project in Southern Oasis Area	3	3	2	3	B
Morocco	60	74	G	The Project for Construction of Shellfish Aquaculture Technology Research Center	3	3	2	2	B
Moldova	61	75	L	The Project for Improvement of Medical Care Service	3	3	2	2	B
Indonesia	62	76	T	Pilot Study for Carbon Sequestration and Monitoring in Gundih Area, Central Java Province, Indonesia	3	3	3	3	A
Malaysia	63	77	T	Project on Promotion of Green Economy with Palm Oil Industry for Biodiversity Conservation	3	3	2	2	B
Philippines	64	78	T	Enhancement of Earthquake and Volcano Monitoring and Effective Utilization of Disaster Mitigation Information in the Philippines	3	3	3	3	A
Thailand	65	79	T	Development of Aquaculture Technology for Food Security and Food Strategy in the Next Generation	3	3	3	3	A
Palau	66	80	T	Project for Sustainable Management of Coral Reef and Island Ecosystems:Responding to the Threat of Climate Change	3	3	3	2	A
Botswana	67	81	T	Information-based Optimization of Jatropha Biomass Energy Production in the Frost- and Drought-Prone Regions of Botswana	3	2	3	3	A

*3 T: Technical Cooperation, L: ODA Loan, G: Grant Aid, P: Private-Sector Investment Finance
In cases where multiple schemes were evaluated together, the number of evaluations is counted for the schemes without parentheses.
*4 4: Highly satisfactory, 3: Satisfactory, 2: Partially satisfactory; and 1: Unsatisfactory
However, for evaluation numbers 62 to 67, the evaluation was conducted under the previous evaluation criteria (evaluation completed this fiscal year). 3: High, 2: Fair, 1: Low
*5 A: Highly Satisfactory, B: Satisfactory, C: Partially Satisfactory, D: Unsatisfactory
*6 NA indicates no sub-rating or overall rating given.
*7 Private-sector investment finance projects are private sector projects, so ratings are not disclosed.

Indonesia

Technical Cooperation

Pilot Study for Carbon Sequestration and Monitoring in Gundih Area, Central Java Province, Indonesia

Contributing to research and commercialization of Carbon Dioxide Capture and Storage (CCS) technology in Indonesia

External Evaluator: Miyazaki Keiji, OPMAC Corporation

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

- Project Cost (Japan side): 357 million yen
- Project Period: September 2012 – March 2017
- Relevant Partner Country Agencies: Bandung Institute of Technology (Institute Teknologi Bandung: ITB), Pertamina
- Consultant/Organization in Japan: Kyoto University, Waseda University, Kyushu University, Fukada Geological Institute
- Number of Experts Dispatched: (long term) 1 person, (short term) 26 persons
- Number of Technical Training Participants: Trainees received in Japan: 86 persons
- Main Equipment Provided: Earthquake survey system, micro-earthquake monitoring system, receiver exchange units, electromagnetic method survey equipment, gravity monitoring meters, weather station survey equipment, GPS equipment, etc.
- Overall Goal:
  Carbon Capture and Storage (CCS) programs in Indonesia are promoted for accelerating oil and gas development and production with zero CO_2 emission.
- Project Purpose:
  Standard Operating Procedure (SOP) for CO_2 storage evaluation technology, CO_2 sequestration and monitoring technology, which is necessary for CCS technology application, is proposed for promoting CCS programs in onshore gas fields in Indonesia.
- Outputs:
  - Output 1: Detailed action plan of the project, including implementation structure, is completed for CO_2 sequestration and monitoring in the Gundih gas field.
  - Output 2: Characterization/evaluation of CO_2 sequestration sites(s) and CO_2 storage are completed to proceed the activities under Outputs 3 and surface facility simulations.
  - Output 3: Feasibility study including surface facility design and cost evaluation is completed for CO_2 sequestration and monitoring in the Gundih gas field.
  - Output 4: Geophysical and geochemical technologies which can be applied for CO_2 sequestration and monitoring are evaluated in the actual storage to determine integrated technologies for storage evaluation and CO_2 monitoring.
  - Output 5: SOP is prepared based on the analysis and the evaluation of the Gundih gas field CO_2 sequestration and monitoring.

Effects of Project Implementation (Effectiveness, Impact)

By the time of project completion, the Standard Operating Procedure (SOP) for CO_2 storage evaluation technology and CO_2 sequestration and monitoring technology, which was necessary for CCS technology application in onshore gas fields in Indonesia, was prepared by the project. However, due to a gas leak found in the borehole where CO_2 injection was planned, monitoring of CO_2 behavior could not be conducted in the reservoir. Therefore, SOP was partially incomplete in terms of content. Meanwhile, even after the project completion, research for the CCS pilot project in the Gundih gas field has continued with support from the Asian Development Bank (ADB) and the Ministry of Economy, Trade and Industry (METI), and the New Energy and Industrial Technology Development Organization (NEDO). In addition, it was confirmed that the actions and initiatives for "Practical application of CCS technology in the Gundih gas field" have been undertaken continuously by both Indonesian and Japanese sides, such as the preparation of regulations for promoting the implementation of CCS and Carbon Capture, Usage and Storage (CCUS) in Indonesia. In light of the above, the implementation of this project has produced the effects as planned. Therefore, effectiveness and impact of the project are high.

Relevance[1]

Since Indonesia pledged to achieve carbon neutrality by 2060, climate change countermeasures including reducing greenhouse gases has been a priority for the country. In addition to expanding the use of new and renewable energy sources, the development and practical application of CCS

Natural gas production plant in Pertamina

A well planned for CO_2 injection in the Gundih gas field

technology, which is effective in reducing CO_2 emitted as an associated gas during natural gas production, was essential for Indonesia, the 12th largest natural gas producer in the world. Therefore, its relevance is high.

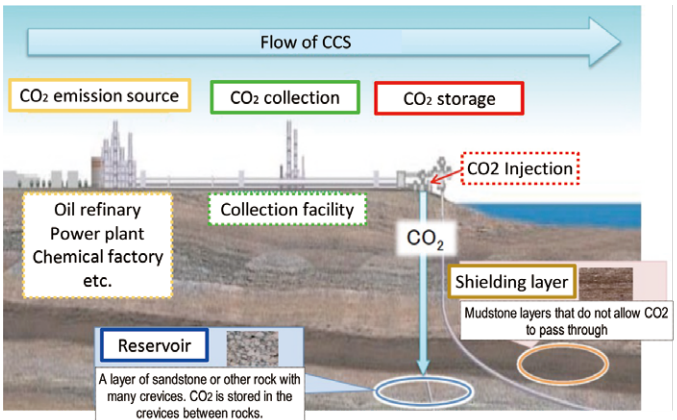
Efficiency

Both the project cost and project period were within the plan. The experts dispatched from Japan, training in Japan, and the provision of equipment were generally implemented as planned. Therefore, efficiency of the project is high.

Sustainability

The National Center for Excellence for CCS/CCUS was established in May 2017 at ITB, which has been playing an important role in developing and promoting CCS/CCUS technology through collaboration between industry, government, and academia as a research center for CCS/CCUS in Indonesia. At the time of ex-post evaluation, the basic design for the CCS pilot project (Pre-FEED) was completed utilizing the METI scheme. Since 2022, a CCS pilot project in the Gundih gas field has been planned to be implemented under the NEDO scheme, with CO_2 injection and monitoring to be started by 2026. Therefore, the sustainability of the project effects is high.

Figure: Flow of CCS (Image)



Source: Ministry of Economy, Trade and Industry (METI)

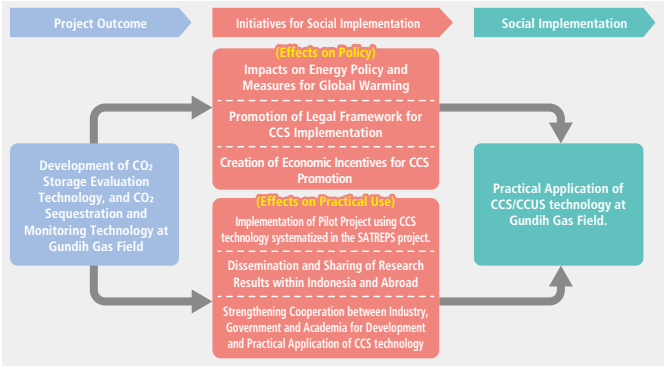
Conclusion, Lessons Learned and Recommendations

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

As a lesson learned, it is noted that the collaboration which took place during project implementation between the governments of the countries concerned and international organizations interested in the research fields and subjects of the project led to the continuation of the research results after project completion, and therefore it is important to be aware of this fact and consider the possibility of sharing information, collaboration, and cooperation with these organizations from the project planning stage.

As a recommendation, it is suggested that the Ministry of Energy and Mineral Resources (MEMR) is expected to continue to demonstrate leadership, including coordination with relevant ministries and agencies, to ensure that the regulations on CCS/CCUS, which are currently being formulated, can be enacted and put into effect during 2021 as planned.

Figure: Evaluation Framework and Coverage of Overall Goals



Source: Created by the Evaluator

Key Point of Evaluation

Confirmation of the steps to the realization of SATREPS[2] research results into social implementation

This project is a technical cooperation project conducted within the framework of SATREPS, and its ultimate goal is to promote the social implementation of science and technology that responds to the issues and needs of the partner country, rather than merely providing support for basic and applied research. The social implementation aimed for by this project is "the Practical application of CCS technology at the Gundih gas field," however, from the implementation of SATREPS to the realization of social implementation, it is essential to resolve the policy, institutional, and technical issues and constraints as well as to improve the surrounding environment necessary for its realization. In this ex-post evaluation, these were identified as "Initiatives for Social Implementation", and the evaluation was made from the perspective of how "Initiatives for Social Implementation" were progressing toward realization of social implementation in the future. ADB, the Norwegian government, and METI showed interest and provided financial support in the field of joint research from the project implementation stage, and the CCS pilot project in the Gundih gas field is being promoted with continuous support from ADB, METI, and NEDO after the project completion. In this sense, this SATREPS is likely to lead to the realization of social implementation.

1 Since this project was evaluated based on the previous evaluation criteria, explanations for the five evaluation criteria, excluding consistency, are provided.
2 SATREPS is a program supported by the Ministry of Foreign Affairs of Japan (MOFA) and the Ministry of Education, Culture, Sports, Science and Technology (MEXT), and implemented in collaboration with the Japan Science and Technology Agency (JST), the Japan Agency for Medical Research and Development (AMED), and JICA. The program promotes science-technology cooperation and science-technology diplomacy with developing countries through collaboration between Japan's excellent science-technology and ODA.
The project is a technical cooperation project implemented with the aim of acquiring new knowledge and technologies that will lead to solutions to global issues such as environment, carbon neutrality, bio-resources, disaster prevention and infectious diseases, and to create innovations, as well as to improve the independent research and development capacity of developing countries and to build a sustainable framework for activities that will contribute to solving these issues. For details, refer to the URL below.
https://www.jica.go.jp/english/activities/schemes/science/index.html

Bhutan

Grant Aid

The Project for Reconstruction of Bridges on Primary National Highway No. 1

Installation of sidewalks and adoption of curved bridge design contributed to enhancing the effectiveness of the project

Overall	A
Effectiveness and Impact	3
Relevance/Coherence	3
Efficiency	3
Sustainability	4

External Evaluator Keiko Watanabe, Mitsubishi UFJ Research and Consulting Co., Ltd.

- Grant Limit/Actual Grant Amount (Grant): 1,956 million yen / 1,956 million yen
- Exchange of Notes: March, 2015
- Project Completion: May, 2018
- Implementing Agency: Department of Roads, Ministry of Works and Human Settlement (DoR/MoWHS)
- Overall Goal: To contribute to promoting the revitalization of local economy
- Project Purpose: To ensure efficient and stable transportation
- Output: Three bridges (Chuzomsa Bridge, Nikachu Bridge, and Zalamchu Bridge) on Primary National Highway No. 1 (PNH-1) are reconstructed to improve bridge performance

Effects of Project Implementation (Effectiveness, Impact)

The project enhanced the bridge's load-bearing capacity, allowing heavy machinery to be transported to a nearby hydroelectric power plant without unloading. In this way, project effects such as an increase in average travel speed and traffic volume were obtained. In addition, the interviews with bridge users revealed that the project contributed to safety enhancement through installation of sidewalks, smooth traffic flow with reduction in road blockages, and the development of the local economy. It was also pointed out that the project contributed to improving the local residents' subjective well-being, such as satisfaction with quality of life. Thus, effectiveness and impacts are high.

Relevance

In Bhutan, road traffic is the most important means of transportation and PNH-1 is the most important trunk road. Therefore, the project is consistent with the policies and needs of the country both at the time of planning and ex-post evaluation. The project plan and approach considering people who are vulnerable to traffic accidents are appropriate. The project was also consistent with the ODA policy of Japan and internal coherence was confirmed with JICA's technical cooperation project on bridge maintenance and management. External coherence was also confirmed with the widening works of PNH-1 financed by the Government of India. Thus, relevance and coherence are high.

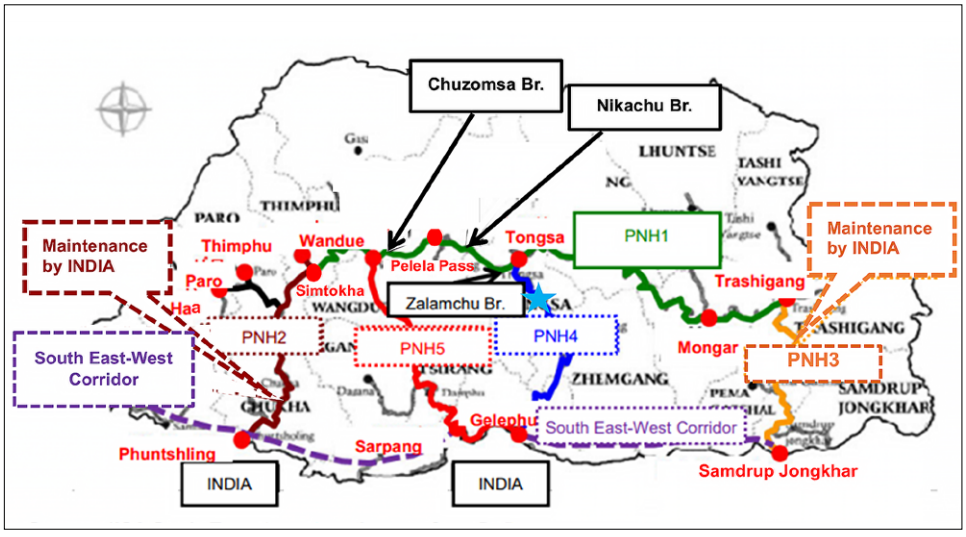
Efficiency

The three target bridges were mostly reconstructed as planned. The project period exceeded the plan (134%) but the project cost was within the plan (100%). Therefore, the efficiency is high.

Sustainability

No issues have been observed in the policy/system, institutional/organizational, technical, financial, and

Major Arterial Roads and Target Projects



Source: Mangdechhu hydroelectric project site added on National Highway No.4 (light blue ★) in the information provided by JICA. Red circles are major towns.

environmental and social aspects, including the current status of operation and maintenance. Risks have been well mitigated. Therefore, sustainability of the project effects is very high.

Conclusion, Lessons Learned and Recommendations

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

As a recommendation to the executing agency, in consideration of safety, it is desirable to remove all of the three old bridges in the future, including those still being used as foot bridges. As a lesson learned, if multiple similar grant aid projects are being implemented, instead of formulating maintenance manuals and guidelines for each grant aid project, it would be better to comprehensively address them through a technical cooperation project. By doing so, the sustainability of not only this project, but also past projects, can be enhanced.

Curving Zalamchu Bridge

Quantitative Effectiveness Indicators		Baseline value	Target value	Actual value
		2014	3 Years after Completion	2021 3 Years after Completion
Indicator 1: Bridge load-carrying capacity (t)	Chuzomsa Bridge	55	100	100
	Nikachu Bridge	55	100	100
	Zalamchu Bridge	55	100	100
Indicator 2: Average travelling speed (km/h)	Chuzomsa Bridge	16	30	30
	Nikachu Bridge	16	20	20
	Zalamchu Bridge	13	20	20
Indicator 3: Annual average daily traffic (vehicle/day)	Wandue – Pelela Pass	434	541	646
	Pelela Pass – Trongsa	314	390	563

Source: Information provided by JICA and executing agency

Nikachu Bridge with a sidewalk

Key Point of Evaluation

Good practice in future assistance on bridges

This project installed sidewalks on the reconstructed bridges and the curved design was adopted for the bridges, which improved safety and enhanced the effectiveness of the project. The sidewalks were installed because there were many residents in the vicinity of the bridges. Many users have commented that the width was wide enough for wheelchairs to pass, making it possible for elderly people and other vulnerable road users to pass safely. Furthermore, by designing the front and rear of the bridges in a curved line to the river, drivers can drive safely and smoothly. In addition, residents are proud of the beautiful design, and it has become a symbol of the local community.

Mexico

Technical Cooperation

The Project for Diversity Assessment and Development of Sustainable Use of Mexican Genetic Resources (SATREPS)

Strengthening the core institution for conservation and sustainable use of Mexican genetic resources through international collaboration

Overall	
B	
Effectiveness and Impact	3
Relevance/Coherence	3
Efficiency	4
Sustainability	2

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

- Project Cost (Japan side): 325 million yen
- Project Period: August 2013 – August 2018
- Relevant Partner Country Agencies: National Research Institute of Forestry, Agriculture and Livestock (INIFAP), Ministry of Agriculture and Rural Development
- Number of Experts Dispatched:
  Long-term experts: 4 persons
  Short-term experts: 13 persons
- Number of Technical Training Participants: Training in Japan: 49 persons
- Main Equipment Provided: Analytical instruments, vehicles, etc.
- Overall Goal:
  To develop capacity for conservation, assessment and sustainable use of Mexican genetic resources.
- Project Purpose:
  A. To establish a stable conservation system and improved germplasm management system for CNRG through the evaluation of genetic diversity and establishment of conservation methods, focusing on six target species.[1]
  B. To develop a CNRG policy for exchanging genetic resources.
- Outputs:
  Output 1: Genetic diversity of the six target species is evaluated, and basis of sustainable utilization of the germplasm is established at CNRG.
  Output 2: Long-term conservation methods are established for target species.
  Output 3: Strategies for Access and Benefit Sharing (ABS) of genetic resources are defined in CNRG.

1 The six target species for the Project are avocado, chayote, nopal, cacao, amaranth, and husk tomato.

Effects of Project Implementation (Effectiveness, Impact)

In the project, the National Center for Genetic Resources (CNRG) under the National Research Institute of Forestry, Agriculture and Food Research, University of Tsukuba, and the National Agriculture and Food Research Organization (NARO) conducted joint research. The project strengthened the genebank function of CNRG for stable conservation and management of genetic resources by evaluating genetic diversity, developing information bases, and developing long-term conservation methods for genetic resources. The exchange of genetic resources within and across countries was realized through procedures based on international rules, thus supporting the management of the use of Mexican genetic resources. It was confirmed that the CNRG is becoming a central institution for promoting the conservation and sustainable use of Mexican genetic resources. Therefore, the effectiveness and impact of the project are high.

Relevance/Coherence

At the time of the planning, the Mexican government, which emphasized its commitment to the conservation and protection of genetic resources, established a framework for an organizational system that encompassed the conservation, protection, and sustainable use of the country's genetic resources, and developed the CNRG's infrastructure and equipment with its own budget. At the time of project completion, that policy was maintained. The project is consistent with Japan's development cooperation policy at the time of planning. The project was implemented on the basis of the dispatch of Scientific and Technical Research Fellowship and training in Japan, and after the completion of the project,

Exterior view of National Center for Genetic Resources (CNRG)

Outhodox seeds stored in cold dry storage of CNRG

the CNRG was also used for training in third countries, which has synergistic effects with other JICA projects. The project is also consistent with the international framework on conservation and utilization of genetic resources and the Mexican government's commitment to the SDGs. Therefore, its relevance and coherence are high.

Efficiency

Although there were some delays in some of the activities in the project, none of them were major delays, and the activities were carried out almost as planned. The extent of achievement of outputs was high, and both the project period and project cost were within the plan, which indicates that the efficiency of the project is very high.

Sustainability

There are no problems in the policy/system, institutional/organization aspects, or technical aspects of the sustainability of the project. However, from a financial point of view, there are some issues in securing budgets for research projects obtained from external institutions. Therefore, the sustainability of the effects achieved by the project is moderately low.

Conclusion, Lessons Learned and Recommendations

Although the sustainability of the project is rather low, its relevance and coherence, effectiveness and impact, and efficiency are all high, and the project is highly evaluated. In order for CNRG to further develop and fulfill its mission based on the results of the project, it is necessary to secure a reliable research budget, continuously collect genetic resources and enhance and utilize the genebank information bases. In addition, it is necessary to promote the use of genetic resources by transferring them domestically and internationally based on international rules, and to expand collaboration with specialized institutions and researchers in Central and South America. In addition, the experience of the project has shown the effectiveness of multifaceted and continuous research cooperation utilizing various assistance schemes.

Genetic Resources Conserved in CNRG's Genebank (as of June 2022)

	Number of conserved genetic resources
Orthodox seeds (dried and low temperature store)	Crops: 26,296 lines Forage crops: 1,249 lines Forest trees: 1,975 lines
Recalcitrant seeds (cryopreservation)	Crops: 223 lines (2,367 specimens) Forest trees: 58 lines (580 specimens)
Botanical garden	Crops: 154 lines Forest trees: 474 lines
Others	DNA: 29,519 specimens Sperm of domestic animals / aquatic organisms: 24,697 specimens Embryo: 138 specimens Oocyte: 1,549 specimens Microorganisms: 491 lines (1,519 specimens)

Source: Prepared from materials provided by CNRG

Cryopreservation using aluminum cooling plates

Cryopreservation chamber

Key Point of Evaluation

Expectations for Returning Research Results to Society

CNRG is the central institution for promoting the conservation and sustainable use of Mexican genetic resources. The technologies for evaluating genetic diversity obtained by CNRG through the project will be used for the evaluation of genetic diversity for the breeding of plants and animals. The plant growth suppression and cryopreservation technologies developed by the project can be customized by CNRG and provided to private seed companies and others for their target species when they introduce new species. Thus, it is expected that the research results by CNRG based on the project and the genetic resources stored at CNRG will be utilized in the agricultural sector through breeding and other means.

Moldova

Finance and Investment Cooperation

The Project for Improvement of Medical Care Service

Contribution to the improvement of medical care services through synergies with the JICA's Grant Aid and Technical Cooperation projects

External Evaluator Hisae Takahashi, Global Group 21 Japan, Inc.

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

- Loan Amount/Disbursed Amount: 5,926 million yen/5,698 million yen
- Loan Agreement: June, 2013
- Terms and Conditions: Interest Rate: 0.1% (except for consulting services)
  0.01% (Consulting service)
  Repayment Period: 30 years (Grace period 10 years)
  Conditions for Procurement: Tied (Special Terms for Economic Partnership (STEP))
- Final Disbursement Date: July, 2018
- Implementing Agency (Loan): Ministry of Health
- Overall Goal:
  Contributing to the improvement of the medical care service for the citizens.
- Project Purpose:
  To improve and streamline medical care and public health service.
- Output:
  Introducing new medical and laboratory equipment into the target hospitals and facilities.

Effects of Project Implementation (Effectiveness, Impact)

The number of tests and treatments required, set as the operation and effect indicators, have generally increased as planned. The equipment procured through the project has contributed to providing quality medical care services with comfort by medical staff and to the reduction of the burden on patients. It is also reported that the accuracy and efficiency of testing capabilities in the National Centers of Public Health (CNSP)/ the Centers of Public Health (CSPs) have been improved. Patients are also highly satisfied with the services. It can be said that the improvement of medical care services in the target facilities, which are the top referral hospitals in each area, has had an impact on the improvement of medical care services in Moldova as a whole. The equipment was also used as essential equipment for responding to COVID-19 and providing medical services to displaced people from Ukraine, which contributed to the large numbers of patients. Therefore, effectiveness and impacts of the project are high.

Relevance/Coherence

The project is in line with the Moldova's development policy and development needs, which have shown the importance of improving the efficiency of health and public health services, and Japan's ODA policy, which has indicated the improvement of medical care services as an important issue. The impact of past Grant Aid projects that provided medical equipment was recognized and led to the implementation of the project, and the support provided by the Technical Cooperation Project that was implemented at the same time the equipment was installed for this project has contributed to the proper use and operation of the equipment (see Key Point of Evaluation). Coordination was also performed to avoid overlap with the World Bank and other assistance, and a contribution to "SDG Goal 3: Ensure healthy lives and promote well-being for all at all ages" was also confirmed. Therefore, its relevance and coherence are high.

Efficiency

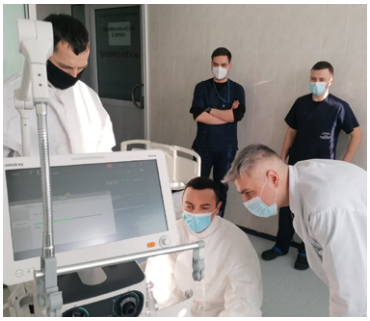
Though some changes were made during the detailed design, the major equipment was procured without any changes after the detailed design. The project cost slightly exceeded the plan because the scale of the facility renovation required for the installation of precision equipment was larger than planned. The project period significantly exceeded the plan due to the delay in facility construction. Therefore, efficiency of the project is moderately low.

Sustainability

No issues have been observed in the policy/system, institutional/organizational, and technical aspects of the

Patient monitor (front) and Ventilator (left back)

Angiography equipment



BMEs inspecting medical equipment with doctors. (One BME in the front right and two in the back).
Source: Website of the target hospital (the Republican Clinical Hospital)

project, and the maintenance status is generally good, thanks to the Bio-Medical Engineers (BMEs) who maintain and manage the equipment. On the other hand, half of the target facilities reported budget shortfalls. In addition, there is some sophisticated equipment that cannot be used during the long repair period as there are no distributors for such equipment in Moldova, and it is not expected to be resolved. Therefore, sustainability of the project effects is moderately low.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be satisfactory. As a recommendation to the executing agency, it would be preferable to reconsider the replacement cycles of parts, in addition to general preventive maintenance and maintenance plans, for the frequently used equipment to further enhance the effective use of equipment. It is also desirable to support the proper maintenance and utilization of equipment by reducing the burden on BMEs with an increase in the number of staff to target facilities that are understaffed. As lessons learned, when procuring equipment, the conditions under which the equipment will be fully utilized should be clarified in advance, and it is desirable to install the equipment only after the conditions for installation (securing the installation site and assigning several doctors who can operate the equipment) are met, to prevent equipment from being unused.

Achievement Status of Operation and Effect Indicators

	Baseline value	Target value	Actual value			
	2011		2018	2019	2020	2021
		2 Years After Completion	Completion Year	1 Year After Completion	2 Years After Completion	3 Years After Completion
① Average number of days of hospitalization for patients with endoscope interventions						
Institute of Mother and Child (MCI)	5.4	4.0	4.0	4.0	**4.0**	4.0
Emergency Medicine Institute (EMI)	4.0	3.5	3.8	3.8	**3.5**	3.5
Oncologic Institute (OI)[1]	—	3.5	—	—	—	—
Municipal Clinical Hospital "Sf. Treime" (ST)	5.2	4.0	3.6	3.4	**3.0**	2.8
② Number of patients with ischemic heart disease treated by endovascular interventions						
ST	0	500	182	233	279	**789**
EMI[2]	0	350	310	370	255	**370**
③ Number of CT tests						
MCI	0	2,500	1,288	1,709	1,513	**2,485**
EMI	7,434	10,000	10,022	10,197	**9,814**	16,378
ST	766	2,000	3,565	3,703	**3,767**	6,029
④ Number of MRI tests						
EMI	0	2,000	1,004	**1,842**	1,039	**1,961**
⑤ Number of angiography tests						
EMI	0	1,200	N.A.	N.A.	N.A.	N.A.
ST	0	750	800	830	**717**	906
⑥ Number of endoscopic interventions						
MCI[3]	429	1,100	3,712	3,862	**2,744**	3,779
EMI	2,333	5,800	5,328	3,653	2,217	3,110
OI[3]	N.A.	5,800	5,668	6,301	**4,619**	5,555
ST	1,054	4,000	6,528	6,956	**6,052**	7,388
⑦ Number of microscopic interventions						
RCH	0	150	2,525	3,050	**1,624**	2,776
⑧ Number of tests at the CNSP and CSPs						
CNSP and CSPs[4]	60	54	—	—	—	**183**

Source: Documents provided by JICA, questionnaire answers
1 As oncology patients have complex systemic diseases and receive multilateral treatment, this indicator is not appropriate for the OI and is therefore excluded from the evaluation.
2 The EMI is not subcontracted by Moldova's National Health Insurance for the delivery of treatment services for cardiac patients and treatment is not provided to these patients, therefore, "the number of patients with cerebrovascular diseases and peripheral vascular diseases treated by endovascular interventions" was used as an alternative indicator.
3 In the MCI and OI, "Number of the interventional endoscopies including Laparoscopies, Hysteroscopies, Bronchoscopies, Gastroscopies" (MCI) and "Number of mammography and colonoscopy screening investigation" (OI), were confirmed as the alternative indicators because the scope of the indicators was not clear while the baseline values include all endoscopic treatments.
4 Due to the consolidation of public health-related organizations, some tasks have been transferred to the newly created National Food Safety Agency, and "Number of measurable parameters made possible by the procurement of examination equipment" was set as an alternative indicator.

Key Point of Evaluation

Contributing to the improvement of medical services through collaboration with Grant Aid and Technical Cooperation projects

Japan has previously implemented Grant Aid projects to strengthen maternal and child health care and development of medical facilities, as well as health-related Knowledge Co-Creation Program, etc. Based on these past experiences, the utilization of the equipment after the implementation of the projects, and the reputation and trust in Japanese medical equipment led to the implementation of the Project as the first Finance and Investment Cooperation project in Moldova. Furthermore, the Technical Cooperation Project, "The Project for Improving Medical Device Management", was implemented at the same time the equipment was installed under the project, with the aim of establishing a system for the maintenance and management of medical equipment. Accordingly, the Departments/Sections of Biomedical Engineering (D/SBME) have been established and BMEs have been assigned in the target hospitals, which have become indispensable for the efficient and effective use of equipment. Moreover, the equipment is also used to respond to COVID-19 and provide medical services to displaced people from Ukraine. These connections continued after the project was completed, contributing to the improvement of medical services in the country.

Mozambique

Grant Aid

Maputo Fish Market Construction Project

Contributing to a hygienic environment for sale and supply of fresh fishery products by improving facilities and equipment for public fish markets

External Evaluator Hisae Takahashi, Octavia Japan, Co., Ltd.

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

- Grant Limit/Actual Grant Amount: 918 million yen/ 917 million yen
- Exchange of Notes: February, 2012
- Project Completion: December, 2015
- Implementing Agencies: Ministry of Fisheries / Maputo Municipality
- Overall Goal:
  Contributing to the improvement of the environment for fish marketing and increased income for artisanal fishermen, retailers, etc.
- Project Purpose:
  To increase the amount of the fishery products handled in accordance with the Guidelines for Operation and to expand the capacity of the facilities.
- Output:
  To construct the public fish market and install the equipment.

Effects of Project Implementation (Effectiveness, Impact)

Thanks to the development of facilities and equipment that complies with the Guidelines for Operation on Market Hygiene Management, the hygiene conditions of the public fish Market in Maputo city have significantly improved. Due to the unavailability of data, it was difficult to analyze the achievement status on the amount of ice that can be produced and purchased at the market, which is the operation and effect indicator. The amount of fishery products handled at the market is significantly below the target due to a combination of factors, including the high sales price compared to neighboring markets and the market's location. As a result, the contribution to the livelihoods of artisanal fishermen and retailers was limited. In light of the above, the project has achieved its objectives only to a certain extent. Therefore, effectiveness and impacts of the project are moderately low.

Relevance/Coherence

The project is in line with the Mozambican development policy, which has indicated the importance of promoting artisanal fishery as a means of contributing to poverty reduction, and development needs, and also Japan's Assistant Policy, which took "poverty reduction through industrial vitalization" as a key issue. In addition to a certain degree of coordination with JICA's grant aid "The Project for rehabilitation of Maputo Fishing Port" and reference for the design of Maputo Fish Market by a project supported by the International Fund for Agricultural Development, the contributions to SDGs "Goal 1: No poverty (end poverty in all its forms everywhere)" and "Goal 9: Industries, innovation, and infrastructure" were also confirmed. Therefore, its relevance and coherence are high.

Efficiency

The construction of Maputo Fish Market's facilities, civil works on the shore protection, procurement of equipment, such as an ice-making machine, consulting services, and guidance on the operation of the market and maintenance of the equipment were generally implemented as planned. The project cost slightly exceeded the plan, and the project period significantly

Fishery Products Displayed at a Stand in Maputo Fish Market

Fishery Products Displayed at Another Market

exceeded the plan due to the delay in obtaining approval for the Environmental Impact Assessment and the unsuccessful bidding. Therefore, efficiency of the project is moderately low.

Sustainability

No issues have been observed with respect to the policy/system and institutional/organizational aspects of the operation and maintenance of the project. However, there are problems with the technical aspect related to the maintenance of ice-making machines and refrigeration facilities, the operation in the red of Maputo Fish Market, and some equipment that have frequently occurred, and these are not expected to be resolved. Therefore, sustainability of the project effects is moderately low.

Conclusion, Lessons Learned and Recommendations

The project is evaluated to be partially satisfactory. Recommendations would include a reduction in rental fees and late payment fees considering the burden on retailers and restaurant owners. It would be also preferable to require to record and keep the information on maintenance of the facilities and equipment and the collected amount, as well as to promote activities to encourage consumers to choose fresh products. It is advisable for JICA to solicit opinions from retailers who use ice, and select an ice-making machine when procuring the one, which is currently under preparation. Moreover, in the market, the hygiene and freshness of fishery products are valued, which is different from conventional price-oriented handling. Therefore, it is necessary to provide opportunities where its importance is fully understood before transferring technology through training, etc., and continuously work to deepen understanding. When parts and consumables are purchased through a tendering process in accordance with national rules, as in Mozambique, it is necessary to examine local procurement routes when planning the project, and select equipment so that parts will not be difficult to obtain.

The exterior of Maputo Fish Market

Operation and Effect Indicators of the Project

	Baseline value	Target value	Actual value			
	2011	2015	2018	2019	2020	2021
		2 years after completion	Completion year	1 year after completion	2 years after completion	3 years after completion
Amount of the fishery products handled in accordance with the Guidelines in the market (tons/year)	0	Approx. 350	126	116	122	121
Amount of ice that can be purchased in the market (tons/day)	0	Approx. 2	N.A.	N.A.	N.A.	0.07 (2.7)[1]
Number of retailers who can handle the products in the appropriate business environment (persons)	0	Approx. 100	100	100	100	100
Number of cars parked legally in the market (cars/day)	0	Approx. 38	9	N.A.	6	8

Source: Documents provided by JICA, documents provided by the executing agency, documents provided by the parking management company, and interviews with retailers.
1 An average of 0.07 tons/day was reported from Maputo Fish Market, and an average of 0.09 tons/day was reported from Maputo Municipality. On the other hand, since it was apparent during the site survey that retailers were purchasing and using much more ice than the above-mentioned amount, the local assistant interviewed the retailers (90 out of 100 retailers in total; the remaining 10 were either absent or not using ice at the time of the interview) about their average daily ice purchases, and estimate was calculated based on the results, which was approximately 2.7 tons/day.

Key Point of Evaluation

Consideration for projects that require changes in local practices

In Mozambique, it is common to buy and sell inexpensive frozen fishery products. However, to maintain hygienic conditions and freshness of fishery products as stipulated by the Guidelines for Operation, Maputo Fish Market does not permit the sale of frozen fishery products, and the sales price, which reflects the high quality and freshness of the products, can be considered one of the reasons for the sluggish growth in the volume of fishery products handled. If actions that differ from conventional practices (maintaining the freshness of fishery products by refrigerated storage, and a hygienic environment) are required, the meaning and importance of these actions must be understood by retailers and customers at the planning stage. Moreover, the constructed Maputo Fish Market has been becoming a tourist attraction in Maputo City due to its hygienic condition and design with restaurants located on the same site. Accordingly, the added value of the market has been recognized, and it is desirable to continuously work to deepen the understanding of customers through the holding of seafood shows and other events after the completion of the project.

Iraq

Finance and Investment Cooperation

Irrigation Sector Loan

Revitalizing irrigation drainage canals and irrigated farmland by providing equipment and machinery necessary for irrigation and drainage

External Evaluator: Masami Tomita, i2i Communication, Ltd.

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

- Loan Amount/Disbursed Amount:
  9,514 million yen/9,376 million yen
- Loan Agreement: January 2008
- Terms and Conditions:
  Interest Rate: 0.75%
  Repayment Period: 40 years (Grace Period: 10 years)
  Conditions for Procurement: General Untied
- Final Disbursement Date: July 2018
- Implementing Agency:
  Ministry of Water Resources (MOWR)
- Overall Goal:
  To contribute to Iraq's economic and social recovery through the revival of its irrigated agriculture
- Project Purpose:
  To revitalize the existing irrigation drainage canals and irrigated farmland
- Output:
  To provide equipment and machinery necessary for irrigation and drainage throughout Iraq (pump stations targeted by the project are located in two governorates)

Effects of Project Implementation (Effectiveness, Impacts)

River inflows into Iraq have been decreasing due to the development of water resources in the upstream countries, and the country is facing severe water shortages. Therefore, the area benefited by the project has not increased since the time of the project appraisal, and the volume of water pumped of the drainage pumps installed in the project is significantly below the target volume. Although the improvement in the maintenance status of existing irrigation drainage canals was qualitatively confirmed, the achievement of the production target by major crops in the benefited area at the pump stations under the project varied widely by region and crop, and the contribution of the project to the revitalization of irrigated farmland and Iraq's economic and social recovery through the revival of its agriculture appears to be limited. Therefore, the effectiveness and impacts of the project are moderately low.

Relevance/Coherence

The relevance of the project is high, as the project is fully consistent with the development policies and needs of Iraq to rehabilitate irrigation infrastructure, where the breakdown of irrigation and drainage pumps and the lack of maintenance of irrigation drainage canals had worsened due to long years of conflict and economic sanctions. In addition, the coherence of the project is high, as the project is consistent with Japan's

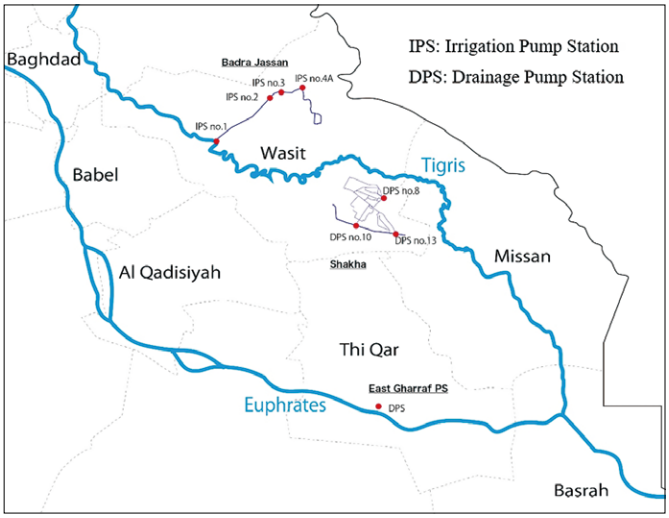
Drainage Pumps Installed under the Project

East Gharraf Drainage Pump Station

ODA policy which prioritizes support for global issues and peacebuilding, collaboration was achieved with the "Project for Spreading Water Users Associations for the Efficient Use of Irrigation Water" (2012-2015), and duplication with other donor support was avoided. Therefore, the relevance and coherence of the project are high.

Efficiency

Irrigation and drainage pumps in eight pump stations in total were renewed mostly as planned. A total of 54 pieces of equipment and machinery for the maintenance of irrigation drainage canals were additionally procured, while the number of generators procured was decreased by 15 units. While the project cost was within the plan, the project period significantly exceeded the plan. Therefore, the efficiency of the project is moderately low.



Project Location Map

Sustainability

Generally, no problems have been identified in terms of the policy/system, technical, financial, environmental and social aspects, and preventive measures against risks. However, the locations and operational status of the maintenance equipment and machinery procured under the project are unknown. Thus, some issues have been observed in the institutional/organizational aspect and the current status of operation and maintenance, and these are not expected to be improved. Therefore, sustainability of the project effects is moderately low.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be partially satisfactory. At the time of the project appraisal, JICA and the Iraqi side agreed that all the maintenance equipment and machinery procured under the project would be registered in the asset management records of MOWR, and that the ministry would update the asset management records upon receiving periodic progress reports on the status of the equipment and machinery from the regional offices to which the equipment and machinery were distributed. An equipment list and a deployment map were prepared, with the formatting for updating the list every six months having been completed before the project completion. However, they have not been updated. With respect to important matters agreed upon, the status of implementation should be regularly checked and monitored through the JICA office.

Annual Total Volume of Pumped Water for Each Pump

(Unit: 1,000m³/year/pump)

Pump Station	Baseline	Target	Actual	
	2008		2021	
		After completion	3 years after completion	
Badra Jassan Irrigation Pump Station No.1	40,824	58,320	88,128	151%
Badra Jassan Irrigation Pump Station No.2	40,824	58,320	44,064	76%
Badra Jassan Irrigation Pump Station No.3	40,824	58,320	44,064	76%
Badra Jassan Irrigation Pump Station No.4A	36,742	52,488	38,916	74%
Shakha Drainage Pump Station No.8	11,030	19,440	9,720	50%
Shakha Drainage Pump Station No.10	9,072	16,200	4,350	27%
Shakha Drainage Pump Station No.13	15,967	28,512	14,250	50%
East Gharraf Drainage Pump Station	0	67,392	40,355	60%

Source: documents provided by JICA and MOWR
Note: The right most column shows the percentage of target achievement.

Key Point of Evaluation

Project management for smooth implementation under the influence of conflicts

Since 2009, the JICA Iraq Office has commissioned the UNDP Iraq Office to provide monitoring support during project implementation for all the projects implemented by JICA in Iraq. UNDP, as a neutral third-party organization, has reported the status of project sites that JICA could not visit due to security reasons, coordinated between the Iraqi government and JICA, provided assistance to the Iraqi government on its internal procedural matters, and provided training on capacity gaps identified through the monitoring. This avoided further delays in the project, which was the first Japanese ODA loan project under the influence of the conflict.

COVID-19 Pandemic Response Highlights

Tunisia
Finance and Investment Cooperation

National Television Broadcasting Center Project

The Project has contributed to disseminating information related to health and hygiene and providing educational opportunities

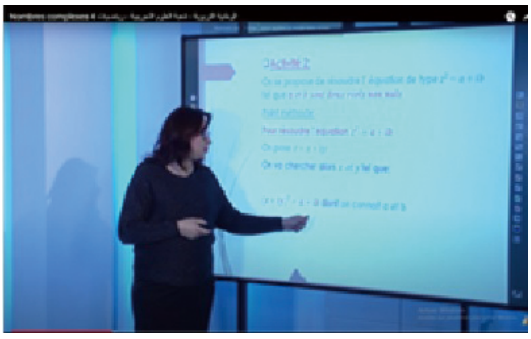
External Evaluator Kenichi Inazawa, Octavia Japan, Co., Ltd.

1 Overview of evaluation results

This project aimed to enhance television broadcasts by introducing broadcasting equipment and by transferring technologies to the new television broadcast center of the Tunisia Television Establishment (Etablissement de la Télévision Tunisienne or "ETT") responsible for public broadcasting, thereby contributing to the realization of highly reliable public television broadcasting, increased opportunities to provide information to the public through television broadcasting, and the promotion of mutual understanding between Japan and Tunisia.

Prior to the start of this project, the ETT had limited editing equipment for program production, ranging from news to entertainment. Broadcasting was performed in a control room for analog broadcasting, and programs produced were manually recorded on cassette tapes that were complicated to use. Accordingly, it used to take an enormous amount of time from production to broadcasting. This project introduced broadcasting equipment (e.g., 12 units of digital non-linear editing devices for TV programs, seven units of the same devices for news programs, etc.). As a result, the number of programs produced and the amount of broadcasting time increased. The two high-definition (HD) outside broadcasting vans, that were also introduced by this project, are also fully operational at program production sites, which has led to an improvement in the quality of broadcasting, especially in sports broadcasts such as soccer. After the implementation of this project, the work efficiency of TV program production and the quality of program contents have improved, and so have the technical level and motivation of operative staff, exceeding the initial goals.

In addition, Japanese TV programs were provided through the "Project for the Improvement of TV Programs of Tunisian Television" (Cultural Grant Aid in 2015). These have been highly appreciated by Tunisian viewers and rebroadcast every year in recent years, and have helped Tunisian viewers deepen their understanding of Japanese culture, traditions and lifestyles. It was also revealed that viewers have more trust in the state-run broadcast as a source of information. Therefore, effectiveness and impacts of the project are more than what was expected.



Educational Channel

2 Contribution to measures against COVID-19

This project was completed in 2019, and TV broadcasting had already begun when the COVID-19 spread from 2020 onwards. During the COVID-19 pandemic, the ETT established a new educational channel and broadcasted many programs related to infectious disease control, health and hygiene.

From 2020 onwards, many educational institutions had to close as the COVID-19 spread. Anxiety increased especially among students who were supposed to take entrance exams, which became a social problem. The ETT took this issue seriously, focused on cooperation and coordination with the Ministry of Education to overcome the situation, and launched an educational channel for students who could not attend school or were forced to stay at home. The content ranges from children's programs to educational programs such as mathematics, physics, and literature. The ETT broadcasts about 200 programs in a year, and the studio equipment procured through this project (e.g., program production room, virtual studio, graphics production room, post-production room[1], etc.) greatly contributed to the start of this educational channel.

Introduced Editing Equipment

3 Recommendations and lessons learned

Japanese TV programs were provided during the implementation of this project, and they have been rebroadcast every year recently. The hardware support (procurement and installation of equipment to organize programs) and operational support (provision of TV programs) have provided the ETT and general viewers with opportunities to get to know and understand Japan better. When formulating similar projects in the future, it is important to aim for high assistance effects by combining operational support, such as the introduction of program contents, with the hardware support.

As educational opportunities were restricted during the COVID-19 pandemic that began in 2020, the broadcasting equipment introduced through this project has been helpful in producing and organizing programs for new channels, including the educational channel. The information provided through these programs also served as a means for the general public to acquire correct knowledge. Therefore, the timing and significance of the implementation of this project were outstanding.

1 A space used for editing video and music, recording and correcting narration and sound effects, and mastering.

Ghana

Grant Aid

The Project for the Construction of Advanced Research Center for Infectious Diseases at Noguchi Memorial Institute for Medical Research (NMIMR)

Contribution to strengthening the capacity of Ghana and West Africa as a whole to respond to infectious diseases

External Evaluator Hamada Mayumi, Foundation of Advanced Studies on International Development (FASID)

1 Overview of evaluation results

This project was implemented to improve the research, testing and educational functions of the Noguchi Memorial Institute for Medical Research (hereinafter referred to as the NMIMR) by constructing the Advanced Research Center for Infectious Diseases (ARC), thereby contributing to strengthening the capacity to respond to infectious diseases in Ghana and West Africa as a whole. NMIMR has been functioning as a core medical research organization since its establishment in 1979 with support from Japan. This project was in line with Ghana's development policy and development needs, as well as Japan's development cooperation policy at the time of planning. Synergies between this project, a Science and Technology Research Partnership for Sustainable Development (SATREPS) program, and the Third-country Training were anticipated at the time of planning, and they were observed when these projects were implemented as planned. Regarding collaboration with projects supported by other organizations except for JICA, training by other donors and research with Japanese universities were jointly implemented, and mutual linkage was recognized. Therefore, its relevance and coherence are high. The outputs of this project were mostly achieved and the project cost on the Japanese side was within the plan, although the project period exceeded the plan. Therefore, efficiency of the project is high. Regarding the project objective, i.e., improvement of the NMIMR's functionality, the indicators for both quantitative and qualitative effects have been achieved, and the expected impact has been realized. Therefore, effectiveness and impacts of the project are high. Slight issues have been observed in the technical aspect concerning the operation and maintenance of the project. However, there are good prospects for improvement/resolution. Therefore, sustainability of the project effects is high. In light of the above, this project is evaluated to be highly satisfactory.

2 Contribution to measures against COVID-19

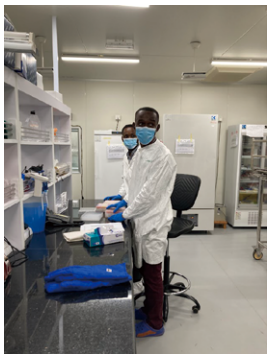
Initially, the NMIMR was the only institution in Ghana that could conduct PCR tests for COVID-19, and it conducted 80% of the tests in Ghana in the early stages of the disease's spread. A major factor that made this possible was the construction of the ARC under this project, which made the-state-of-the-art facility and equipment available. In addition, NMIMR hired a large number of staff in a short period of time, and inspections were conducted 24 hours a day under a shift system, and the staff of the NMIMR responded to this by staying overnight. These made it possible to perform a large number of PCR tests simultaneously. Besides, NMIMR provided training to 56 domestic laboratories, greatly contributing to the increase in the number of laboratories capable of PCR testing. Moreover, the NMIMR has made contributions in genetic analysis and surveillance. Furthermore, the NMIMR conducted training on methods for testing and analysis for laboratory technicians from neighboring countries. This contributed to strengthening the capacity of neighboring countries to respond to COVID-19.

In this way, this project has significantly contributed to the fight against COVID-19 in Ghana and neighboring countries. At the same time, it is noteworthy that the NMIMR's high-quality research and testing capacity, the prompt decisions and responses by the Ghanaian government and the NMIMR, and the NMIMR staff's sincerity shown in the crisis response, which made this contribution possible.

Noguchi Memorial Institute for Medical Research (from the road)

Autoclave (sterilization machine)

Inspection work in progress (photo by NMIMR)



Young Researchers in the Laboratory BSL-3 (photo by the evaluator)

3 Recommendations and lessons learned

Under this project, Biosafety Level-3 (BSL-3) laboratories were provided, which enabled inspections on highly infectious pathogens such as Ebola hemorrhagic fever. Official certifications are required for HEPA filter replacement, which is essential for ensuring the safety of BSL-3 laboratories. Thus, it was recommended that NMIMR would take responsibility for ensuring that certification was acquired. On the other hand, the implementing consultants exercised ingenuity in designing the facilities from the perspective of enhancing sustainability at the planning stage. At that time, people involved in the NMIMR, the executing agency, were involved in repeated discussions. This was beneficial for good maintenance of the facility. A lesson learned was that using materials and equipment that can be procured locally, making the specifications easy to repair, and involving local stakeholders during planning through repeated discussions are effective.

List of Internal Ex-post Evaluations

In principle, internal ex-post evaluations are carried out for projects costing 200 million yen or more but less than one billion yen. Click on a project name to jump to see its evaluation report.

Country	Evaluation No.*1	Project No.*2	Scheme*3	Project name
Mongolia	1	1	T	Project for Improvement for Planning and Implementation Skills of Ulaanbaatar Master Plan
	2	2	T	The Project on Capacity Development in Urban Development Sector in Mongolia
Kyrgyz	3	3	G	The Project for Improvement of Workshops for Road Maintenance Equipment
Sri Lanka	4	4	T	The Project for Formulation of Greater Kandy Urban Plan
	5	5	T	Technical Cooperation for Landslide Mitigation Project
	6	6	G	The Project for Rehabilitation of Kilinochchi Water Supply Scheme
El Salvador	7	7	T	Horticultural Farmers' Profitability Improvement Project in the Eastern Region of the Republic of El Salvador
Nicaragua	8	8	T	Vocational Training Improvement Project in Agricultural and Livestock Sector
Colombia	9	9	T	Project for Strengthening Flood Risk Management Capacity
Kenya	10	10	T	Rice-based and Market-oriented Agriculture Promotion Project
Zimbabwe	11	11	T	The Development of a Geospatial Information Database Project
Burundi	12	12	T	Project for Capacity Building of Provincial Health Staff for Maternal and Child Health
Iraq	13	13	T	The Project on Horticulture Technology Improvement and Extension
	14	14	T	Project for Spreading Water Users Associations for the Efficient Use of Irrigation Water
Jordan	15	15	G	The Project for the Construction of the Petra Museum
Indonesia	16	16	T	Project for Enhancement of Nursing Competency through In-Service Training
Malaysia	17	17	T	Project on Sustainable Development for Biodiversity and Ecosystems Conservation in Sabah
Philippines	18	18	T	The Project for Cordillera-wide Strengthening of the Local Health System for Effective and Efficient Delivery of Maternal and Child Health Services
	19	19	T	Project for Enhancing Capacity on Weather Observation, Forecasting and Warning
	20	20	T	Project for Supporting Senior High School (SHS) Program in Technical Vocational High Schools
Cambodia	21	21	T	Project for Facilitating the Implementation of REDD+ Strategy and Policy
	22	22	T	The Project for Strengthening Capacity for Maintenance of Roads and Bridges
	23	23	G	The Project for Expansion of Lower Secondary Schools in Phnom Penh
Laos	24	24	T	Project for Urban Water Environment Improvement in Vientiane Capital
Viet Nam	25	25	T	Project for Capacity Development on Integrated Management of Municipal Solid Waste
Fiji	26	26	G	The Project for the Rehabilitation of the Medium Wave Radio Transmission
	27	27	G	The Project for Improvement of Equipment for Disaster Risk Management
Bangladesh	28	28	T	Safe Motherhood Promotion Project
		29		Safe Motherhood Promotion Project(Phase 2)
	29	30	G	The Project for Ground Water Investigation and Development of Deep Ground Water Source in Urban and Rural Areas

*1 Evaluation No. = Number corresponding to number of evaluations performed
*2 Project No. = Number corresponding to number of projects under evaluation
*3 T: Technical Cooperation, L: ODA Loan, G: Grant Aid, P: Private-Sector Investment Finance
In cases where multiple schemes were evaluated together, the number of evaluations is counted for the schemes without parentheses.
*4 However, for evaluation numbers 16 to 64, the evaluation was conducted under the previous evaluation criteria (evaluation completed this fiscal year).
*5 Of the 65 projects for which evaluation was finalized in FY2022, only 64 projects are listed because one project falls under the category of "Non-Disclosure Information" under the Act on the Protection of Personal Information Held by Incorporated Administrative Agencies, etc.

Country	Evaluation No.*1	Project No.*2	Scheme*3	Project name
Bangladesh	30	31	T	Project for Improving Public Services through Total Quality Management
	31	32	T	Bridge Management Capacity Development Project
India	32	33	T	Project for Maximisation of Soybean Production in Madhya Pradesh
	33	34	T	Capacity Development Project for Non Revenue Water Reduction in Jaipur
Nepal	34	35	T	The Project on Urban Transport Improvement for Kathmandu Valley
	35	36	T	The Project for Strengthening the Capacity of Court for Expeditious and Reliable Dispute Settlement
	36	37	T	The Support for Improvement of Primary School Management
		38		Support for Improvement of Primary School Management (SISM) Phase- 2
Sri Lanka	37	39	T	Project for Improving of Meteorological Observation, Weather Forecasting and Dissemination
	38	40	T	The Project for Enhancement of Production System of Certified Vegetable Seed in Sri Lanka
Antigua and Barbuda	39	41	G	The Project for Improvement of Fishery Equipment and Machinery in Antigua and Barbuda
Grenada	40	42	G	The Project for Improvement of Fishery Equipment and Machinery in Grenada
Mexico	41	43	T	Joint Research Project on Formation Mechanism of Ozone, VOCs, and PM2.5 and Proposal of Countermeasure Scenario
Saint Vincent and the Grenadines	42	44	G	The Project for Improvement of Fishery Equipment and Machinery in Saint Vincent and the Grenadines
Bolivia	43	45	G	Project for Introduction of Clean Energy by Solar Electricity Generation System
	44	46	T	Urban Transport Improvement Master Plan Project for Santa Cruz de la Sierra Metropolitan Area
	45	47	T	Maternal and Child Health Network Improvement Project in Potosi
Brazil	46	48	T	Project for E-waste Reverse Logistics Improvement
Sudan	47	49	T	Capacity Building Project for the Implementation of the Executive Programme for the Agricultural Revival
Ethiopia	48	50	T	Project for Capacity Development for Improving Learning Achievement in Mathematics and Science Education in Ethiopia
Kenya	49	51	T	Project for Capacity Development for Promoting Rural Electrification Using Renewable Energy
	50	52	T	Project on Enhancing Gender Responsive Extension Services in Kenya
	51	53	T	Water Supply and Hygiene Improvement Project in Host Communities of Dadaab Refugee Camps
Namibia	52	54	T	Flood- and drought-adaptive cropping systems to conserve water environments in semi-arid regions
Uganda	53	55	T	Secondary Science and Mathematics Teachers' Project Phase III
Democratic Republic of the Congo	54	56	T	Support to Human Resource Development in health sector of Democratic Republic of the Congo
		57		Support to Human Resource Development in health sector of Democratic Republic of the Congo Phase 2 (PADRHS Phase 2)
Gabon	55	58	T	Conservation of Biodiversity in Tropical Forest through Sustainable Coexistance between Human and Wild Animals
	56	59	G	The Project for Introduction of Clean Energy by Solar Electricity Generation System
Madagascar	57	60	T	Project of Integrated Approach Development in order to Promote Environment Restoration and Rural Development in Morarano Chrome
Mozambique	58	61	T	Sustainable Jatropha Biofuel Production in Mozambique
	59	62	T	The Project for Promotion of Sustainable 3R Activities in Maputo
	60	63	T	The project for strengthening pedagogical and technical skills of teachers of health training institute
Rwanda	61	64	T	Project for Increasing Crop Production with Quality Extension Services in the Eastern Province
Senegal	62	65	T	Project on Promotion of rural development in harmonization with Ecology and Economy: Promotion of Ecovillages
	63	66	G	Project for Drinking Water Supply and Improvement of Hygiene Conditions in Rural Areas
	64	67	T	Project for Renforcement for Maternal and New Born Health Care Phase 2

Jordan

Grant Aid

The Project for the Construction of the Petra Museum

Department conducting internal evaluation: Jordan Office

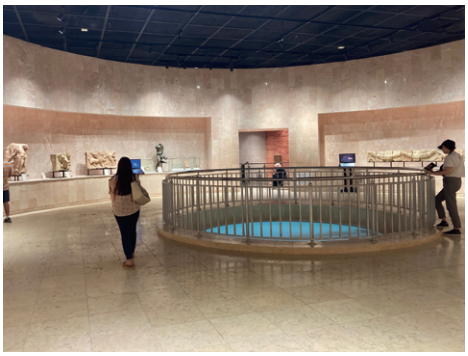
- Grant Limit / Actual Grant Amount: 783 million yen (before amendment: 686 million yen) / 777 million yen
- Exchange of Notes: March 1, 2014 (After amendment: March 11, 2015 and September 25, 2016)
- Project Completion: October 3, 2018
- Implementing Agency: Petra Development and Tourism Regional Authority
- Overall Goal: To contribute to attracting tourists to the town of Wadi Musa in Ma'an Governorate.
- Project Purpose: To strengthen the functions of exhibiting historical and cultural heritages and providing information on the importance of preserving archaeological sites.
- Outputs: Development of a museum at the site adjacent to the entrance of the Petra Ruins (total floor area: approximately 1,800 m², exhibition room: 902 m², entrance: 303 m², administration division: 270 m², etc.) and installation of facilities and equipment for exhibitions (exhibition projectors, lighting, touch panels, etc.)

1 Evaluation results/Project overview

Although Jordan has an abundance of cultural heritage to draw on as tourism resources, there has been insufficient development and utilization of facilities to attract tourists. This project generally achieved the above-stated objective of the project to strengthen the functions of exhibiting cultural heritage and providing information on the importance of preserving archaeological sites, in accordance with the plan. The museum that was built appropriately preserves the valuable cultural heritage excavated from the Petra site and its surroundings. In addition, archaeological and ethnographic materials are displayed chronologically so as to aid understanding of their cultural value. The organizational structure, budget, and personnel necessary to operate the program have been maintained, and there are no problems in terms of sustainability of the project effects.

2 Lessons learned

When deciding on equipment to be provided through grant aid, it is important to carefully discuss with the executing agency the multiple options and their respective associated operating costs. The projectors procured under this project had defective lamps and were replaced through a local distributor, but this was very expensive. It is also necessary to check in detail whether universal design has been fully adopted from the facilities' design and construction stages. While the Petra Museum was designed for physical accessibility throughout, the doors of the main entrance are very heavy and not easy to open and close. When constructing facilities that will be used by a variety of people, it is essential to ensure from the design stage that the specifications ensure ease of use for everyone, including wheelchair users and other people with disabilities.



Gallery at the museum

3 Evaluator's remarks

Since the project's focus on human aspects of cooperation with individual experts ("Advisor for Tourism Development of Archaeological Sites" (2013–2015, 2016–2019)) and a technical cooperation project ("Project for Community-based Regional Tourism Development in Petra Region" (2015–2020)) was considered a key factor in its success, the initiatives and results of these related projects were carefully reviewed. In addition to indicators based on whether the exhibits are being displayed as planned, interviews were also conducted to explore the economic benefits to the local community generated by the establishment of the museum, especially to women, through employment and sales of goods, in order to report as specifically as possible on results that cannot be measured by these indicators alone. During the site survey, I was once approached by a European tourist who said, "Japan has made a wonderful contribution to human culture by creating this museum." I believe that the project was not only significant for the promotion of tourism in the Petra region, but also for Japan.

Handicrafts produced by local women's groups are purchased to be sold in the museum gift shop.

Kenya

Technical Cooperation

Rice-based and Market-oriented Agriculture Promotion Project

Department conducting internal evaluation: Kenya Office

- Project Cost (Japan side): 475 million yen
- Project Period: January 2012 – January 2017
- Relevant Partner Country Agencies: Ministry of Agriculture and Livestock Development (MoALD) / Cooperating Agencies: Ministry of Water, Sanitation and Irrigation (MoWSI), National Irrigation Authority (NIA)
- Number of Experts Dispatched: 18
- Number of Technical Training Participants: 30 (trained in Japan); 32 (trained in the third countries)
- Main Equipment Provided: Measuring devices, agricultural machinery, vehicles, office equipment, etc.
- Overall Goal: The market-oriented approach established in the Mwea Irrigation Scheme is disseminated and adopted in other irrigation schemes.
- Project Purpose: The agricultural profits of farmers in the Mwea Irrigation Scheme are through the market-oriented approach.
- Outputs: Proposal and establishment of a profitable rice-based farming system suitable for each model district and farmer.

1 Evaluation results/Project overview

In Kenya, the self-sufficiency rate for rice, which is in high demand particularly in urban areas, has been declining year by year, and before the project began, the rate had fallen below 20%, leaving the country dependent on imports from abroad to meet the shortage. This project was implemented with the aim of increasing rice production, improving farmers' income through the dissemination and application of market-oriented approaches in the target areas, and thereby contributing to the nationwide dissemination and application of this approach. The results showed that, despite the impact of a severe drought, the average earnings from irrigation of farmers in the target areas had increased at the time of the ex-post evaluation, and that efforts to apply the approach had begun outside of the target areas.

2 Lessons learned

The limited involvement of end-users (farmers) in the development of guidelines for each technology meant that some aspects were initially unacceptable to farmers and were not readily adopted. For similar projects in the future, guidelines should be developed with end-user participation, and a mechanism should be established to periodically review successive editions of the guidelines. In addition, the guidelines were somewhat academic and not farmer-oriented, resulting initially in lower-than-expected uptake by farmers. Experts must work closely with their counterparts and make deliberate efforts to include the intended users of the technology to be developed in the content in order to ensure efficient deployment and effective adoption.

3 Evaluator's remarks

This project was completed in 2017, three years before I (a member of the National Staff at the Kenya Office) started working at the Kenya Office, so I had to first understand the fundamentals of the project when conducting the internal evaluation, but this work was a rewarding learning experience. Based on my first experience with internal evaluation work in FY2021, I realized that the key is to build a rapport with the organizations concerned, and this time I started developing in-depth interactions with the participating farmers and the implementing agencies from an early stage. These exchanges made it clear that the reliability of the data collected would also be greatly enhanced, and proved very useful as the evaluation proceeded. They also highlighted the critical importance of preparation prior to the survey. In conducting an internal evaluation, I think it is important to visualize the steps from the preparation stage to completion. What was interesting to me was the difficulty of conducting an evaluation, which involves a careful and objective analysis of the views of the people involved while eliminating the subjective aspects. I found this approach to evaluation to be very compelling in terms of identifying what the true benefits of the project are, what lessons can be learned, and laying the groundwork for better implementation of similar projects in the future.

Line planting in a paddy field as practiced by one of the successful core farmers

A core farmer using a hand-pushed weeder in a rice field

Bolivia

Technical Cooperation

Urban Transport Improvement Master Plan Project for Santa Cruz de la Sierra Metropolitan Area

Department conducting internal evaluation: Bolivia Office

- Project Cost (Japan side): 277 million yen
- Project Period: February 2016 – December 2017
- Relevant Partner Country Agencies: Secretariat of Public Works and Land Use of the Department of Santa Cruz
- Number of Experts Dispatched: 10
- Number of Technical Training Participants: 9 (trained in Japan)
- Overall Goals:
  1. Traffic conditions are improved in Santa Cruz Metropolitan Area.
  2. Capacity of the related organizations to implement the master plan is improved.
- Project Purpose: By strengthening the capacity of the implementing agency through developing the transport improvement master plan for Santa Cruz Metropolitan Area, the project contributes to transport improvement in the metropolitan area.
- Outputs:
  1. The transport master plan for Santa Cruz Metropolitan Area for 2035 is formulated.
  2. Capacity is developed to implement the master plan.

1 Evaluation results/Project overview

In Bolivia's Santa Cruz de la Sierra metropolitan area, population and economic growth have resulted in urban transportation problems such as traffic congestion, poor public transportation services, and flooded roads due to inadequate drainage. Given these circumstances, this project aimed to improve the ability of implementing agencies to develop the master plan (policy) and to improve the traffic situation in the metropolitan area. Activities included conducting traffic surveys, studying measures to improve rainwater and drainage problems, and preparing a transportation master plan. This resulted in some improvements to the transportation situation. Specifically, improvements in transportation convenience during the rainy season and improvements in pedestrian streets and traffic control systems have resulted in shorter transit times and reduced traffic congestion. However, some municipalities faced a shortage of engineers and budgets in implementing this project.

2 Lessons learned

In the event that a change of government involving political turmoil is anticipated to affect the continuity of the project, in order to solve the transportation issues in the Santa Cruz de la Sierra metropolitan area, it is important to continue to work with the implementing agencies to maintain personnel levels, and to include private companies and academic organizations in the project plan. In addition to such efforts, more frequent follow-up by JICA's overseas office is required after a change of government. Two years after the completion of the project, the government of Bolivia changed, and it was found that most municipalities did not have sufficient staff and budgetary resources to publicize the Master Plan developed under the project or to implement the proposed projects.

It is also important to share information and experience with neighboring countries that share many similarities in laws, regulations, and budgetary situations. In particular, the sharing of practical examples from countries where JICA has undertaken cooperation projects in the field of urban transportation will help promote the implementation of such projects. As part of this project, other countries in the Latin American region shared practices with the city of Santa Cruz de la Sierra, and as a result, the proposed initiatives will continue to be implemented after the project completion.

3 Evaluator's remarks

Since many of the local government leaders and officials in the target area were replaced in the presidential election held after the completion of this project, the survey was conducted in consideration of the impact of this change. Political impact was felt beyond the technical relevance and economic benefits indicated in the Master Plan, such as the temporary halt of the introduction of BRT (Bus Rapid Transit) in the city of Santa Cruz de la Sierra, which had progressed to the construction of the routes (*development of the BRT is expected to resume at a later date). However, we were able to hire a local consultant in Bolivia who, as well as a personal network, had experience in the field of urban planning and urban transportation, which enabled us to conduct a detailed study on the status of realization of the technical proposal. In addition to the proposals that were implemented prior to the change of government, we were able to confirm that, even though many of the parties involved have been replaced as a result of the change, some of the proposals remain under consideration. This survey enabled us to reaffirm the significance of this type of technical cooperation for development planning.

BRT Corridor

BRT Bus Station

Identification of Lessons Learned and Application to Projects

What are lessons learned?

Lessons learned refer to knowledge (value-added knowledge) gained through experience. The lessons learned from the evaluation results represent important knowledge for JICA's project management. The main purpose of applying lessons learned is for JICA, as a "learning organization," to maximize development effects through better project implementation. It is important to ensure that failures and successes encountered through the PDCA cycle of a project are recorded through monitoring and evaluation. Furthermore, it is essential to establish a cycle of learning and lesson application whereby lessons learned are used to improve projects, and new lessons are learned again.

Lessons learned from individual projects and "knowledge lessons"

In order for lessons learned to be specifically applied and reflected in the development of similar projects in the future, it is essential to ensure and improve the quality of the information contained in the lessons learned. From a quality (practicality) perspective, the following four perspectives are essential in identifying lessons learned.

(1) Specificity (is the information provided in the lessons learned specific enough to be used in project development?)
(2) Logic (are the results logically derived from the overall evaluation results?)
(3) Generalizability (can they be applied to similar projects?)
(4) Feasibility (do they present feasible solutions or measures?)

Improving the quality of lessons learned requires not only improving the quality of information learned from individual projects, but also a process to convert them into generalizable and feasible "knowledge lessons" (to add value by conducting cross-sectoral analysis and processing). JICA divides these lessons into the following two broad categories.

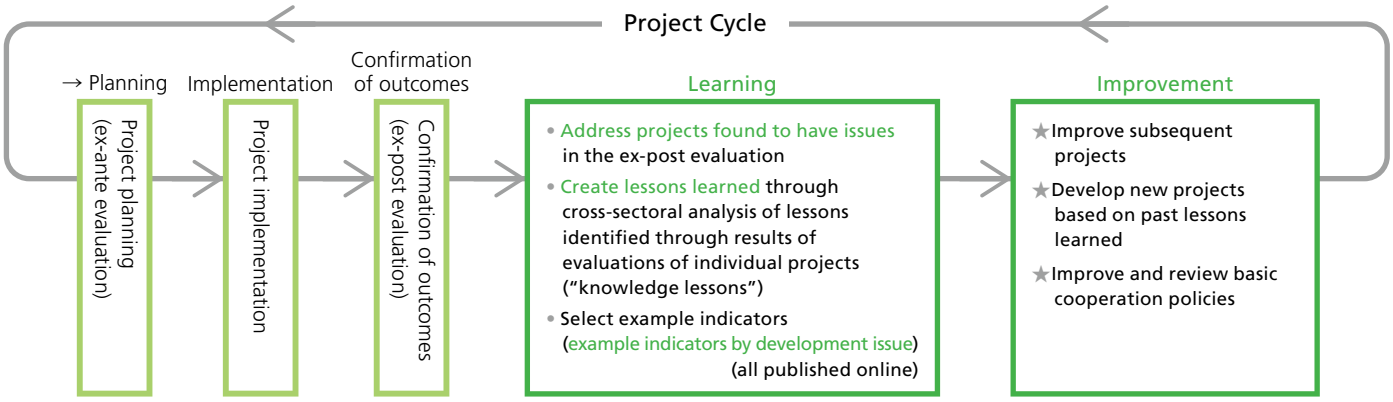
(1) Lessons learned from individual projects: Primary information from individual project evaluations
(2) "Knowledge lessons": Secondary lessons derived from cross-sectoral analysis and processing of multiple lessons learned from individual projects

Reflecting lessons learned in projects

JICA is working to enhance feedback so that the evaluation results obtained from monitoring and evaluation of individual projects and each of the above lessons learned will lead to "Action" in the PDCA cycle. One of these efforts is to reflect lessons learned from past projects in the projects currently in development.

In the preliminary evaluation of individual projects, lessons learned from individual projects and knowledge lessons should be used for planning the project in question. Specifically, the ex-ante evaluation sheet includes an "Application of Lessons Learned from Previous Similar Projects" field, requiring that lessons learned from previous projects must be used. In addition to describing the lessons learned that were applied, it is recommended that the lessons learned be documented in a report or similar record so that the specific points being applied and the ideas that led to their application can be identified. In order to ensure that lessons learned are applied during the project development phase, the Evaluation Department introduces and shares relevant lessons learned from individual projects and knowledge lessons with the department in charge of the project during the pre-evaluation phase, and encourages their active application. In order to make it possible to incorporate lessons learned from past successes/failures in similar projects into project planning, JICA has compiled and published a reference list of representative lessons learned corresponding to the development issues to be solved and the types of problems to be solved. For details of this reference, refer to **[➡Lessons Learned from Evaluation Results | Project Evaluation | Projects — JICA]**.

It is expected that knowledge lessons will be applied not only to individual projects, but also to the improvement of issue-specific strategies and project systems.



Applying Lessons Learned (Feedback Seminar Highlights)

Importance of Feedback

Timely communication and sharing (feedback) of evaluation results to project stakeholders is an essential process to avoid repeating the same mistakes, ensure smooth implementation of projects, and enhance project effectiveness and sustainability. Although stakeholders within JICA are involved in the evaluation of individual projects, they do not necessarily have a full view of the entire project evaluation process. Therefore, in order to analyze and summarize the findings and lessons learned from individual ex-post evaluations and project processes in a cross-sectoral manner, and to contribute to developing better projects, feedback seminars are held for relevant parties within JICA.

What are feedback seminars?

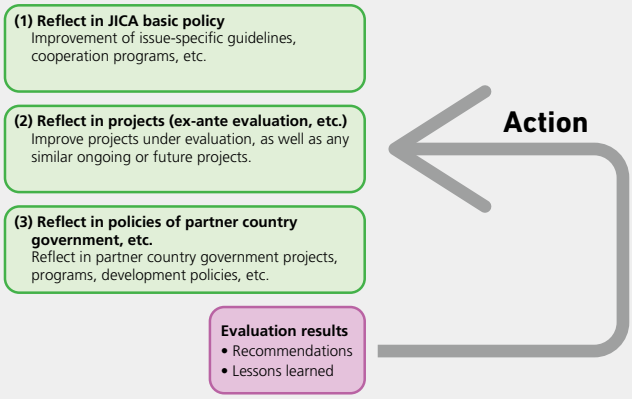
Feedback seminars are held jointly with JICA's Operations Strategy Department every year to share lessons learned from the ex-post evaluation and project implementation monitoring process within JICA and to further improve JICA projects going forward. As such, it is a forum for broad discussions with stakeholders within JICA on lessons learned that will inform project development and implementation monitoring, based on a cross-sectoral analysis and summary of the results of ex-post evaluations conducted in the previous fiscal year.

Results of the feedback seminars

Seminars are held not only for project stakeholders at JICA head office, but also for overseas offices. In FY2022, seminars are also being held in English and Spanish for national staff working in overseas offices in South Asia and Central/South America, respectively.

During the feedback seminar, lively discussions aimed at applying lessons learned are held among the participants regarding the material presented at the seminar. As such, feedback is not a one-way street, but also an opportunity for all parties involved to learn from each other through mutual exchanges of ideas.

Feedback on Evaluation Results



Internship Experience: The Importance of Further Applying and Systematizing Lessons Learned in JICA Projects

Believing that evaluation is a central component of the development of international cooperation, I was interested in JICA's evaluation methods and mechanisms, and participated in the JICA Internship Program for two months from August to September 2022. During the program, I was involved in analyzing the application of lessons learned during the ex-ante evaluation phase, creating a project logic model, and conducting ex-post evaluation work. I learned that even in JICA, which has a well-established evaluation system, the evaluation system is continuously reviewed to ensure the evolution of project development. From more than 100 lessons learned, I analyzed what lessons with similar content mean when abstracted, what are the structural causes of repeated lessons learned, and realized that different case managers have different attitudes toward the lessons learned application field, which has a consequent effect on the extent to which lessons learned are truly applied. In addition, I examined what mechanisms could be used to advance the application of lessons learned in order to maximize project impact.

Drawing on the knowledge I gained from the program, I would like to continue studying previous research on evaluation mechanisms and methods not only for large, but also small and medium-sized aid agencies and organizations, and to develop a feasible method for evaluating the medium- to long-term impact of projects on the environment and society, even where financial resources like those available to NPOs and NGOs are lacking. (Representative: Sato)

Group photo of interns

Examples of Applying Lessons Learned

—Use of Lessons Learned from Similar Past Projects for Projects in Progress—

Senegal Project for Drinking Water Supply and Improvement of Hygiene Conditions in Rural Areas (Grant Aid) (Internal Evaluation)

In Senegal, securing drinking water and improving sanitation conditions in rural areas represent major challenges. In particular, due to rock formations that make it difficult to exploit groundwater, only a few water supply facilities have been built in the regions of Tambacounda, Matam, and Kédougou.

Therefore, in order to improve drinking water supply and sanitary conditions in the above three regions, this project supported the construction of water supply facilities such as vehicle water stations and public water taps, and sanitary facilities such as public toilets and hand washing stations.

Ex-post evaluation of past water supply projects in Zambia and Senegal provided lessons regarding how coordination between water supply facility construction and hygiene improvement can promote synergistic effects, and how to establish a participatory maintenance and management system for residents. Therefore, these lessons were applied in the planning of this project, and in addition to the development of water supply and sanitation facilities, technical support was provided for the establishment and operation of water user management associations and sanitation facility maintenance committees, as well as for hygiene awareness activities for teachers and students at schools where sanitation facilities have been installed.

The implementation of this project resulted in achieving the target of 29,000 people with access to safe drinking water and sanitation facilities. In addition, waterborne diseases such as diarrhea, cholera, schistosomiasis, and skin diseases have decreased, and the infant mortality rate has been reduced in the areas covered by the project. In addition to this, the time required to fetch water has been significantly reduced, leading to a lessening of the burden on women and children. As a result of the participatory approach that applied lessons learned in the past and involved the beneficiaries from the earliest possible stage of the project, no major problems have arisen with respect to the operation and maintenance of the facilities. As such, it appears that this kind of approach may be effective in increasing awareness on the part of local residents and giving them a better sense of ownership of the facilities.

A well-maintained toilet installed at a school in the village of Mako, Kédougou region

India Tamil Nadu Investment Promotion Program (Phase 2) (ODA Loan) (External Evaluation)

The state of Tamil Nadu, located in southeastern India, is an important region for India's industrial development, where many Japan-based companies have established operations. However, a ranking of states by their business environment showed that Tamil Nadu ranked 12th out of 36 states and union territories in 2015 and only 18th in 2016, making improvement of the investment environment an issue to be addressed. Accordingly, this project was implemented to improve the investment environment in the state and boost foreign direct investment by encouraging the improvement of policies and systems relating to the promotion of private investment and industrial development, as well as by promoting the prompt realization of infrastructure development, principally infrastructure such as roads, electricity, water and sewage systems.

Based on ex-post evaluations of the Tamil Nadu Investment Promotion Program (the previous phase of this project) and similar projects, lessons have been learned regarding the importance, with respect to enhancing the effectiveness of investment climate improvement measures and reforms, of incorporating the views of the private sector and the issues they face into investment climate reform plans, as well as that of disseminating and sharing information with the private sector, including Japanese companies operating in the region.

Therefore, in this project, consultations were held with the implementing agencies while taking into account opinions from industry, including JETRO and the private sector, allowing an effective policy matrix to be developed. In addition, the Plan Monitoring Committee (PMC) meets regularly to review and share progress, with the participation of the Japanese Embassy, JICA, and JETRO. When problems arose, the Chairperson of the PMC (Undersecretary of the Finance Office) gave instructions to the responsible agencies to quickly resolve them. As a result of the improved investment climate, foreign direct investment in the state did not decline even amidst the COVID-19 pandemic.

Small-scale infrastructure project under the Program (Construction of a bypass road)