

Overview of the Ex-post Evaluation System

In order to ensure transparency and objectivity of operations evaluations, JICA conducts ex-post evaluations through external evaluations by external experts and internal evaluations primarily by JICA's overseas offices. The following pages present an overview of the results of ex-post evaluations conducted in FY2014 and their analysis.

◆Ex-post evaluation system

JICA conducts evaluations by using a uniform evaluation methodology in all three schemes; ODA Loan, Grant Aid and Technical Cooperation. In FY2014, the results of ex-post evaluations conducted were 100 external evaluations and 41 internal evaluations. In principle, projects costing over one billion yen are subject to external evaluations by third-party evaluators based on the results of field surveys to assure objectivity and transparency of the evaluation. Meanwhile, projects costing over 200 million yen and under one billion yen are subject to internal evaluation. Evaluations for those projects are conducted by overseas office staff through interviews from implementing agencies and field survey at project sites under the support of JICA Evaluation Department. (refer to p. 4 for details of the internal evaluation)

◆Rating system

In the ex-post evaluation system, each project is assessed for its relevance, effectiveness/impact, efficiency and sustainability in accordance with international standards (i.e. the Five OECD-DAC Evaluation Criteria). In the external evaluation process, projects are rated according to the following rating flowchart on a four-level scale; A (highly satisfactory); B (satisfactory); C (partially satisfactory); and D (unsatisfactory).

Although the rating is useful as means of indicating the effectiveness of the projects it does not take into account the difficulty of the projects or the degree of JICA's contribution towards their achievement. Thus, it does not reflect all aspects of implementation for development projects.

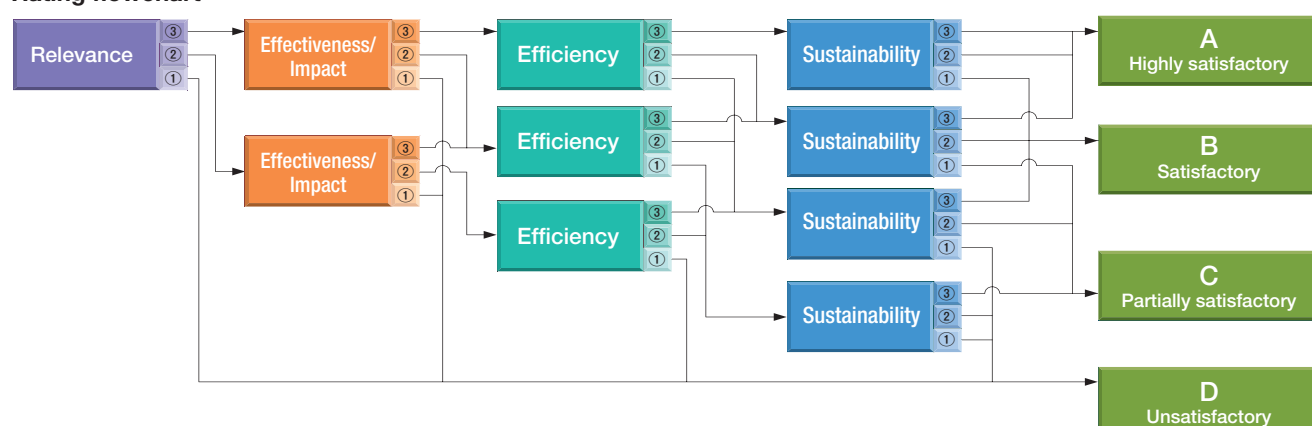
For projects rated "unsatisfactory", please refer to the responses from operational departments to such projects (p. 24 onward).

Rating criteria and overview of main items examined

Rating criteria and main items examined		Reasoning		
		③ (High)	② (Fair)	① (Low)
Relevance	Validity of aid (relevance with development policy of recipient country, Japan's ODA policy, and JICA's aid strategy)	Fully relevant	Partially relevant	Serious problems in consistency
	Relevance with development needs (needs of beneficiary, project area, and community)			
Effectiveness/Impact	Achievement of expected project outcomes in target year (including utilization of facilities and equipment)	Objectives largely achieved, and project generated outcomes (80% or more of plan)	Some objectives achieved, but some outcomes were not generated (between 50% and 80% of plan)	Limited achievement of objectives and project did not generate outcomes (50% or less than plan)
	Status of indirect positive and negative outcomes	Project generated indirect outcomes as assumed / no negative impacts	Some problems with indirect outcomes generated / some negative impacts	Problems with indirect outcomes generated / grave negative impacts
Efficiency	Comparison of planned and actual project inputs, project period and project cost, etc.	Efficient (100% or less than the plan)	Partially inefficient (between 100% and 150% of plan)	Inefficient (exceeding 150% of plan)
Sustainability	Institutional sustainability (e.g., structure / skills / HR of organization)	Sustainability is ensured	Some problems, but prospects of improvement exist	Insufficient
	Financial sustainability (availability of operation and maintenance budget)			

* The criteria and items examined differ by assistance scheme and project.

Rating flowchart



External Evaluation Results for FY 2014

◆ Overall rating

The results of the external evaluations conducted in FY2014 are as listed on p. 12. Evaluations were conducted for 100 projects: 53 ODA Loan projects; 27 Grant Aid projects; and 20 Technical Cooperation projects, most of which were carried out in Southeast Asia, South Asia, Africa and Latin America by region and in sectors such as water resources/disaster management, transportation, health, education and agricultural/ rural development. The overall ratings of the 96 rated projects are: A for 29 projects (30%); B for 36 projects (38%); C for 21 projects (22%); and D for 10 projects (10%). A and B comprise approximately 70% of the total and such projects are sought to have generated the expected results more or less. Projects rated C or D had issues in “verification of the project environment and related projects before implementation” or “appropriate response to problems emerged during the implementation” and so the project effects did not realize.

◆ Criterion-based rating (③: High, ②: Fair, ①: Low)

Relevance: 85 projects were rated “③” (89%) and 11 projects were “②” (11%), which meant many were deemed relevant. Issues emerged in some projects are the problems related to the appropriateness of the project design concerning “analysis of development needs at the time of project planning” or “examination of contents of the project planned and its implementation method”, although they were aligned with Japan’s development policy and the partner country’s policies and development needs.

Effectiveness/ Impact: As 63 projects were rated “③” (66%), 27 projects were “②” (28%), and 6 projects were “①” (6%), most projects were rated as high for effectiveness/ impacts. Meanwhile, projects deemed to have issues are the projects that did not appear to have enough effectiveness considering the outputs after verifying their operation and effectiveness indicators set initially. In such projects, essential conditions for project effectiveness were set as

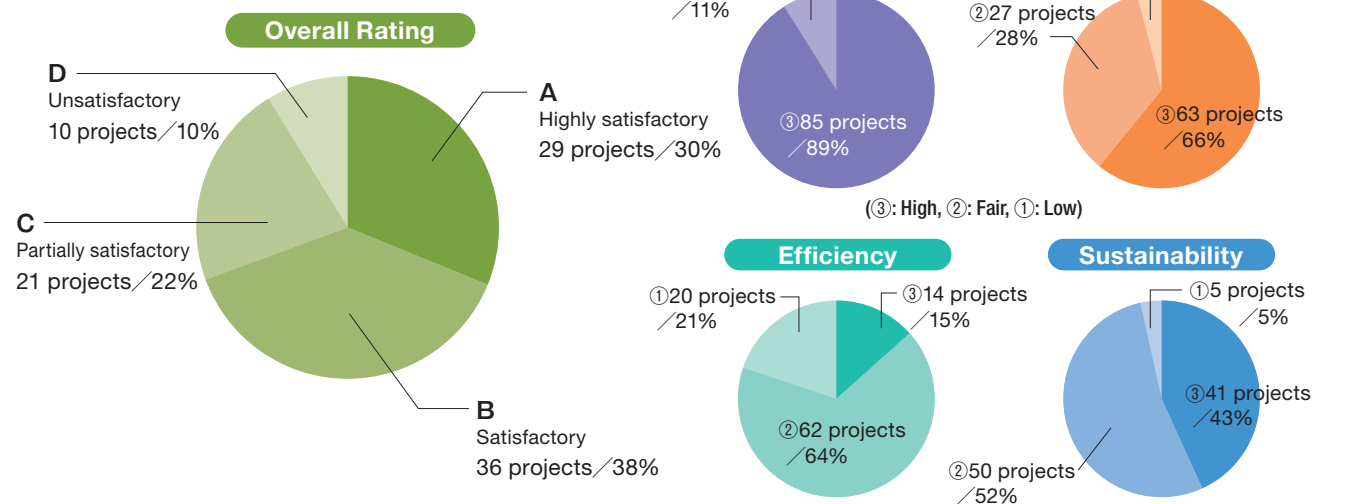
preconditions or external factors which limited the achievement due to delay or suspension of those.

Efficiency: 14 projects were rated “③” (15%), 62 projects were “②” (64%), and 20 projects were “①” (21%). 15 out of 20 projects rated “①” were ODA Loan projects. The main factors causing lower rate were the completion exceeding planned period and/or budget. Those reasons for these ratings are attributed to “increase in cost of construction, equipment and materials” for both Grant Aid and ODA Loan projects, “delays in construction and procurement procedures” for ODA Loan projects, and “the need for additional time and increased cost for additional input because of changes in the plan.”

Sustainability: 41 projects were rated “③” (43%), 50 projects were “②” (52%), and 5 projects were “①” (5%). 4 out of 5 projects rated “①” were Technical Cooperation projects. With regard to sustainability, the organizational structure, technical and financial aspects for operation and management are evaluated. Particularly for technical cooperation projects, the policy and institutional aspects are also verified, as the bases of sustainability. The reasons for low rating were that operation and maintenance systems, policies and institutions, necessary issues for sustaining development effects were not in place. Furthermore, given the fact that 4 out of 5 projects have an issue in financial sustainability, securing financial budget becomes key for sustaining project effects after the completion of project.

JICA utilizes issues identified through ex-post evaluation as lessons learned for generating higher project effects. Ex-post evaluation results will be fed-back to operational departments, and recommendation indicated in the evaluation will be utilized for improving the projects. In addition, lessons learned from evaluation will be also utilized for project formulation in the future as well as monitoring of on-going projects. Furthermore, extracted lessons with their countermeasures are accumulated, in order to utilize them for similar projects and projects facing similar problems, as well as to reflect them in institutional improvement and the basic guidelines for JICA’s cooperation (refer to p. 2 and p. 48).

<Overall Rating for FY2014 External Evaluation and Distribution of 4 Criteria>



* Project which its evaluation was conducted from FY 2014 and the result was confirmed in FY 2015 (as of February 2016). Such results were published as “Evaluation Results in FY 2014” on the JICA website.

List of Ratings for External Evaluations^{*1·2}

The following ratings were given by evaluators^{*3} in external evaluation in FY 2014.

Country	No.	Scheme ^{*4}	Project name	Page ^{*5}	Relevance	Effectiveness ^{*6}	Efficiency	Sustainability	Overall rating
India	1	L	Umiyam Stage II Hydro Power Renovation & Modernization Project		③	②	②	②	C
	2	L	Rural Electrification Project	28	③	③	②	③	A
	3	L	Kurnool-Cuddapah Canal Modernization Project (I) (II)		③	③	②	②	B
	4	L	Disaster Recovery and Management Sector Program Loan ^{*8}		-	-	-	-	-
	5	L	Railway Double Tracking of Cikampek-Cirebon Project (II)		③	③	①	③	B
	6	L	Water Resources Existing Facilities Rehabilitation and Capacity Improvement Project		③	③	②	②	B
	7	L	Muara Karang Gas Power Plant Project		③	③	②	③	A
	8	L	Muara Tawar Gas Fired Power Plant Extension Project		③	③	②	③	A
	9	L	Rehabilitation and Improvement Project of Jakarta Fishing Port	30	③	③	②	②	B
	10	L	Maritime Telecommunication System Development Project (IV)		③	②	②	②	C
	11	L	Project Type Sector Loan for Water Resources Development (II)		②	③	②	②	C
	12	L	Decentralized Irrigation System Improvement Project in Eastern Region of Indonesia		③	②	②	②	C
Kazakhstan	13	L	Astana Water Supply and Sewerage Project		③	③	①	②	C
Sri Lanka	14	L	Colombo City Electricity Distribution Development Project		③	③	①	③	B
	15	L	Pro-Poor Eastern Infrastructure Development Project		③	③	①	③	B
	16	L	Anshan Environmental Improvement Project		③	③	②	③	A
	17	L	Nanning Environmental Improvement Project		③	③	①	③	B
	18	L	Hunan Environmental and Living Conditions Improvement Project		③	③	②	②	B
	19	L	Eco-environmental Construction and General Treatment Project of the Yangtze Upper Reaches in Sichuan Province		③	③	②	③	A
	20	L	Water Supply and Quality Environment Project in Changsha City		③	③	①	③	B
	21	L	Henan Panshitou Reservoir Construction Project		③	③	①	③	B
	22	L	Gansu Afforestation and Vegetation Cover Project		③	③	②	③	A
	23	L	Jiangxi Province Afforestation Project		③	②	②	②	C
	24	L	Hubei Province Afforestation Project		③	②	②	②	C
	25	T	Project for Surveillance and Control of Vaccine-Preventable Diseases		③	②	②	③	B
	26	L	Broadcasting Infrastructure Improvement Project (Qinghai Province)	32	③	③	①	③	B
	27	L	Broadcasting Infrastructure Improvement Project (Yunnan province)		③	③	②	③	A
	28	L	Broadcasting Infrastructure Improvement Project (Anhui province)		③	③	②	③	A
	29	L	Broadcasting Infrastructure Improvement Project (Jilin Province)		③	③	③	③	A
	30	L	Broadcasting Infrastructure Improvement Project (Ningxia Hui Autonomous Region)		③	③	②	③	A
	31	L	Public Health Project (Henan Province)		③	③	②	③	A
	32	L	Public Health Project (Hebei Province)		③	③	①	③	B
	33	L	Public Health Project (Hubei Province)		③	③	②	③	A
	34	L	Inland Higher Education Project (Regional Vitalization, Market Economy Reform Support, and Environmental Conservation) (Inner Mongolia Autonomous Region)		③	③	②	③	A
Nepal	35	G	The Project for the Improvement of the Kathmandu-Bhaktapur Road in Nepal		③	③	②	③	A
Pakistan	36	L	Balochistan Middle Level Education Project		③	②	②	③	B
	37	T	The Project for Establishment of Environmental Monitoring System		③	②	②	②	C
	38	G	The Project for the Improvement of Kararo-Wadh Section of National Highway N-25		③	③	②	②	B
	39	G	The Project for Flood Disaster Mitigation in Camiguin Island		③	③	③	③	A
	40	G	The Project for Improvement of Aurora Memorial Hospital		③	③	③	②	A
	41	T	Small Water District Improvement project		③	③	②	②	B
	42	L	Subic Bay Port Development Project	24	②	①	②	②	D
	43	L	ARMM Social Fund for Peace and Development Project		③	②	②	②	C
	44	L	KAMANAVA Area Flood Control & Drainage System Improvement Project		③	③	①	③	B
	45	L	Malitubog-Maridagao Irrigation Project	24	②	②	①	②	D
	46	L	Rural Water Supply and Sanitation Project (V)	24	②	②	①	②	D
Bhutan	47	G	Construction of Educational Facilities	34	③	②	②	②	C
	48	T	The Project on Strengthening the Capacity of ITSS Education at Hanoi University of Technology (Phase 1) (Phase 2)	36	③	②	③	②	B
	49	L	Small-scale Pro Poor Infrastructure Development Project (II)		③	③	②	②	B
	50	G	The Project for Improvement of Rural Living Condition in Nam Dan District in Nghe An Province		③	③	③	③	A
	51	T	The Project for Building Disaster Resilient Societies in Central Region in Vietnam		③	③	②	③	A
	52	T	The Project for Capacity Development of Participatory Irrigation Management System through Viet Nam Institute for Water Resources Research for Improvement of Agricultural Productivity in Viet Nam		③	②	③	②	B
	53	T	Project for Institutional Capacity Development for Infrastructure Finance in Vietnam		②	②	②	③	C
Viet Nam									
Viet Nam	54	L	Sixth, Eighth, Ninth, and Tenth Poverty Reduction Support Credit ^{*8}		-	-	-	-	-
Malaysia	55	L	Higher Education Loan Fund Project (II)		③	③	②	③	A
	56	L	Social and Economic Development Support Loan ^{*8}		-	-	-	-	-
Myanmar	57	T	Strengthening the Child-Centered Approach (Phase 1) (Phase 2)		③	②	②	②	C
	58	T	The Project on ICT Human Resource Development at ICT Training Institute		③	③	①	③	B
	59	T	Eradication of Opium Poppy Cultivation and Poverty Reduction in Kokang Special Region No.1		③	③	②	②	B
Maldives	60	L	Maldives Tsunami Reconstruction Project		③	③	②	②	B
Mongolia	61	L	Social Sector Support Program (I)(II) ^{*8}		-	-	-	-	-
Solomon Islands	62	G	Project for the Reconstruction of Gizo Hospital		③	③	②	②	B
Tonga	63	G	The Project for Upgrading and Refurbishment of Vaioala Hospital (Phase II)		③	②	③	②	B
Papua New Guinea	64	G	The Project for Construction of Bridges on Bougainville Coastal Trunk Road		③	③	③	②	A
Fiji	65	G	The Project for Construction of Information and Communication Technology Center at the University of the South Pacific		③	③	①	③	B
Micronesia	66	G	The Project for Improvement of Pohnpei International Airport	38	③	③	②	③	A
Antigua and Barbuda	67	G	Project for Construction of Artisanal Fisheries Facilities in Barbuda	25	②	①	②	①	D
Grenada	68	G	Project for Improvement of the Traditional Fishing Community Infrastructure at Gouyave		③	③	②	②	B
(Latin America)	69	T	The Project for Strengthening Nursing Education and In-service Training in El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic		③	③	②	③	A
	70	T	The Project on Capacity Development for Disaster Risk Management in Central America "BOSAI"	40	③	②	②	②	C
Jamaica	71	L	KMA Water Supply and Rehabilitation Project		③	②	②	②	C
Nicaragua	72	G	Project for the Rehabilitation and Equipment of the Scholastic Centers in the North Region of Nicaragua		③	③	②	②	B
	73	G	Project for Development of Potable Water, San Juan River System in Potosí		③	③	③	②	A
Bolivia	74	G	Project for Improvement of Potable Water System in Southeast of the City of Cochabamba	25	②	①	②	③	D
	75	T	The Project for Capacity Development of Road Disaster Prevention and Bridge Management and Maintenance		③	③	①	②	C
Honduras	76	T	Chagas Disease Control Project/Chagas Disease Control Project (Phase 2)		③	③	②	②	B
	77	L	Cairo-Alexandria Transmission System Project		③	③	①	③	B
Egypt	78	G	The Project for Rehabilitation of Monshat El Dahab Regulator on Bahr Yusuf Canal		③	②	③	③	A
Tunisia	79	L	Photovoltaic Rural Electrification and Water Supply Project	26	③	①	②	③	D
	80	L	Water Resource Management Project		③	②	②	②	C
Palestinian Authority	81	T	Improvement in Local Governance System	26	②	②	①	①	D
Jordan	82	G	The Project for Improvement of Airport Security Equipment at Queen Alia International Airport in Jordan		③	②	②	②	C
	83	T	Capacity Development Project for Non-Revenue Water Reduction in Jordan (Phase 1, 2)		③	②	②	②	C
Lebanon	84	L	Coastal Pollution Control and Water Supply Project		③	③	①	②	C
Ethiopia	85	T	The Water Sector Capacity Development Project in Southern Nations, Nationalities and People's Region	26	②	①	②	①	D
Kenya	86	G	The Project for Augmentation of Water Supply System in Kapsabet Town		③	②	②	②	C
	87	G	The Project for Improvement of Ndola and Kitwe City Roads		③	③	②	②	B
Zambia	88	T	The Project for Participatory Village Development in Isolated Areas (PaVIDIA)		③	③	②	①	C
Senegal	89	G	The Project of Supply of Drinking Water in the Region of Tambacounda		③	③	②	②	B
	90	T	Project for Sustainable Rural Development	27	②	②	①	①	D
Tanzania	91	G	The Project for Rural Water Supply in Mwanza and Mara Regions		③	③	③	②	A
	92	G	The Project for the Improvement of Masasi-Mangaka Road		③	③	②	②	B
Burundi	93	T	The Project for Strengthening Capacities of Prince Regent Charles Hospital and Public Health Centers in Bujumbura City for Improvement of Mother and Child Health	42	③	③	②	③	A
	94	G	The Project for Rural Water Supply (Phase VI)		③	③	③	②	A
Benin	95	G	The Project for Construction of Primary Schools in the Republic of Benin (Phase IV)		③	③	②	②	B
Mauritania	96	G	Water Supply Project in the Southern Region in the Islamic Republic of Mauritania	44	③	②	③	②	B
Mozambique	97	G	Construction of Secondary Schools		③	③	③	②	A
Ukraine	98	L	Boryspil State International Airport Development Project		③	③	②	③	A
Turkey	99	L	Bozyuk - Mekece Road Improvement Project		③	③	①	③	B
Former Yugoslav Republic of Macedonia	100	L	Zletovica Basin Water Utilization Improvement Project	27,46	②	①	②	②	D

*1 ③ : High, ② : Fair, ① : Low / A : Highly satisfactory, B : Satisfactory, C : Partially satisfactory, D : Unsatisfactory

*2 External evaluations are for projects costing over 1 billion yen or other projects deemed to provide valuable insight.

*3 List of external evaluator is available on the JICA website.

*4 T : Technical Cooperation, L : ODA Loan, G : Grant Aid

*5 Regarding projects which have page numbers listed, please refer to p.22 and onwards of this report.

*6 Effectiveness includes evaluation of impact.

*7 New provision of ODA loan to China was halted with the six Loan Agreements in December 2007.

*8 Ex-post evaluation of financial assistance projects are conducted on a trial basis and not subject to rating.

Internal Evaluation Results for FY 2014

The overall evaluation of 41 projects indicates that over half the projects delivered the expected result at the time of ex-post evaluation.

◆Evaluation by criterion

Relevance: There is no specific problem observed from all the projects and they were consistent with the policies of the partner countries in meeting their needs. However, project planning in some projects was not necessarily appropriate.

Effectiveness/Impact: Approximately 40% of all projects achieved the expected outcomes, while the remaining 60% or so faced some challenges in achieving results compared to their plan.

Some grant aid projects are observed that their planned effects were hindered due to changes in demand and problems with maintenance and management resulted in the underutilization of equipment and facilities. For some technical cooperation projects, it is noted that (1) the overall goal was not achieved sufficiently at the time of ex-post evaluation and (2) both the project purpose and overall goal were not achieved as planned, although the projects produced certain effects. There were also some cases observed project effects could not be verified by achievement of each objectives at the time of ex-post evaluation whereby the unavailability of data and information on indicators defined at the project planning stage.

Efficiency: More than 20% of the projects were completed within the planned period and cost, while the remaining projects exceeded the period and/or cost upon completion. In case of grant aid projects, delays in facility construction, equipment procurement, customs clearance, and project at the expense of partner countries extended the project beyond the planned period. As for technical cooperation projects, the project amount exceeded the planned amount as more

funds were needed than initially planned to achieve the project purposes and outputs while the project period was extended due to change in the plan or to achieve the project purposes.

Sustainability: Approximately 80% of the projects were identified as having some challenges, of which around 70% were identified as having insufficient sustainability in financial aspects, such as budgetary measures of implementing agencies, followed by institutional aspects represented by lack of assignment of personnel. Other challenge was also observed in some projects in technical aspects, such as succession of technologies transferred and routine inspections and repairs.

◆Future efforts: Focusing on “learning process” through evaluation

The challenges identified in each project are relayed to implementing agencies as concrete recommendations, which are then used to facilitate improvements. Furthermore, a number of lessons learned to formulate and monitor projects are gained, which are also shared within JICA, to be utilized for planning and monitoring of similar projects. Improper goals and indicators are improved through internal trainings and other occasion of JICA. Improper goals and indicators confirmed after the commencement of the project are relayed to the relevant JICA departments for their revision through a proper process.

One of the main features of internal evaluation is that the evaluation is conducted by JICA. Given this feature, JICA will further focus on utilizing lessons learned from the evaluation for the improvement of its projects. To this end, JICA Evaluation Department plays a central role in institutional improvement.



Internal Evaluation – Activities of JICA Balkan Office –

JICA Balkan Office is located in Beograd city, Serbia, and covers six countries in the Western Balkans: Serbia, Montenegro, Bosnia Herzegovina, Kosovo, the Former Yugoslav Republic of Macedonia, and Albania.

Internal evaluation of three projects in Serbia and Albania was conducted by national and Japanese staff in the Balkan Office this time. As a team, the local staff led each process in implementing evaluation (evaluation framework formulation, field survey, report preparation, etc.) and the Japanese staff supported their activities. For the evaluation of the Albanian case, information could be collected properly by utilizing local consultants with necessary confirmation of survey contents by national and Japanese staff in charge, and utilizing the network of a special researcher residing in Albania to Albanian ministries. Support staff was also dispatched from JICA Evaluation Department to compile the result of the field survey.

The Balkan Office was selected as the venue for an introductory training of ex-post evaluation which was organized at overseas office in this year for the first time. The aforementioned national staff also participated in the training and could gain valuable implication for implementing evaluation through exercise training as well as active exchange of views with training lecturers and local staff in other overseas offices.

As mentioned above, proper supervision of the evaluation in the site, well-functioned cooperation system among persons concerned to the evaluation, and timely coordination between the Balkan Office and the Evaluation Department led to smooth implementation of the evaluation.



A training scene at JICA Balkan Office

Column Internal Evaluation: Case Study

Republic of Costa Rica

Reinforcement of the Integral System of Rehabilitation with Community Participation in Brunca Region of Republic of Costa Rica, with focus on Human Security Project: securing sustainability through coordination with other projects

The project contributed to the establishment of a model of community-based inclusive development which includes strengthening of coordination among organizations concerning rehabilitation and increase of employment opportunities of people with disability (PWDs) as well as their empowerment in Brunca Region in the southeastern region of Costa Rica where the poverty rate and proportion of PWDs are high. The concept of the “National Development Plan” (2011-2014) of the country is clearly incorporated in this model.

In addition to promote community participation to the project activities through the implementing organization, the project facilitated the understanding of PWDs and community stakeholders about the inclusive development model as well as promoted their empowerment and social participation by offering a training opportunity for PWDs which JICA organized

under other cooperation schemes. As a result, the project contributed to increase of living

function of PWDs (self-care in daily life, home life, human relationship, education and employment, community life, communication, exercise and movement).

One of the lessons learned from the project is that it is effective to enhance sustainability of project effects in a strategic manner by utilizing a training program of relevant areas under other cooperation schemes.

On the other hand, while a form was developed in the project to share among stakeholders about the status of PWDs based on ICF* which was adopted at the World Health Assembly in 2001, care of PWDs in line with the classification was not common in Costa Rica and the form was not utilized. This implies that JICA and implementing agencies must fully examine the effectiveness and applicability to partner countries country at the stage of project formulation when introducing a new form.

*The international classification of functioning, disability and health

Hearing with a counterpart



Message from JICA Overseas Office: Project on Participatory Forest Management in Nicaragua (Technical Cooperation)

The project was implemented with the aim to develop forest management capacity of community residents and improve resident support system in coordination of the Institute of National Forestry and municipal officials for measures against rapid deforestation as well as disaster management policy through recovery of soil conservation function by forest management.

According to the evaluation result, it was confirmed that (1) effects and sustainability was achieved by understanding structure and capacity of implementing agencies and clarifying the target of concentrated technology transfer through efforts to establish a dedicated unit and assign dedicated staff, and (2) dissemination to other villages is highly plausible as a result of designing and verifying feasible activities of farmers at low cost, and making concrete efforts to enhance resident support system.

A message from JICA Nicaragua Office

Voices heard from counterparts during the internal evaluation were indeed reflecting to the true value of the project. Success

and failure in achieving outcomes or its points to reflect have been appeared in some way after three years from the project completion. These points made us realize and strongly consider about the necessity of utilizing lessons learned for project formulation in general, particularly for planning, implementation, management and monitoring of similar projects in an appropriate manner as overseas office. Moreover, in the internal evaluation implemented by overseas office, we reconfirmed the project effects directly with counterparts and it could be a good opportunity to strongly encourage counterparts to extend and develop effective outcomes of the project by their own methodology.

Meanwhile, abilities to consider both qualitative and quantitative aspects as well as objective judgement of project effects are needed in implementing evaluation. For us, it took time, human resources, and many efforts to implement proper internal evaluation. We realized that establishing effective and efficient evaluation methodology and its implementation system would be one of the important challenges for JICA in future.

Analyses and learnings from Ex-post Evaluation Results

JICA analyzed the cross-sectional results of ex-post evaluations (cross-sectional analysis) and examined some of projects in further details to analyze their problems and extract more meaningful lessons learned (detailed analysis). JICA also assessed its evaluation methods for improvements (examination of evaluation methods) on an experimental basis.

Among these studies, the results of two detailed analyses to extract useful lessons are described below in “Identification of Useful Lessons Learned for the Municipal Water Supply Sector in the Philippines: Effective Utilization of Knowledge Accumulated within JICA” (pp. 15-17) and “A Study for the Development and Institutionalization of Model Approaches: Project for Participatory Village Development in Isolated Areas in Zambia” (pp. 18-19). They are followed by “Cost Bearing of Recipient Country Governments and Enhancement of Development Effectiveness” (p. 20), which summarizes the results of the cross-sectional analysis of multiple ex-post evaluations to examine issues common to them.

Moreover, the results of the examination of evaluation methods are stated below in “An Examination of Evaluation Methods for Development Policy Operations: For Enhancing Evaluability” (p. 21), which outlines the evaluation results of experimental financial support and suggests some issues, and in “An Experimental Cost-effectiveness Analysis: Strengthening of Activities of Survey and Control for Chagas Disease in Honduras” (pp. 22-23), which explains how to analyze the cost-effectiveness of technical cooperation projects in their ex-post evaluations.



Identification of Useful Lessons Learned for the Rural Water Supply Sector in the Philippines: Effective Utilization of Knowledge Accumulated within JICA

There is a growing demand, inside JICA, for enhancing the quality of lessons learned, or useful lessons, to further improve operations and systems. Meaningful lessons should satisfy the following three conditions: (i) they should be able to explain what factors cause problems or contribute to best practices and when and how the factors occur; (ii) they should be able to identify the conditions in which they can be used; and (iii) they should be able to suggest practical and specific measures that can be taken for similar projects to achieve success or avoid risks.

In FY2014, JICA's Evaluation Department staff and senior advisor specialized in the water supply and sanitation sector analyzed the lessons learned from two rural water supply projects in the Philippines, along with policy and institutional issues, based on the results of the ex-post evaluations.

Among these two projects, Rural Water Supply and Sanitation Project (ODA Loan) saw a shift in the development needs from deep hand pump wells (level-1 water supply facilities; refer to p.16) to piped water supply facilities (level-2/3 facilities) during its implementation period of over a decade. As a result, the number of deep hand pump wells installed by the project was reduced. This was considered as one of the major factors that prevented the project from achieving its targets as planned. The other project, The Project for Rural Water Supply (Technical Cooperation), assisted small water districts with weak financial bases by developing water supply facilities (level-3 facilities) which can increase profits from water billing and providing technical assistance for financial improvements (including support for the development of a management improvement plan). As a result of the project, the water districts which received both facility development support and technical assistance simultaneously could improve their services and financial performance. At the time of ex-post evaluation, however, the project was found to have a problem in disseminating its outcomes to other water districts since the executing agency had ceased technical assistance to small water districts.

The external evaluator of Rural Water Supply and Sanitation Project (Phase 5) extracted a lesson that “it is necessary to modify the project design appropriately to respond to the change of needs during the project implementation period.” In light of the global trends in international cooperation in the rural water supply sector

after the mid-2000s, JICA officers also agreed that this lesson can be applied to other countries and regions. In addition, JICA officers identified other lessons as follows.

- The level of rural water supply services changes with the improvement of economic level and increasing population density. Moreover, there is an increasing demand for water supply facilities with better service standard, even in developing countries. The appropriate service level should be carefully examined based on the method such as a close analysis of stakeholders at the time of project formulation. It is also effective to set the project scope to include piped water supply facilities from the planning stage or to adopt a flexible scheme, such as sector loans which make it possible to modify the type and number of facilities to be installed during implementation.

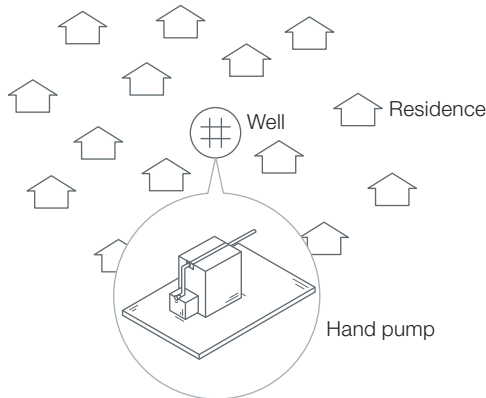
Further analysis was added as follows.

- Project sites should be selected not only based on macro indicators, such as provincial water supply rates. Target villages and locations should also be selected based on an investigation of various matters, including the existing water sources being used by residents in the target areas and the availability of alternative water sources, as well as a careful analysis of local needs.
- Many projects in the water and sanitation sector are managed by local governments and therefore likely to be affected by decentralization policies. For this reason, when a project is launched, the national government often requests local governments to bear the costs and other burdens incurred by the project. In the case of the Provincial Cities Water Supply Project, the central and local governments shared the project cost equally. This discouraged local governments to participate in the project, forming one of the main reasons why the number of facilities installed by the project fell far short of the planned target. The costs and burdens borne by local governments should be examined with great care since the burden-bearing capacity of local governments is definitely a major risk factor for the achievement of expected results.

◆ Level of water supply facilities

[Level 1]

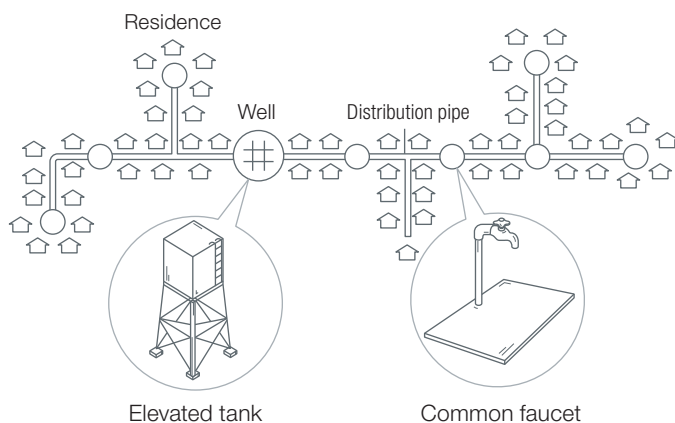
~ Level-I ~



Point water source (use of hand pump, shallow well, rainwater, etc.)

[Level 2]

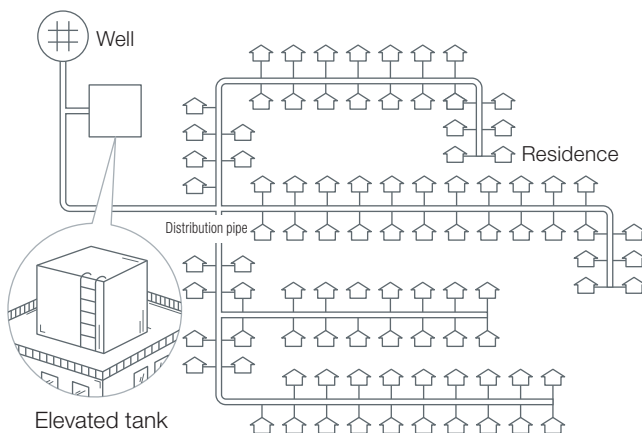
~ Level-II ~



Water supply through the public faucet pipe
(well water, spring water, etc. are water sources)

[Level 3]

~ Level-III ~



Water supply through connecting pipe of each residence

The Project for Rural Water Supply was found to have enabled many water districts to expand their customer bases and improve their financial situation by providing grant aid to improve necessary facilities. In light of these results, the external evaluator extracted a lesson to make better use of infrastructure development as an opportunity to improve finances. Technical cooperation projects should also consider combining infrastructure development when there is a possibility of utilizing additional funds. With regard to this matter, JICA officers added the following comments.

●The weak financial bases of small water districts can be reconstructed and facilitated by combining the following three activities: (i) developing a management improvement plan; (ii) providing appropriate technical assistance; and (iii) providing grants (or creating a mechanism to access to concessional loans) to invest in infrastructure that can increase profits from water billing. In order to ensure the effectiveness of these activities, it is important to examine whether there is any bottleneck in relevant policies and systems and then advise and encourage not only executing agencies but also their supervising ministries and the financial ministry so as to develop policies and systems to support sustainable improvements during and after the project. For making such dialogues effective, data such as improved financial indicators and concrete examples of improvements in water districts should be collected to provide evidence.



Deep hand pump well (level-1 water supply facilities)
installed by Provincial Cities Water Supply Project (Phase 5)
Calintaan, Occidental Mindoro
(Taken from the ex-post evaluation report)

●As seen in the experiences and policies of other developing and developed countries including Japan, the water sector is generally capital-intensive, and many small- and medium-sized water supply corporations suffer from the shortage of financial and human resources. Therefore, there is a need to formulate plans on water supply infrastructure, finance and human resource development in accordance with the scale of each corporation. This may require not only an approach of selecting small water districts with weak financial bases and assisting their financial problems individually. It is also necessary to examine an approach that support reform/restructuring of the sector in view of scale of economics; for example by merging water authorities, expanding water district areas, or promoting privatization for operation and maintenance.

Through the experimental process mentioned above, it was confirmed that an additional analysis of ex-post evaluation results conducted by JICA staff and experts who are familiar with JICA's operation and processes, approaches taken for other projects in relevant sectors, sectorial/country/regional issues, and JICA's past efforts and experiences can extract more meaningful lessons. The Evaluation Department will continue to facilitate the utilization of internal human resources to identify effective lessons to improve project operations.



Facilities installed in Lobo Water District by Small Water Districts Improvement Project
They are maintained in a good condition.



To give feedback to the recipient government NEDA-JICA Joint Evaluation Workshop

On January 18, 2016, the National Economic Development Agency (NEDA) and JICA jointly held a evaluation workshop in Manila. In addition to the participants from NEDA, the window agency of the Philippines in charge of ODA, approximately 40 personnel from each ministry and executing agency participated in the workshop from the Philippines side. In the morning session, the participants exchanged and shared their views about lessons learned from ex-post evaluation of projects in the Philippines (including lessons learned from the Rural Water Supply Projects as referred in pp.15-17), the statistical analysis of the ex-post evaluation results in the Philippines (the figure below), the impact evaluation report of "ARMM Social Fund for Peace and Development Project" (ODA Loans/refer to p.57). A training session including group work was organized in the afternoon for personnel from each ministry and executing agency in order to facilitate understanding of operations evaluations.

The participants made various comments to the analysis of ex-post evaluation of projects in Philippines which include "it was beneficial because it is difficult for the stakeholders in the Philippines alone to analyze the results of past projects. I would like to utilize it within the government" and "I could reconfirm the importance of the coordination with several organizations and the necessity of capacity enhancement of local authorities from the Rural Water Supply Projects." Comments were also made on impact evaluation; "I could understand the importance of considering residents outside

the decision making process or those who did not benefit from the project. People who provide administrative service have an influence on the affectivity of the project."

NEDA plays an important role in formulating and implementing the national evaluation policy of the Philippines and recognizes the importance of impact evaluation. Thus, sharing JICA's operations evaluation results in the form of joint workshop became a very beneficial opportunity for the participants of the Philippines side as they had a great deal of response to such opportunity.

Statistical analysis of ex-post evaluation results in the Philippines (an example)



*Analysis like above was carried out from various aspects and JICA and the Philippines side exchanged their Views in the workshop.

Study for Development and Integration of a Model – the Project for Participatory Village Development in Isolated Areas (PaViDIA) –

In technical cooperation, the approach generally taken is one where a project implements and verifies institutional and technical activities to promote social and economic improvement in a pilot area for their future application across the country. That is, the project develops a model and extends it to broader areas. This developed model is supposed to be extended or integrated upon approval of the central government and other authority. However, this integration largely depends on the intention of the recipient government, and further it needs to secure budget and

human resource. Thus, it is not readily realized in all projects.

Given the circumstances, analysis was made on positive and negative factors in “integration of a model” are made in order to learn lessons for planning and implementation of similar projects which aim at the development and extension of a model. Among projects for ex-post evaluation in FY 2014, the case of the Project for Participatory Village Development in Isolated Areas (PaViDIA) in Zambia was selected which directed to develop and extend a village development model.

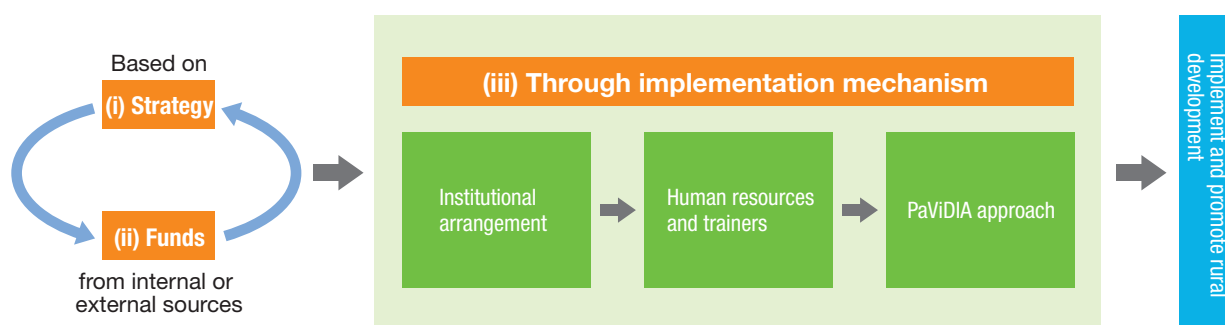
◆ Participatory Village Development in Isolated Area (PaViDIA) model

The Project for Participatory Village Development in Isolated Areas (PaViDIA) in Zambia (hereafter, “the project”) was implemented throughout seven years in two phases. The project sought to establish a participatory village development model in the phase 1 (2002-2007) and apply the model in other areas in the phase 2 (2007-2009). The model developed in the project is called Participatory Village Development in Isolated Areas model (PaViDIA

model) which incorporated three components for promotion of rural development: (i) strategy, (ii) Funds, and (iii) Implementation mechanism. The implementation mechanism consists of (i) institutional arrangement for the project activities, (ii) human resources and trainers for implementation, and (iii) concrete rural development approach. These are necessary for dissemination of PaViDIA across the country (refer to Figure 1).

*The approach developed in the project is taken through utilization of the small-scaled projects namely Micro Project (MP) with participation of whole village members under the supervision of extension officers of the Ministry of Agriculture. This approach intends to strengthen the capacity for solving issues and ultimately support self-sustaining development of villages.

Figure 1 PaViDIA model



◆ Positive factors to “integration of a model”

In the ex-post evaluation, it is confirmed that PaViDIA model has been recognized as one of the participatory agriculture extension approaches of the Ministry of Agriculture.

This derives from the following factors: (1) entrenched activities of the PaViDIA model under long-term support, and (2) recognition of effectiveness of the PaViDIA model through the involvement of stakeholders and implementation of a social survey.

Regarding the factor (1), the project planned and implemented relatively a long-term (7 years) support based on rural development approach established in a preceding grass roots grant aid called “Participatory Approach to Sustainable Village Development” (1999). This resulted in contributing to the advancement of the agricultural and rural development approach. In addition, prior coordination among stakeholders about concrete policy of the project activities, utilization of external funds and existing agriculture extension system, etc. throughout two data collection surveys conducted prior to the project was considered to have encouraged initiatives of the Ministry of Agriculture for a long-term vision. Furthermore, the project plan was reviewed and sophisticated in details in accordance

with the project progress, and the activities were gradually shifted to be initiated by the Ministry of Agriculture. These results effectively functioned to implement the project and establish the activities. In cooperation with the succeeding project: “the Rural Extension Service Capacity Advancement Project” (2009-2014), the project outcomes was succeeded and the approach was further improved. A series of these project succession and improvement is considered to boost the establishment of the model activities.

As for the recognition of effectiveness of the model as described in (2), dissemination of the activities in other areas was planned at earlier stage, which led to the gradual development of activities many stakeholders involved. Moreover, the effectiveness of the model was studied, the results of which were spread proactively to stakeholders inside and outside the project through newsletters and seminars. These movements of sharing and visualizing project outcomes are considered to contribute to the recognition of effectiveness of the model.

With these two factors, the PaViDIA model was established as one of the agriculture extension approach of the Ministry of Agriculture.



A participatory meeting (May 2011)



One of the villages where initial MP activity was ceased but resumed by purchasing village chicken anew (Shambole village in Kafue district of Lusaka Province)

◆ Negative factors to “integration of a model”

In policy terms, the National Agricultural Policy the contents of which will be related to the direction of model extension was not approved at the time of the ex-post evaluation. As a result, it became clear that a blueprint of promoting comprehensive agricultural extension was not existed. Financially speaking, although the project budgets up until 2015 were secured from the external resources, the activity budget thereafter is not yet secured as it is difficult

to allocate such budget from the Ministry of Agriculture. While technical transfer on the procedures for securing external funds was implemented with the aim to utilize other donor’s resources, the actual effort to acquire such external fund was not made. The importance was indicated to seek a possibility of establishing model at the planning and implementation stage, including internal but also external funding.

An Analysis on “Scope of Undertakings by Recipient Governments” and Development Results

◆ Issues Faced on the Scope of Undertakings by Recipient Governments

[Cases where development effects were affected]

Some projects underachieved against the expected effects (Effectiveness) on beneficiaries and target communities due to lack of confirmation of the feasibility, monitoring progress of the activities, or not including required activities within the scope of undertakings by the partner governments. In these projects, the relevance was also evaluated “low” because issues were observed in the project design and the appropriateness of implementation measures.

In “Project for Improvement of Potable Water System in Southeast of the City of Cochabamba” in Bolivia (Grant Aid), expansion of water source and installation of intake water pipes by the Bolivian side were preconditions set to start the project activities. The project had started with the Bolivia’s promise to commence preparatory studies and construct the above items. However, due to objections from local residents and related local governments, the expansion of the water source did not realize, and the installation of intake water pipes was delayed. As a result, the amount of water provided by the project was limited. This left a lesson that it is essential to analyze the feasibility of undertakings with consideration to socio-political risks and to monitor those progress during implementation.

“The Zletovica Basin Water Utilization Improvement Project” in Macedonia (ODA Yen Loan; refer to p. 46) aimed to ensure stable service of water supply for both the public and industry by developing a water treatment plant, raw water pipelines, and other necessary facilities. As this project did not include the installment of pipelines to transmit raw water from the dam to the water intake within the project scope, the quality of water could not be stabilized and the project could not start water supply services to municipalities having large populations. The evaluation result indicates that for all components essential to achieve the expected results for the project, close coordination is required to define the demarcation of scope between JICA and the partner government before starting the project.

[Cases where issues were observed in sustainability]

The evaluation judgment for sustainability was affected where the recipient governments did not comply with their undertakings to allocate necessary human resources or to setup organizations for operation and maintenance.

In “The Project on Capacity Development for Disaster Risk Management in Central America ‘BOSAI’ ” (Technical Cooperation), implemented as a regional project targeted six Central American countries, the sustainability of the technical levels for disaster management and its improvement differed among the target countries depending on the retention rate of project staff. The sustainability of the project overall was rated “fair”: three countries with high retention rates (i.e., El Salvador, Costa Rica, and Nicaragua) were rated “high”; and other three countries (i.e., Guatemala, Honduras, and Panama) were rated “low”.

In the “Project for Improvement of the Traditional Fishing Community Infrastructure at Gouyave” in Grenada (Grant Aid), the fishermen’s union was not established and the plan for the union to sell fuels distributed from petroleum companies did not realize, and therefore the expected profits to cover the operating expenses of relevant fishery facilities could not be earned. As a result, the sustainability of the project was rated as “partially satisfactory”.

[Cases where the efforts of development effects were delayed]

Some projects were assessed as “low” in efficiency because they had taken a long time to emerge effects due to delays in complying with the undertakings for the partner countries.

In the “Project for Reconstruction of Gizo Hospital” in the Solomon Islands (Grant Aid), the Government of the Solomon Islands was responsible for the procurement of furniture in the hospital, and it was also planning to construct additional facilities, such as a kitchen, in cooperation with other donor agencies. However, these activities were significantly delayed, which prevented the hospital from commencing operations until long after the construction was completed. At the ex-post evaluation, the definition for completion of the project period was readjusted to the time when effects actualized after the fulfillment of the undertakings by the recipient government, and therefore the efficiency of the project was assessed as “low”.

◆ Good Practices to Boost Ownership

The projects where the recipient governments properly fulfilled their responsibilities could generate and sustain the development effects. The “Project for the Construction of the University of the South Pacific Information and Communication Technology Center” in Fiji (Grant Aid) had started after confirming the capacity level of operational management for the implementation agency through past technical assistance. Based on this, the project developed information & communication technology and distance learning facilities, to create a better research and development environment and strengthen human resource development functions. The Fijian side precisely fulfilled all of their responsibilities, such as constructing facilities and placing tax exemption, and the project was evaluated to have generated highly effective results for the South Pacific region as a whole.

The lesson learned from this project is that by examining the optimum scale, effective scope, and appropriate means of implementation based on past cooperation experiences, the scope of the undertakings for the partner government can be set properly and increase sustainability. This project showed an example that development results can be generated under the high ownership of the recipient country.

◆ Efforts to Achieve Better Development Results and Ensure Sustainability

In order to resolve the problems above, JICA has been trying to improve project preparation, such as thorough examination of the project scope to include all essential components to achieve development results, to cover appropriate scope under JICA’s assistance, to assess the feasibility of the scope of undertakings by the partner government including operation and maintenance systems. Moreover, JICA has been making efforts to establish a mechanism to ensure monitoring during and after the project implementation.

Furthermore, JICA has modified its ex-post evaluation framework to deepen its analysis for the progress of activities undertaken by the recipient government (e.g., the establishment of operation and maintenance systems and the development of relevant facilities) as well as how the project design was appropriately revised upon necessity. JICA will continue to accumulate lessons extracted through ex-post evaluations for feedback to improve project performance by strengthening monitoring and refining the rating methodology.

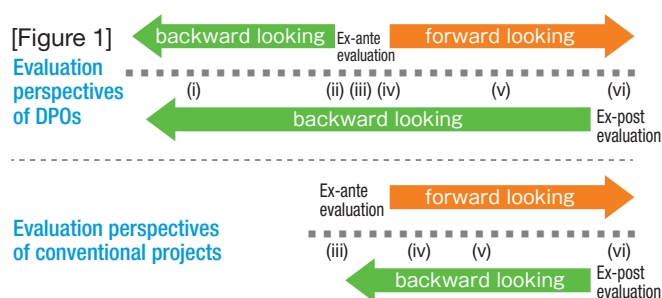
An Examination of Evaluation Methods for Development Policy Operations: For Enhancing Evaluability

What is a Development Policy Operation? (DPO: Development Policy Operation)

Development Policy Operation (DPO) is a modality which combines general budget support* from donors to developing countries and policy and institutional reforms by their governments such as strengthen their fiscal management and improve business environment. This scheme can facilitate reforms of governments of developing countries through policy dialogues. Moreover, by providing financial assistance to achieve the reforms, donors can go beyond the limits of conventional development projects to achieve higher policy and institutional targets while respecting the ownership of developing countries. Furthermore, this modality can facilitate policy dialogues to support reforms under a long-term framework. DPOs are often implemented in collaboration with international development financial institutions such as the World Bank.

Evaluation of Development Policy Operations

Figure 1 below shows the time flow of a DPO in comparison with that of a conventional project.



(i) policy dialogue between the recipient country and donors, (ii) policy reform and goal setting for the next phase, (iii) ex-ante evaluation, (iv) disbursement, (v) monitoring, (vi) ex-post evaluation

In the case of DPO, financial assistance is provided to the recipient government after an assessment of the progress (and future potential) of policy dialogues/reforms (refer to (i) and (ii) in Figure 1), among others, at the ex-ante evaluation. Therefore, it has a backward-looking perspective at the time of ex-ante evaluation (iii). Moreover, because DPOs often involve macro-level reforms, such as revision of laws and regulations, the causal chain of DPOs leading to social outcomes tends to be more complex than that of conventional financial assistance, and the contribution of donors through policy dialogues is not clear in general. Another feature is that DPOs often generate outcomes through collaboration with other development projects including technical cooperation and other financial assistance.

An example of the ex-post evaluation of DPOs Social Sector Support Program (Phase 1 & 2) in Mongolia

In FY2014, JICA performed the ex-post evaluation of a DPO: the Social Sector Support Program (Phase 1 & 2) in Mongolia. The case study below summarizes the evaluation results and problems identified.

Case Social Sector Support Program (I) (II)

Evaluator: Naomi Maruyama, OPMAC Corporation

[Overview of evaluation result]

The objective of this program was to establish a mechanism for ensuring and strengthening basic social services for the poor while restraining public expenditures, of which social welfare expenditures had been inefficiently allocated, by targeting the poor as beneficiaries.

All the Policy Measures were completed and the verification process and appraisal by JICA were carried out properly. Therefore, effectiveness of the Program is high. As far as impact of the program is concerned, however, there has not necessarily been as much progress as expected in some reform areas such as macro-economy, social welfare, and education. Furthermore, it is necessary to observe whether or not the desired effects are to be produced amid concerns that the fiscal situation is deteriorating.

[Issues in evaluation]

The evaluator reorganized the outcome (to protect the poor during the financial crisis and to improve the targeting of social assistance) and the impact (improvement of public expenditure management, and the enhancement of social development in Mongolia) as follows, with consideration for the actual scope of assistance in the program and the time frame needed for the effects to emerge.

Evaluation Framework	Indicators
Outcome	Achievement of policy measures
Impact	Safeguard for the poor, fiscal management, social development, etc.

However, regarding many outcome indicators set at ex-ante evaluation, there was the issue that the completion of the policy reform did not lead to the emergence of effects. Therefore, the evaluator evaluated these as impact indicators (e.g. "Percentage of children suffering malnutrition" was an outcome indicator in ex-ante evaluation but changed to impact indicator in ex-post evaluation).

For enhancing the evaluability of DPOs (Future challenges for JICA)

[Phase from the launch of policy dialogues to the ex-ante evaluation] (Refer to (i) to (iv) in Figure 1): Establish a clear logical chain from the developing country's policy reforms to outcomes/impacts. Moreover, identify and document the value that can be added by donors through policy dialogues (e.g., policy advice).

[Phase from the ex-ante evaluation to the ex-post evaluation] (Refer to (v) in Figure 1): Perform active monitoring in order to ensure that policy reforms can generate outcomes/impacts. Moreover, identify and document the value added by donors through the monitoring.

[Phase after the ex-post evaluation] (Refer to (vi) in Figure 1): Review the previously established logical chain from policy reforms to outcomes/impacts and modify the evaluation framework (indicators, target values and deadlines for outcomes/impacts) as required. When DPO is designed to generate outcomes/impacts through collaboration with other development projects, it is desirable to evaluate the DPO together with these collaborative projects.

* General budget support is an aid modality which provides funding to the general budget account of the governments of developing countries without specifying how the funding should be spent.

Cost-Effectiveness Analysis (CEA)

-Case Study on Technical Cooperation Project “Chagas Disease*1 Control Project”-

◆ [Objective]

This analysis aims to extract lessons on the implementation of cost-effectiveness analysis (CEA) by attempting to conduct CEA on Technical Cooperation Project “Chagas Disease Control Project” in order to facilitate discussion on the improvement of efficiency analysis in JICA's ex-post evaluation.

◆ [Implementation of cost-effectiveness analysis]

Cost-effectiveness analysis (CEA) calculates the amount of cost per unit of effect by comparing an effect achieved and cost incurred by an intervention, rather than just comparing planned and actual cost as JICA's conventional ex-post evaluation does.

In order to implement CEA, it is necessary to (i) measure an impact of an intervention, (ii) calculate cost of the intervention, and (iii) calculate cost-effectiveness ratio (CER) and compare it with results of CEA on other interventions. The following sections show the result of each step and limitations which this CEA analysis faces.

(i) Impact analysis

Impact analysis basically requires to compare an outcome of treatment group benefitted by an intervention and that of comparison group not benefitted by the intervention. This analysis tried to compare the departments targeted by the project and those not targeted by the project in order to measure the impact of the project.

However, measures against Chagas disease in Honduras has been implemented not only by JICA but also by other donors throughout Honduras, and taking that into account it was impossible to rigorously define the treatment departments and the comparison departments. In addition, due to the lack of detailed data, it was also impossible to employ other evaluation methods. Thus, under the condition given to this analysis, rigorous impact analysis was infeasible.

(ii) Calculation of cost

Cost in CEA consists of not only accounting cost of a project but all of incremental cost spent on the implementation of a project. In this case, cost for Japanese

volunteers, project office, and Honduran health volunteers (opportunity cost) was not included in the project budget and to be calculated as cost in CEA.

Although it was impossible to retrospectively collect data on the cost of Japanese volunteers and project office at the time of ex-post evaluation, the cost for Honduran health volunteers was estimated based on available information.

(iii) Calculation of cost-effectiveness ratio and comparative analysis

Although it was possible to estimate the cost, rigorous impact analysis was infeasible, and thus it was impossible to calculate cost-effectiveness ratio. However, in order to have an idea on the cost effectiveness of this project, this analysis attempted to compare CEA of this project with that of a similar intervention implemented by the government of Argentina (see “Comparative analysis of CER” on the next page).

◆ [Discussion]

As discussed above, under the given condition, it was difficult to conduct CEA in an ideal way due to several limitations. Based on this result, the following points can be pointed out as lessons learned from this trial.



A triatomine bug (vector of Chagas Disease) submitted by a resident

Clear objective of the evaluation

It is essential to have a clear objective of the evaluation (what should be revealed by the evaluation and how the result will be utilized) because methods, data, and interventions to be compared vary depending on the objective of the evaluation. Furthermore, it is unrealistic to conduct CEA for all projects subject to ex-post evaluation since CEA requires more input (human resource and time) than conventional ex-post evaluation does. Therefore, CEA should be conducted selectively on strategically important cases (e.g. projects with large cost or projects which have several competitive approaches) as an additional analysis to ex-post evaluation.

Examining and ensuring evaluability

After setting a clear objective, it is necessary to consider feasibility of evaluation (evaluability) under a given condition (see Table for the checklist). When CEA is conducted at the time of ex-post evaluation, evaluability should be carefully considered through examining if a given condition satisfies minimum requirements.

However, in reality, it seems very rare that evaluability is ensured when CEA is conducted retrospectively at the time of ex-post evaluation. Thus, it is important to take necessary measures from the onset of a project (e.g. clarification of targeting and collection of data on outcome and cost) in order to ensure evaluability.

[Table] Checklist on evaluability of CEA

	Element	Yes / No
[Objective]	Whether the objective of evaluation and the utilization of evaluation result are clear.	
	Whether CEA is an appropriate method to achieve the objective.	
[Impact analysis]	Whether comparison groups which can be appropriate counterfactual exist.	
	Whether data on outcome of both treatment and comparison group are available.	
	Whether baseline data are available.	
	Whether data on characteristics of treatment and comparison group are available (if necessary).	
[Calculation of cost]	Whether data on cost which don't appear on the budget are available.	
	Whether it is possible to adjust implementation year and exchange rate.	
[Comparative analysis]	Whether an appropriate intervention against which the CER is compared exists.	

* The list above shows minimum requirements. The list should be modified case by case.

Comparative analysis of CER

The CER of similar intervention by the government of Argentina is 99.6 US\$ per averted case. Considering the cost of JICA project (5-6 million US\$), 50,000-60,000 averted cases are required to have the same level of CER as Argentina case. In 6 departments where data are available among 8 target departments by JICA project, the number of patients of Chagas disease decreased by 46,000 during the project period (2003-2011). If we assume this reduction could be solely attributable to the

project, the CER of this project would be equivalent to that of similar intervention by Argentina government.

However, taking into account reduction of risk of Chagas disease due to interventions of other donor and general improvement of living standard, it is not reasonable to attribute the reduction of Chagas disease solely to the project, and thus the analysis in this Box should be interpreted as a thought experiment.

*1 Chagas Disease: a widespread infectious disease in the Americas transmitted by a triatomine bug. Infection can lead to sudden death caused by cardiac, digestive, and neurological disorder, and the disease caused more than 7,500 deaths in the Americas as of 2012. It is called the "illness of the poor" since the vector species tend to live in the housing of the poor, and the poor are the most likely to be affected by the disease.

Measures for Projects Cited as Having Issues

Based on recommendations and lessons learned, JICA has been taking the following measures for the projects rated as unsatisfactory.

The Philippines

Subic Bay Port Development Project

Overview of evaluation results and issues observed

The objective of the project was to increase cargo handling capacity for the Subic Port, and facilitate and promote distribution in Central Luzon including the Subic area by constructing a new container terminal and rehabilitating existing port facilities in the Subic area, which is located in north-west of Metro Manila. Thereby it aimed to contribute to the promotion of regional economic development and to the alleviation of congestion at Manila Port.

According to the evaluation result, the actual cargo handling volume remained at approximately 10% of the projected volume. As a result, the contribution to the development of the regional economy, such as the increase of employment, was limited at the stage of ex-post evaluation. This was caused by several factors; the forecast on the handling volume of container cargo was too large and the examination of a comprehensive plan for effective operation at the three ports (Manila, Batangas, and Subic Ports) was not adequate.

Recommendations and lessons learned

It is recommended in the evaluation that the executing agency continue to implement the Action Plan for promoting effective utilization of container terminals which was formulated under JICA's technical support and survey, while JICA will monitor its implementation status. Regarding lessons learned from the project, the necessities of carefully analyzing and studying policies and plans which relate to the project, and preparing plans and strategies by the executing agency to promote demand were recommended.

Measures to be taken by JICA department in charge of the project

The executing agency has been making their efforts not only to implement the Action Plan but also to boost the utilization of container terminals including the expansion of on-line services. Given such circumstances, cargo handling volume over the past two years has increased (approximately 14% more than the expected volume in November 2015). JICA continues to monitor these activities.

The Philippines

Malitubog-Maridagao Irrigation Project

Overview of evaluation results and issues observed

The project was implemented with an objective to increase and stabilize agricultural production in the central region of Mindanao Island through the construction of irrigation facilities, thereby contributing to the alleviation of poverty by improving the incomes of local farmers. Although continuous improvement was observed in the target area such as the increase in irrigated and planted area as the project effects, all project activities were suspended for about six years due to the deterioration of the public security. Even after the resumption of the project, it took additional 11 years for the Philippines Government to finish the activities funded by their own budgets due to the lack of funds and delay in budget allocation. The actual project period and cost exceeded the plan and the efficiency of the project was rated as low. It was also pointed out that careful project planning and measures with enough consideration for the security situation were not incorporated. Regarding the sustainability of the project, the collection rate of irrigation service fee which was necessary to operate and maintain the irrigation facilities had not reached the expected figure set by the Government. Therefore, concerns in terms of financial aspect were observed.

Recommendations and lessons learned

In order to improve the financial situation concerning the operation and the maintenance of the irrigation facilities, continuous efforts to strengthen organizational capacities of Irrigators' Associations and to improve the collection of irrigation service fee were recommended. As lessons learned from the project, it was suggested that the project scale should be determined by understanding and analyzing the situation beforehand when dealing with projects that are implemented in insecure areas. It was also recommended to monitor such situations continuously and to examine the security measures to be taken promptly when a sign of deterioration is observed.

Measures to be taken by JICA department in charge of the project

In recent years, the executing agency introduced an incentive system for the irrigation service fee collection to Irrigators' Associations. As this activity is expected to lead to the improvement of the fee collection rate in the whole project site, JICA will keep monitoring these activities. In addition, JICA has been supporting the improvement of farmers' management capacity in cooperation with the Ministry of Agriculture of the Philippines through supervising rice cropping techniques and lending agricultural equipment with free interest rate.

The Philippines

Rural Water Supply and Sanitation Project (V)

Overview of evaluation results and issues observed

The objectives of the project were to construct water supply (public well) and sanitation facilities (toilet) in rural areas where the water service rate is low, develop capacity of local governmental units to

manage water and sanitation services, and organize and train communities to operate and maintain facilities. Thereby it aimed to contribute to the improvement of living conditions.

The result of the evaluation found that the water supply and sanitation

facilities which were constructed remained 15.7% and 42.9% respectively of what were planned.

The causes of the substantial decrease in the number of constructed facilities were the change in needs towards the water supply facilities after the start of the project, and the inability of financially unstable municipalities to collect expenses for the project. The operation ratio of constructed water supply facilities shows 70% at the time of ex-post evaluation, since there were further decrease in the needs of public well and problems of water quality and drying-up of wells. Meanwhile, there were no problems observed in the maintenance of operated facilities, the proportion of population with access to water supply and sanitation facilities increased, workload to fetch water reduced and the hygiene status improved.

Antigua and Barbuda

Project for Construction of Artisanal Fisheries Facilities in Barbuda

Overview of evaluation results and issues observed

The project constructed port facilities and distribution equipment including ice-making and water storage facilities to promote the efficient fishing port operations and the sustainable and effective use of fishery resources in Barbuda Island.

The evaluation results revealed that the rate of the use of facilities constructed by the project was low and catching fresh fish and selling them to outside the Island in order to diversify its lobster-oriented fishery was not achieved. Regarding the sustainability of the project, problems were observed in structural and financial aspects. The reasons pointed out were that each stakeholder had a different recognition about the importance of diversified fisheries due to lack of clear consensus among fishermen and the government.

Recommendations and lessons learned

The necessity was suggested to modify the project design appropriately or downsize the project when change and absence of needs are found during the project period.

Measures to be taken by JICA department in charge of the project

JICA will continue to have regular discussions between the executing agency (the Department of the Interior and Local Government) and each target province to improve the operation rate of the facilities. In particular, JICA will selectively follow up the target provinces where the construction of water supply facilities are yet to be completed and are to be organized using the budget of the Philippine government through monitoring and discussions with stakeholders.

Recommendations and lessons learned

It was recommended that the local stakeholders sort out issues in the fishery sector and establish a plan for utilizing the project, while JICA examines the possibility of providing them with technical assistance. As lessons learned, sharing recognitions and building consensus between fishermen and administrative stakeholders regarding the objectives and necessity of the project was considered an essential process before the commencement of the project.

Measures to be taken by JICA department in charge of the project

As for projects aiming for diversification of fisheries which require awareness and behavioral changes of fishermen as preconditions for achieving the project goals, JICA will carefully examine the feasibility of achieving awareness and behavioral changes of fishermen in the process of formulating such projects.

Bolivia

Project for Improvement of Potable Water System in Southeast of the City of Cochabamba

Overview of evaluation results and issues observed

The Project was implemented with the aim to supply clean water sufficiently for residents in the south-eastern Cochabamba by expanding the existing water purifying plant and constructing new water transmission and distribution pipelines.

As a result of the project implementation, some local residents have benefited from improved water pressure and quality, increased use of water, reduction of water expenses and improved sanitation. However, because of the failure to implement the scope of undertakings of the recipient government as planned (the expansion of water source, the construction of water transmission and the distribution of pipelines) and the time consuming construction of water distribution networks by the residents' organizations, the benefited population was only half of the plan. The water supply volume resulted in only 10% of what was planned and the water supply hours remained only at 2.7 hours/week, while the plan expected to supply water for 24 hours/day without interruption. Because of these shortcomings, it was pointed out in the evaluation that information appraisal and confirmation of important preconditions at the preparatory stage were not adequate.

Recommendations and lessons learned

Recommendations were made to the implementation agency to complete the related projects as described above which are needed for realizing the effects of this project. As lessons learned, it was suggested to conduct a multidimensional analysis for risks on technical, financial, social and political aspects for the related projects which are set as precondition for starting the main project.

Measures to be taken by JICA department in charge of the project

For this case where there is an issue of insufficient water supply to residents mainly due to the delay in expanding the water resources by the recipient government, even though main water treatment systems are constructed and in operation, JICA has been regularly discussing with the executing agency as well as the department and the city to take early measures for securing sufficient quantity of water (survey and development of other water source, etc.) and has been monitoring their activities. In cases where project efficacy depends on associated projects, we are to take full considerations of the progress of such projects.

Tunisia

Photovoltaic Rural Electrification and Water Supply Project

Overview of evaluation results and issues observed

The project aimed to improve livelihood in rural communities and promote development in the livestock industry in Tunisia by installing equipment such as solar photovoltaic systems, thereby contributing to the improvement of overall living standards in the target areas. Specifically, the project consists of two parts: rural electrification by installing decentralized Solar Home Systems (SHS) at each household in remote rural communities and water supply by installing desalination equipment with solar photovoltaic systems on wells for domestic and livestock use.

As a result of the project, remote rural communities were electrified through solar energy and are expected to contribute to the improvement of livelihood in the target areas. However, discussions among relevant ministries on the responsible agency for the operation and management of desalination equipment took long time to reach a conclusion and the installation did not commence during the loan period. Thus, the project has achieved limited effectiveness compared to its plan.

Recommendations and lessons learned

As lessons learned indicated in the part of the water supply, the projects that need participation of different ministries in managing and maintaining facilities, and these with a high degree of difficulty such as projects located in remote areas, it was recommended to incorporate a resolution mechanism into the project's design that will analyze and cope with risks of delay when formulating the plan.

Measures to be taken by JICA department in charge of the project

The water supply component of the project was not implemented due to delay in the decision among related ministries on its operation and management body. Since water shortage is still an issue in Tunisia, particularly in the southern area, JICA will continue to implement inclusive cooperation for the water supply program in Tunisia including the southern area while taking the project design into consideration.

Palestine Authority

Improvement in Local Governance System

Overview of evaluation results and issues observed

The project's objective was to improve the foundation of the local governance system by formulating their policy and strategy and strengthening the capacity of stakeholders in local governments.

Although policy and strategy for the improvement of administrative and financial systems were formulated as a result of the project, the training system for sustainable development and the strengthening of human resources were not implemented, and the improvement of services provided by local governments and the financial decentralization still remain half way. This was caused by the project's approach that targeted quite a broad area of local governance.

While the pilot project for community infrastructure improvement in Jordan River Rift Valley gave positive impact on local people's livelihood, it caused to increase the planned cost and period of the project.

Recommendations and lessons learned

It was recommended to establish and implement training for human resource development of the local governments, and strengthen coordination with Ministry of Finance for the financial enhancement of local governments. As lessons learned, it is important to select appropriate implementation agencies, coordinate with relevant ministries and organizations, and clarify their roles when assisting administrative and financial reform.

Measures to be taken by JICA department in charge of the project

JICA has provided trainings for human resource development with people at local governments including third country training. In terms of the cooperation with relevant ministries, efforts are made to improve local governance system in coordination with the Ministry of Finance and the Ministry of Local Governance. Similarly, JICA exchanges information with the Association of Netherlands Municipalities which provides supports to Ministry of Finance in Palestine.

Ethiopia

The Water Sector Capacity Development Project in Southern Nations, Nationalities and People's Region

Overview of evaluation results and issues observed

This project was implemented in the Southern Nations, Nationalities and People's Regional State with the aim to develop organizational capacity and human resources needed for sustainable operation of water supply systems (rope pump), thereby contributing to increase the rate of access to safe water.

At the time of the project completion, the pump installation and intended human resource and organizational development were not

achieved as planned. Even at the time of the ex-post evaluation, the outlook of its dissemination within the target region was judged as low. This drives from project planning which did not fully examine the conditions for securing the possibility of the pump dissemination (e.g. securing spare parts supply chains) and its dissemination strategy.

Recommendations and lessons learned

It was recommended to analyze inhibiting factors for operation and management as well as dissemination of water supply facilities and to

consider its countermeasures in coordination with central and local governments involved in local water supply. As lessons learned, the importance to analyze external conditions of similar projects and resolve to examine the feasibility and dissemination strategy when the plan is to disseminate specified model were indicated.

Measures to be taken by JICA department in charge of the project

In a technical cooperation project being implemented in the same region from 2012, JICA has been supporting the dissemination of a

specified model (rope pump). JICA is also promoting to introduce a dissemination strategy and systematic organization for managing and maintaining water supply facilities. Moreover, by utilizing lessons from the project for water supply and hygiene programs initiated by the central government, JICA is encouraging to strengthen the maintenance structure and human resource development including the utilization of other donor funds.

Senegal

Project for Sustainable Rural Development

Overview of evaluation results and issues observed

The project aimed to establish a foundation to disseminate and expand a community development method through proper water use (water savings), the maintenance of water supply facilities, and the encouragement of livelihood improvement activities in rural regions by utilizing organization and funds from the existing association of water users in the Louga Region located in a semi-arid zone.

While human resource development and the preparation of community development tools such as guidelines for the establishment and diffusion of a model were completed as a result of the project, its diffusion was not supported with budgets. Thus, effects of the project did not realize. The major reasons for this were as follow; a separate new local organization became necessary as actors of community development activities, since the association of water users had to focus on maintenance of water supply facilities following the policy of the line ministry. Related ministries did not have proper authority and the role for the project implementation due to reform in the ministries.

Recommendations and lessons learned

As lessons learned from the project, it was indicated to select the implementation agency with taking the overall goal (dissemination) into consideration, based on adequate investigation on jurisdiction and authority of the target organization at the project planning stage. In addition, when aiming to disseminate a model or approach, it is necessary to confirm that the recipient government has enough budgets for the project period or to consider a method which is not dependent on the government financial support.

Measures to be taken by JICA department in charge of the project

While problems of diffusing community development model still exist, the guidelines and tools which were developed have been referred to and utilized in other similar projects. For example, in "Project on Promotion of Rural Development in Harmonization with Ecology and Economy: Promotion of Eco Villages" implemented in 2012, they are introduced in its summary section for technology/approach. Moreover, for projects aiming at diffusion of specified model, JICA supports capacity enhancement of the recipient government for allocating necessary budget as well as establishes implementation structure for projects not only by relying on the government but also by emphasizing approach to the community.

Macedonia (Former Yugoslav Republic)

Zletovica Basin Water Utilization Improvement Project

Overview of evaluation results and issues observed

The objective of this project was to stabilize the supply of water service and industrial water by constructing a multipurpose dam and related facilities.

Although sanitary conditions and quality of life has improved in the areas where water is supplied by the project, the raw water supply volume and revenue from water sales are significantly below the planned figures. The main reason was that water supply service to municipalities with large populations has not commenced yet due to the fact that the installation of raw water pipelines from the dam to the water intake facility was not included in the project scope and the water quality was unstable due to mud and water from the tributaries. It was also pointed out that although the revenue can ensure the finance operation and maintenance cost at a minimum level, it would be difficult to obtain revenue enough to cover the investment and rehabilitation cost with the current water rates.

Recommendations and lessons learned

Continuous monitoring of actions to cope with raw water quality was recommended. As for lessons learned, (i) testing of raw water quality and defining appropriate project scope, (ii) proposing alternative measures when the increase in water billing is difficult as well as its monitoring, and (iii) conducting appropriate demand forecast were indicated.

Measures to be taken by JICA department in charge of the project

JICA checked the status after ex-post evaluation and confirmed that the recipient government had been making efforts toward increasing the positive effects of the project through investigation on the raw water quality and is examining countermeasures. We will continue to monitor their activities and provide advice for them.

External Evaluation: Case Studies

The external evaluations of 10 projects are presented below, selected from the 100 projects evaluated in FY2014 by taking into account geographical, scheme, and sector balance.

Republic of India (Case study of External Evaluation ①) Rural Electrification Project

ODA Loan

Evaluation Summary

An estimate of 2.9 million rural households were newly electrified by collaboration of the existing rural electrification scheme of the central government of India.

External Evaluator: Keishi Miyazaki, OPMAC Corporation

Project Description

- Loan amount / Disbursed amount (Loan): 20,629 million yen / 16,949 million yen
- Loan agreement (Loan): March 2006
- Terms and conditions (Loan): Interest rate: 0.75%, Payment period: 15 years (Grace period: 5 years)
- Final disbursement date (Loan): August 2012
- Executing agency (Loan): Rural Electrification Corporation (REC)

Project Objectives

● Overall Goal

To contribute to improvement in the living standards of local residents and vitalizing local economic and social activities in the target three states.

● Project Purpose

To stabilize the transmission and distribution system (relieving the existing overloaded system and reducing transmission and distribution losses), and to expand access to electricity for un-electrified rural households in the three target states of India: Andhra Pradesh*1, Madhya Pradesh and Maharashtra.

● Output

The outputs of this project are construction of new substation, augmentation of existing substations and associated distribution lines in the three target states as below:

- ▷ Construction of new substations (33KV/11KV): 763 locations
- ▷ Augmentation of existing substations (33KV/11KV): 455 locations
- ▷ Installation of 33KV distribution lines: total length 5,983 km
- ▷ Installation of 11KV distribution lines: total length 2,746 km

*1 Andhra Pradesh State was divided into two states in June 2014, Telangana State in the north and Andhra Pradesh State in the south, so there were 4 target states at the time of the ex-post evaluation. In the ex-post evaluation report, 3 states were referred to as the project target states in the relevance and efficiency sections, and 4 states including Telangana State were referred to as necessary in the effectiveness, impacts and sustainability sections.

*2 This project was implemented in collaboration with Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY), a rural electrification scheme of the government of India through the mutual demarcation of responsibilities. That is, on the one hand, this project was responsible for the development of substations and distribution lines between the existing 33KV distribution lines and low voltage transformers at each village, while, RGGVY took charge of developing individual electrical connections between low voltage transformers and each household.

Rating

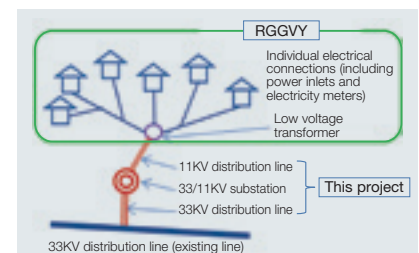
Effectiveness and Impact	③	Overall A
Relevance	③	
Efficiency	②	
Sustainability	③	



A substation constructed by the project (Andhra Pradesh State)



A project beneficiary living in Boni, Vishakhapatnam district, Andhra Pradesh State (After the project implementation, her family was able to use electric appliances such as a television by electrification)



Demarcation between this Project and RGGVY*2

Effects of Project Implementation (Effectiveness, Impact)

The operation and effect indicators such as the system average interruption duration index (SAIDI), the household electrification rate, distribution loss, the bill collection rate, and the electricity sales volume attained their respective target values. An estimate of 2.9 million rural households were newly electrified by this project. Therefore, the project purpose of "to stabilize the transmission and distribution system and to expand access to electricity for un-electrified rural households" was achieved. A large contribution was made to this achievement by some external factors such as the implementation of RGGVY, improvement in distribution losses by each distribution company, improvement in bill collection methods, and the implementation of appropriate maintenance. The beneficiary survey revealed that there were some positive impacts on the economic and social aspects which improved the living standards of local residents such as increased information access, improved

safety after dark, education, hygiene and sanitary conditions, public services, vitalized social activities, and decreased poverty. In particular, an improvement in hygiene and sanitation condition by preserving fresh or cooked foods using a refrigerator, by cleaning bathrooms and an inside of houses using the well water pumped up by use of an electrical pump, etc. was an outstanding example. No negative impact on the natural environment was observed, and the land acquisition was executed according to the related Indian domestic laws. There was no resettlement for this project. Therefore, the effectiveness and impacts of this project are high.

Relevance

The electrification in rural areas is considered one of the most important rural development issues in India both at the time of appraisal and ex-post evaluation. As each of the three target states of the project had more than 3 million households (2001) that were un-electrified, the needs for rural

System Average Interruption Duration Index (SAIDI)

(Unit: Hour/Household per year)

Distribution Company	Baseline	Target	Actual		
	2005	2010	2012	2013	2014
	1 year prior to appraisal	2 years after completion	Completion year	1 year after completion	2 years after completion
TSNPDCL (Former APNPDCL)	1,373	1,005	144	129	83
TSSPDCL (Former APCPDCL)	1,320	930	739	746	752
APEPDCL	1,260	870	42	50	33
APSPDCL	1,300	920	1,109	1,051	916
MPMKVCL-Bhopal	2,328	2,100	2,045	2,045	2,044
MPPKVCL-Indore	3,000	2,400	2,854	2,630	1,970
MPPKVCL-Jabalpur	15,082	9,600	2,300	1,464	1,305
MSEDCL	3,500	2,600	1,190	1,480	1,160

Household Electrification Rate (Electrified Households/ All Households)

(Unit: %)

Distribution Company	Baseline	Target	Actual		
	2005	2010	2012	2013	2014
	1 year prior to appraisal	2 years after completion	Completion year	1 year after completion	2 years after completion
TSNPDCL (Former APNPDCL)	58	100	72	90	92
TSSPDCL (Former APCPDCL)	70	93	89	91	93
APEPDCL	61	85	90	95	98
APSPDCL	70	91	75	86	96
MPMKVCL-Bhopal	24	45	45	47	50
MPPKVCL-Indore	37	85	53	61	65
MPPKVCL-Jabalpur	39	80	N.A.	67	69
MSEDCL	66	87	84	87	90

Distribution Loss

(Unit: %)

Distribution Company	Baseline	Target	Actual		
	2005	2010	2012	2013	2014
	1 year prior to appraisal	2 years after completion	Completion year	1 year after completion	2 years after completion
TSNPDCL (Former APNPDCL)	19	18	14.02	13.82	14.18
TSSPDCL (Former APCPDCL)	21	16	13.42	12.03	11.76
APEPDCL	15	12	6.91	6.46	6.33
APSPDCL	22	21	12.40	11.82	10.68
MPMKVCL-Bhopal	44	38	32.71	30.85	29.60
MPPKVCL-Indore	38	27	30.30	26.39	24.29
MPPKVCL-Jabalpur	31	25	25.12	24.48	23.67
MSEDCL	31	24	18.33	17.46	16.40

Source: JICA internal documents and responses to questionnaires.

* Above index indicates figures for all the districts where the project facilities were developed.

* APNPDCL: Northern Power Distribution Company of Andhra Pradesh Limited, APCPDCL: Central Power Distribution Company of Andhra Pradesh Limited, APEPDCL: Eastern Power Distribution Company of Andhra Pradesh Limited, APSPDCL: Southern Power Distribution Company of Andhra Pradesh Limited, TSSPDCL: Southern Power Distribution Company of Telangana State Limited, TSNPDCL: Northern Power Distribution Company of Telangana State Limited, MPMKVCL-Bhopal: Madhya Pradesh Central Area Distribution Company Limited, MPPKVCL-Indore: Madhya Pradesh West Area Distribution Company Limited, MPPKVCL-Jabalpur: Madhya Pradesh East Area Distribution Company Limited, MSEDCL: Maharashtra State Electricity Distribution Co. Limited.

electricity was high. In addition, Japan's ODA policy prioritizes development of electricity distribution network and rural electrification in India. Therefore, the relevance of the project is high.

Efficiency

Although the project cost was within the plan, the project period significantly exceeded the plan, therefore, the efficiency of the project is fair. There were changes in the project outputs in order to respond to situation changes that were different from the assumptions made at project planning such as coordination with the on-going rural electrification scheme implemented by the central government, changes in priorities in the state governments, changes in construction sites of new substations and the routes of the distribution lines due to difficulties in land acquisition, etc. However, the reasons for changes in the project outputs were justifiable.

Sustainability

The eight distribution companies in the four states are in charge of operation and maintenance of the project facilities. No major problems have been observed in the institutional, technical and financial aspects of the operation and maintenance system, and the project facilities have been maintained in good condition. Therefore sustainability of the project effect is high.

Conclusion, Lessons Learned and Recommendations

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

The project selected the target states based on the four selection criteria such as: (i) Status of achievement of village electrification, (ii) Status of power sector reform, (iii) The repayment status of the existing loan from REC, and (iv) a number of un-electrified rural households, and the project was implemented in collaboration with and/or supplementing RGGVY. The above mentioned selection method for the target states and the project design to supplement the rural electrification scheme by the government of India was effective, and will be a good practice for the similar types of projects in the future. On the one hand, in respect of procurement, the number of contracts was extremely high with a total of 82 full turn-key contracts, in which the procurement of civil works and equipment for each area was packaged into one contract, and 53 partial turn-key contracts. On the other hand, no consultant who could support the procurement management of the distribution companies was employed for this project. As a result, there was a delay in the project and poor performance of contractors in some distribution companies as a certain contractor was awarded multiple contract packages, thus exceeding its implementation capacity.

Therefore, it is required that JICA and the executing agency have discussions on the number of potential contractors participating in the bidding, their capacity and past performance records, as well as the possibility of introducing the bidding conditions prior to project implementation so that a contractor cannot take an order beyond its capacity in a case like this.

Key Point of Evaluation

This ex-post evaluation conducted an additional analysis of the relevance in consultation with the local intellectual person who has knowledge of the power sector policy in India. The additional analysis focused on the following points and issues:

<Relevance to the Project Design>

- As mentioned earlier, the target states were selected based on the the four selection criteria regarding the capacity and situation of the power sector in the target states. The above selection process was critical in order to ensure the improvement in household electrification as well as sustainability of the project. It was economically rational and appropriate for achieving the project purpose effectively.
- RGGVY had a scheme whereby the installation of individual electrical connections and electricity meters was granted at no cost, therefore the project design on the premise of mutually complementary relations

with RGGVY implementation was appropriate as it responded to the development need of promoting electrification in rural areas where there was a large poor population who cannot afford to install them.

<Relevance to the Development Approaches>

- Improvement in electricity access in the un-electrified regions is expected to provide positive impacts on economic and social aspects such as the promotion of agricultural activities using electric irrigation pumps and farming appliances, promotion of commercial activities in commercial and service industries, facilitation of night activities, in addition to the improvement of living standards at a household level. The above positive impacts were confirmed through this ex-post evaluation. Therefore, the intervention theory of this project assumed at appraisal is considered to be appropriate.

Republic of Indonesia: Case Study of External Evaluation ②

Rehabilitation and Improvement Project of Jakarta Fishing Port

ODA Loan

Evaluation Summary

Contributing to the restoration of the function affected by the land subsidence and to the formation of major fisheries base

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

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

Project Description

- Loan amount/Disbursed amount (Loan):
3,437 million yen / 3,382 million yen
- Loan agreement (Loan): March, 2004
- Terms and conditions (Loan):
Interest 1.3%, Repayment 30 years (Grace Period: 10 years)
- Final disbursement date (Loan):
September, 2012
- Executing agency (Loan):
Directorate General of Capture Fisheries (DGCF), Ministry of Marine Affairs and Fisheries

Project Objectives

● Overall Goal

To contribute to the promotion of effective and sustainable use of marine and fishery resources

● Project Purpose

To maintain the function of the fishing port and to make effective use of the related facilities in Jakarta Fishing Port

● Output

Elevation of major facilities such as east and west quaywalls which were sank by the subsidence effect



Control Tower which was built by the Project



Main Gate of JFP (January, 2008)



Main Gate of JFP (at the time of the ex-post evaluation)

Effects of Project Implementation (Effectiveness, Impact)

The project aimed to restore the function of the Jakarta Fishing Port (JFP) and to make effective use of related facilities by elevating and rehabilitating quaywalls and other major facilities which have sunk down by the land subsidence effect.

Before the project, the flood in JFP caused by the land subsidence gave significant damage on the fishery productive activities of the JFP such as fish landing, transport and operation of fishery factories. However, the JFP has restored the function at a level that exceeded before the project seeing from the fact that the indicators set upon appraisal (2001) had been surpassed by far against the target values. For example, fish landing volume has reached more than three times and fish landing value has also increased nearly twice compared to the target value. As a result, the annual fishing handling volume at JFP has been increasing year by year.

According to the beneficiary survey, most of the respondents (84%) recognized the improvement of environment and enhancement of convenience in JFP by raising the points such as "no flooding" and "improvement of road access in the fishing port". It was, therefore, confirmed the effectiveness of measures against flooding and inundation that project

undertook were successfully realized. In fact, currently JFP has been expanding with having more than 300 fishery companies and 46,000 employees. This contributed to the promotion of major fisheries base in Indonesia. Furthermore, since the fishery processing industry employs overwhelmingly women workers, the restoration of function by the project made great impacts on increasing job opportunities for women living near JFP.

Thus, the project's effectiveness and impact are high.

Relevance

Indonesia places a large emphasis to fisheries sector in its development policy as a maritime nation both at the time of the project appraisal and ex-post evaluation. JFP plays an important position for Indonesian economy in terms of fish industry and employment, therefore, the restoration of the function of JFP had high urgency and importance. Furthermore, this project was consistent with Japan's ODA policy. Thus, the project's relevance is high.

Efficiency

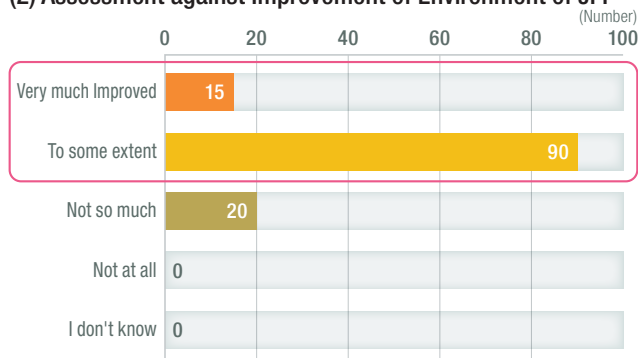
Project cost was as planned utilizing the surplus with the yen gains although the additional construction works were implemented due to the

(1) Total Fish Handling Volume at JFP



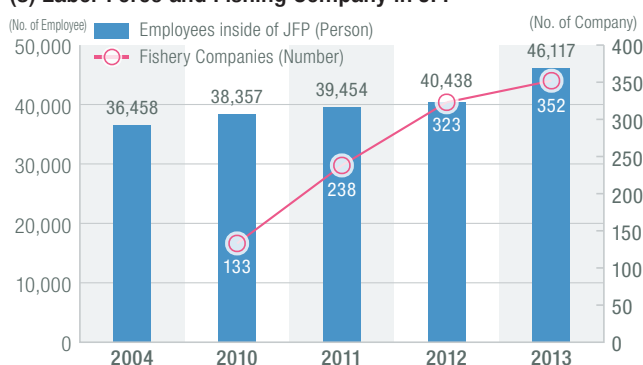
Source: Statistics of JFP, DGCF (2013)

(2) Assessment against Improvement of Environment of JFP



Source: Results from the beneficiary survey. A total of 125 samples were collected at random with face to face interviews; Wholesale dealers (23), Fish retailers (15), Fish boat crews (14), Fish processing workers (29), Workers at JFP (35), and People living nearby JFP (9). The breakdown of respondents is 105 males and 20 Females.

(3) Labor Force and Fishing Company in JFP



Source: Results from questionnaire survey to DGCF

serious flood during the project period and the advancing land subsidence which were more than expected. On the other hand, the project period was significantly exceeded the plan because of the additional construction works and the prolonged selection time of the consultant due to the difference of procurement regulations between Government of Indonesia and JICA. Thus, the project's efficiency is considered fair.

Sustainability

Some minor problems were observed in institutional and financial aspects. The divisions of work and responsibility in terms of detailed maintenance activities at the operational level remained unclear between the two operation and maintenance organizations for JFP, "UPT" under the Ministry of Marine Affairs and Fisheries and "PERUM" under the Ministry of State-Owned Enterprises. While no particular financial problem has been observed for routine maintenance, there is a room to improve the financial matters for future rehabilitation and improvement which requires construction works. Thus, the project's sustainability is fair.

Conclusion, Lessons Learned and Recommendations

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

A lesson learned from the project was raised regarding the procurement procedures if the new procurement rules were established in the partner country. JICA and the partner country are required to clarify the differences between the two regulations and confirm how the procurement should be conducted in an early manner. In this project, it took an extra time to reconcile the procurement regulations between JICA and the executing agency on the submission period of proposal. This caused delay of the commencement of the project.

The recommendations to the executing agency include; 1) clarification of role and responsibility between UPT and PERUM for smooth operation and maintenance and development of the detailed guideline and manuals for specific operational works immediately after the agreement has been reached; 2) periodical monitoring of the effect by the continuous land subsidence at the various locations in JFP and allocation of the necessary staff for this purpose; 3) development of a medium and long term plan for operation and maintenance taking into account of the further impact by the land subsidence; and 4) periodical monitoring of water quality of sea water inside and outside of JFP since there is a few company draining waste water without treatment although the negative environmental impact has not been confirmed at the time of the ex-post evaluation.

Key Point of Evaluation

"Maximization of effects based on many years of cooperation"

JFP has been developed through the Yen loan projects implemented in four phases since the 1970s. This was the rehabilitation project to restore the functions of the fishing port. However, it also contributed to the further effective utilization of the fishing port based on the facilities and innovative approaches that have been established through the projects.

For example, the idea of utilizing mangrove was adopted for the improvement of the breakwaters, which was used for revetment in the Phase 4 project. The project expanded width and planted dense mangrove to absorb waters by driving sheet piles and putting sediments on the inner side of the existing breakwaters. This represented a unique

method in the world. The project incorporated efficient and environmentally friendly approach and it has established recognition as an environmentally friendly fishing port among port users coupled with greening development in the fishing port that has been conducted previously. Another example is a sea water cleaning system which utilizes the difference of tidal levels instead of using the conventional way of heavy pumps. It was also an idea adopted under the Phase 4 project, and it was improved to simplify the maintenance of the system by this project. These approaches actually are the fruits of ideas of the Japanese consultant who has been involved since the Phase 1 project, which is well noticed by the executing agency as well as people involved in JFP. This kind of continuous cooperation also contributed to the strengthening the trust and ties between Indonesia and Japan.

People's Republic of China (Case study of External Evaluation ③) Broadcasting Infrastructure Improvement Project (Qinghai Province)

ODA Loan

Improving television and radio broadcasting across an inland province of Qinghai

External Evaluator: Yusuke Hasegawa, International Development Center of Japan Inc.

Rating		
Effectiveness and Impact	③	Overall B
Relevance	③	
Efficiency	①	
Sustainability	③	

Project Description

- Loan amount / Disbursed amount:
2,354 million yen / 2,353 million yen
- Loan agreement: March, 2004
- Terms and conditions:
Interest rate: 0.75%; Repayment period: 40 years (Grace period: 12 years);
- Final disbursement date:
August, 2012
- Executing agency:
People's Government of Qinghai Province

Project Objectives

● **Overall Goal**
Contribute to the advancement of education, knowledge enhancement, and cultural enrichment of the citizens in Qinghai and also promote mutual understanding between China and Japan

● **Project Purpose**
Improve the quantity and quality of the TV and radio programs in Qinghai Province

● **Output**
Update the broadcasting infrastructure and provide training to the staffs of the broadcasting stations



Setting Up the HDTV Broadcasting Van for Broadcast (QHBTB)



Delivered Studio Equipment and Facilities at Local Broadcast Station (Hainan Tibetan Autonomous Prefecture)



Locations of Target Broadcast Stations (△)

Effects of Project Implementation (Effectiveness, Impact)

The goal of this project was to improve the quantity and quality of TV and radio programs in Qinghai Province by updating the broadcasting infrastructure and providing training to the staffs of the broadcasting stations. Regarding the quantitative effects of the project, a majority of indicators defined at the time of appraisal achieved the target values. The achieved indicators include such items as broadcast coverage and the number of TV viewers in Qinghai Province, the share of independently produced programs, the number of programs related to disaster, environmental conservation, and public health, and the number of programs targeting children. On the other hand, the number of programs produced in foreign countries did not achieve the target values mainly because broadcasting these programs is regulated and subject to the approval of the higher authorities. Currently, Qinghai Radio and TV Station (QHBTB) does not broadcast such programs. From the aspect of qualitative effects, the use of equipment and facilities procured in this project at QHBTB improved the quality of broadcast through the diversification of program production tools, enhancement of production techniques, promotion of business operations, and so on. Appreciation of QHBTB's programs from viewers and concerned persons has generally been improving.

As regards impacts of the project, it was found that QHBTB is making an effort to respond to the needs of society with an increase in programs about disaster prevention after a big earthquake hit the province in 2010, and by expanding its programming such as programs broadcast in the Tibetan language to improve the information access of ethnic minority groups. The audience is also utilizing the programs for their daily lives.

Therefore, effectiveness and impact of the project are high.

Relevance

The Government of China has been aiming for informatization and the increase of the coverage of TV and radio broadcasting as a means of ensuring people's cultured living in its five-year plans, and also recognizes the importance of broadcasting as a means of bridging the economic gap between urban and rural residents in the province. In addition, Japan's ODA policies for China at the time of appraisal such as improvement of livelihood and promotion of social development in the inland areas were consistent with the project.

Therefore, relevance of the project is high.

Table: Main Operation and Effect Indicators

Indicator	TV / Radio	Baseline	Target	Actual
		2003	2010	2013
		Baseline Year	1 Year After Completion	(Latest Year)*
Broadcast Coverage in Qinghai (%)	————	89.6	90.0	96.93
TV Viewers in Qinghai (10 thousand households)	————	97.5	112.0	156.7
QHBTB: % Share of independently produced programs (%)	TV	9.86	15	20
	Radio	60	66	80
QHBTB: Number of programs related to disaster management (programs/year)	TV	364	380	410
	Radio	730	912	979
QHBTB: Number of programs related to environmental conservation (programs/year)	TV	208	218	240
	Radio	2,920	3,650	3,907
QHBTB: Number of programs produced in other countries (in Japan) (programs/year)	TV	624 (219)	624(238)	0 (0)
	Radio	94 (38)	114 (67)	0 (0)
QHBTB: Number of programs targeting ethnic minority groups (programs/year)	TV	312	468	484
	Radio	5,840	7,300	8,243

Source: Documents provided by JICA and Executing Agencies; *Statistical Yearbook of China*

* Though this project was completed entirely in July 2014 with the deliveries to a local broadcasting station, the deliveries to QHBTB were completed in 2012. Therefore, actual figures for 2013 are shown in the table and they are the latest data available at the time of ex-post evaluation.

Efficiency

While the project outputs were appropriately produced with some modifications to the original plan, the project cost exceeded that of the plan. The project period (125 months) was significantly longer than planned (70 months), which was generated cumulatively by the revising of the procurement contracts, the delay of the procurement process of each contract, and so on.

Therefore, efficiency of the project is low.

Sustainability

After the project started, the Qinghai TV Station and the Qinghai Radio Station were merged into QHBTB, and QHBTB and the Qinghai Radio Film and Television Bureau, the provincial supervising body, became organizations that are equally ranked at the same level of administration. However, the division of responsibility for the equipment and facilities procured in this project has been clearly organized without any problems. It is considered that the presence of sufficient technology for operation and maintenance is ensured both in QHBTB and the Bureau, and the necessary funding is secured.

Therefore, sustainability of the project effects is high.

Conclusion, Lessons Learned and Recommendations

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

Key Point of Evaluation

Significant contribution to enhancing the level of broadcast across the province

A unique feature of this project is that it was designed to provide broadcasting equipment and facilities not only to the province level broadcasting station, namely QHBTB, but also to the Qinghai Radio Film and Television Bureau and local broadcasting stations at the prefecture, city, and county levels in the province, aiming for developing the broadcasting infrastructure and enhancing the levels of producing and broadcasting technology in the entire province of Qinghai. At QHBTB, the HDTV Outside Broadcasting Van made it possible to flexibly produce and broadcast quality programs through, for instance, live broadcasts; a full-scale digital system was realized in all stages of recording, editing, and airing; and the improved stationwide operational network generated

The following lessons are drawn from this project: (i) Information sharing should be strengthened among a broad range of concerned parties during the implementation of the type of project involving quickly changing technology, taking into consideration that the more the project is prolonged, the wider the gap in technical needs is created between the needs at the planning stage and those at the time of delivery; (ii) In view of the fact that the purchase of Japanese TV programs planned in the soft component of this project was not realized, if the planned activities in the soft component are susceptible to the direct impact of policies and regulations, such as licensing and approval of the government, we need to conduct information processing and analysis in advance that focuses particularly on feasibility; and (iii) Considering that the document or the press release disclosed at the time of the launch of this project did not elaborate the cooperation to be rendered to the local stations at the prefecture, city and county levels as part of the project, it is necessary to provide information on cooperation projects adequately and proactively, fully considering the effect of dissemination.

In November 2014, the broadcasting station of Hainan Tibetan Autonomous Prefecture commenced full-scale operations of its new broadcast center, thus beginning the operation of all equipment and facilities procured in this project. We recommend that the executing agency and JICA implement public relations activities concerning this project, which has played a significant role in developing the broadcasting infrastructure and enhancing the levels of producing and broadcasting technology across Qinghai Province.

an efficient operation model. For the broadcasting stations at the local level, the equipment and facilities were provided when they were faced with a shortage of funds, supporting for the digitalization policy of the government. At the Qinghai Radio Film and Television Bureau, the equipment and system provided by this project led to the establishment of its broadcast monitoring center which can monitor the status of the TV programs being aired by broadcasting stations in the province. In addition, high-quality equipment and facilities of Japanese origin were actively procured in this project under the STEP condition. The extensive cooperation by providing high-quality equipment and facilities planned in the hard component of the project greatly contributed to raising the level of broadcast in the entire province of Qinghai.

Bhutan (Case study of External Evaluation ④)

Construction of Educational Facilities

Grant Aid

Evaluation Summary

Expansion of basic education opportunities in remote mountainous areas.

External Evaluator: Takeko Iinuma, Senshu University

Rating

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

Project Description

- Grant limit/Actual Grant amount (Grant):
Grant Aid: 781 Million Yen*1 / 490 Million Yen
Grant Aid for Community Empowerment: 1,064 Million Yen / 1,064 Million Yen
- Exchange of notes (Grant):
Grant Aid: June 2005
Grant Aid for Community Empowerment: May 2008
- Project Completion (Grant): June 2011
- Implementing agency (Grant):
Ministry of Education

Project Objectives

● Overall Goal

To increase access to basic education and to improve educational quality.

● Project Purpose

To improve the conditions of basic education facilities and to increase access to basic education in 5 schools of 4 districts.

● Output

To construct the secondary schools' educational and hostel facilities and to provide relevant furniture in 5 schools of 4 districts.

*1 This represents the grant limit of the two terms of exchange of notes that were actually signed, out of the four terms originally planned. The original planned amount in total was 1,810 Million Yen.



Classroom, Kabjisa School, Punakha District



Girls' Hostel, Phobjikha School, Wangdue District



Four-classroom Building, Chukha School, Chukha District

Effects of Project Implementation (Effectiveness, Impact)

This project aimed to improve the basic education facilities and to expand access to basic education through the construction of educational and hostel facilities and through the provision of furniture in five secondary schools in four districts (Kanglung School in Trashigang District, Chukha School in Chukha District, Pakshikha School in Chukha District, Phobjikha School in Wangdue District, and Kabjisa School in Punakha District).

With regard to the quantitative effects of the project's effectiveness, the achievement of the operation indicators (the number of schools and classrooms) met the planned target of construction of five schools with 76 classrooms in four districts, yet the achievement of the effect indicator (the number of enrolled students) fell short, accounting for 37.9% (3,330 students at the time of the evaluation in March 2015) of the target (8,790 students in 2009), and hence its achievement was limited. On the other hand, there was an improvement in terms of the number of students per classroom, and the qualitative effects such as the satisfaction rate with facilities were at a desirable level. With regard to impact, the expected level of outcomes was achieved in general, namely, through improved effectiveness in access to education as seen in shortened commuting time and in educational quality as seen in effective class management.

Therefore, this project has somewhat achieved its objectives, and its effectiveness and impact are fair.

Relevance

The improvement of basic education access and educational quality has been one of the most important objectives in the long-term national plans and the five-year plans of Bhutan; the project focused on secondary schools, whose needs were increasing in basic education; the project has been in accordance with the Japanese aid policy's emphasis on the expansion of educational opportunities. Therefore, this project has been highly relevant to the country's development policies and plans, development needs, as well as Japan's ODA policy, and, thus, its relevance is high.

Efficiency

The total project costs for the two forms of financial cooperation applied for this project, namely the Grant Aid and the Grant Aid for Community Empowerment, were 85.9% of the plan. However, due to the reasons such as unsuccessful bidding, the actual project period was 122.0% of the planned period. Therefore, its efficiency is fair.

Sustainability

The institutional aspect of operation and maintenance is well organized based on the networks of the Ministry of Education, District Education Office,

Comparison of Planned and Actual Outcome Indicators

Outcome Indicators		Baseline	Target	Actual*2	
		2004	2009	2011	2015
		Assessment year	Project completion year (Construction completion)	Project completion year	4 years after Project completion year
Operation indicators	Number of middle and higher secondary education facilities in 4 districts	13	18*3	18*3	18*3
	Number of usable classrooms in the 5 schools	18	94	92	92*4
Effect indicators	Total enrolment in the 5 schools	1,819 persons	8,790 persons	2,621 persons	3,330 persons
	Number of students per classroom	101 persons*5	93.5 persons / room	28.5 persons	36.2 persons

Sources: "Basic Design" (2005) and interviews with schools (March 2015).

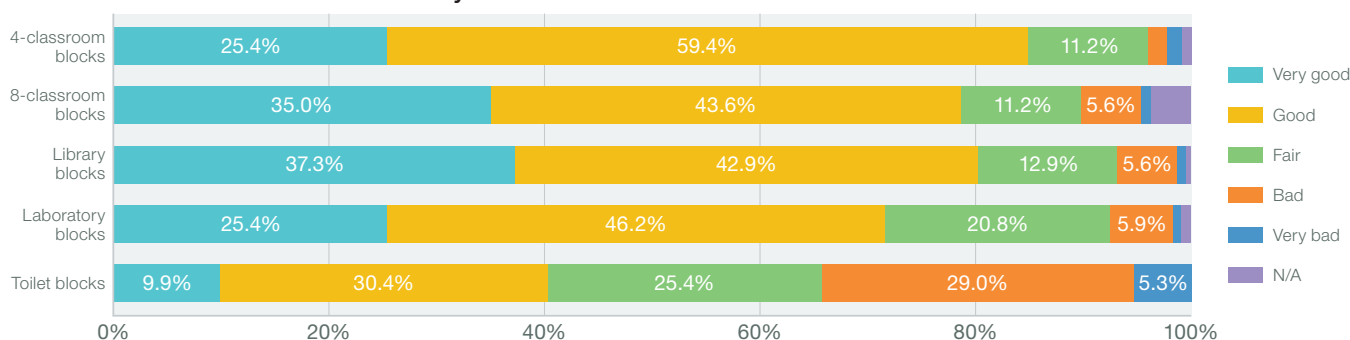
*2 Enrolment in 2011 is based on Annual Education Statistics. Figures for 2015 are based on the interviews.

*3 Excludes other schools than the project schools in the 4 districts. Of the five target schools, three include primary and lower secondary education facilities, and one includes lower secondary education facilities.

*4 The final number of the usable classrooms totaled 92 for the reason that Kanlung School's relocation to a new school site in 2005 resulted in 2 less classrooms.

*5 This figure is based on the enrolment of 5 schools as 1,819 persons and the number of usable classrooms as 18. In effect, schools at that time were obliged to use other old classrooms in dilapidated states.

Evaluation of Educational Facilities by Students



Source: Beneficiary Survey

The survey was conducted in all 5 educational facilities constructed under the project. Purposive sampling was employed, selecting all students in Year 10, the final year in middle secondary education. The survey sample involved 149 male students and 154 female students. The survey period was from February to March 2015.

and schools; technical aspects of operation and maintenance have basically no problems; regarding the financial aspect, there are constant issues of insufficient operation and maintenance budgets; and the current status of operation and maintenance showed that all schools have issues such as repair needs. Therefore, sustainability of the project effect is fair.

Conclusion, Lessons Learned and Recommendations

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

Lessons learned include the following. The reason why the level of effectiveness was evaluated merely fair is that this project had set a target much higher than the actual capacity of the facilities. It is necessary to set a realistic target as an outcome indicator of the project. Another lesson learned is that, even if the construction of certain components are under the

responsibility of the implementing agency, it is advisable to discuss the possibility of integrating into the aid package the components that are less likely to be secured by the implementing agency but are indispensable in assuring the effective use of the facilities (e.g., building of fences around the school to ensure student safety).

Recommendations to enhance sustainability are the following. It is necessary for the implementing agency to urgently carry out certain large-scale repairs, which cannot be borne by the schools. Given that the operation and maintenance budget is perpetually insufficient, it would be beneficial to promote the sharing of experiences and successful cases regarding operation and maintenance with all the schools constructed under the project. For schools, since most of the possible problems of operation and maintenance can be extrapolated, it is necessary to aim for preventive measures against damages at an early stage.

Key Point of Evaluation

Status of the improvements in the conditions of basic education facilities according to a beneficiary survey.

In this evaluation, analyses were made based on the beneficiary survey of teachers and students with the perspectives of educational quality and access as important elements for improvement of the conditions of basic education facilities.

In terms of educational quality, the nationwide average student-to-teacher ratio is 20 persons (2014) while the average student-to-teacher ratio of the 5 project schools is similarly 20.7 persons (2015), which is at an appropriate level. According to the survey, more than 80 percent of the teachers at 5 schools (70 responses obtained out of 161 teachers) responded "very good" or "good" with regard to the impact on their classes of the educational

facilities of this project. This implies that these educational facilities had a positive influence on teachers' class management in general.

As for educational access, the survey showed that approximately one third of the students in the 10th grade (303 respondents, including 154 females) responded that their commuting time was within 1 hour, for whom building schools within their commutable distance was highly beneficial. The survey showed a strong tendency of girls' preference for attending school by residing in the school hostel for the reasons of avoiding risks along the commuting route and of being able to focus on studies freed from the domestic burden based on the sexual division of labor. This suggests that the construction of girls' hostels in schools contributed to the improvement of educational access for girls.

Socialist Republic of Viet Nam (Case study of External Evaluation ⑤) The Project on Strengthening the Capacity of ITSS Education at Hanoi University of Technology (Phase 1) (Phase 2) Technical Cooperation

Developing engineers equipped with skills of information technologies (IT) and Japanese language at a top university in engineering in Vietnam.

External Evaluator: Takako Haraguchi, International Development Associates, Ltd.

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

Project Description

- Total cost: Phase 1: 261 million yen Phase 2: 453 million yen
- Period of cooperation: Phase 1: October, 2006 – September, 2008
Phase 2: March, 2009 – February, 2012
- Partner country's implementing organizations: Hanoi University of Science and Technology (HUST)
Ministry of Education and Training (MOET) (Oversight Agency)
- The number of experts dispatched: (long term) None
(short term) 54 persons (21 for Phase 1 and 33 for Phase 2)
- The number of technical training participants: In Japan: 38 persons (14 for Phase 1 and 24 for Phase 2)
In Third Country: None
- Main equipment provided: Office equipment, etc.

Project Objectives

● Overall Goal

ITSS*1 3 equivalent level IT human resources are sufficiently provided to the IT and IT related fields

● Project Purpose

Phase 1: The capacity to conduct the activities towards the establishment of the "School"*2 or its equivalent is developed

Phase 2:

- 1) Administration of HEDSPI Program*3 functions as an educational body
- 2) HEDSPI Program produces IT engineers who have enough basic knowledge on IT and Japanese language

● Output

Phase 1:

Establishment of the organization and the system for the "Program"*4 management; improvement of skills of teaching and administration staff; preparation of the curriculum, syllabi and teaching materials for undergraduate and intensive courses; setting of IT equipment; implementation of the undergraduate course and piloting of intensive courses; establishment of the collaboration system with industries and other institutes; collection of information on the IT market; dissemination of information; preparation for establishment of the School

Phase 2:

Establishment and strengthening of the organization and the management system of the Program; establishment of the collaboration system with industries; preparation and revision of the syllabi and teaching/learning materials for undergraduate and intensive courses; provision of undergraduate and intensive courses

*1 ITSS: The Japan's Skill Standards for IT Professionals. See "Key Point of Evaluation" for details.

*2 School: An education / research institution that is independent within a university. While placed in the same level as faculties in the organizational structure, schools enable high quality human resource development, integrated technical transfer and research.

*3 HEDSPI: Higher Education Development Support Project on ICT (information and communication technologies), a cooperation program consisting of the same-titled ODA Loan project (2006-2016) and this technical cooperation project. The education program that HEDSPI supported in establishment and management is called "HEDSPI Program."

*4 Program: A set of special education courses (undergraduate or postgraduate programs) offered at a faculty or school of a university.



Students of the Vietnam-Japan Program (HEDSPI Program) of the School of Information and Communication Technology (SolCT), HUST



IT Japanese class



Software company founded by a graduate

Effects of Project Implementation (Effectiveness, Impact)

This project, in combination with the ODA Loan project, aimed to launch HEDSPI Program that is characterized by its conformity with ITSS and IT education in Japanese language under Phase 1, and to consolidate the management of HEDSPI Program under Phase 2.

HEDSPI Program opened and accepted Batch 1 undergraduate students in September 2006, and its management system and course contents were developed under Phase 1. In September 2009, after the commencement of Phase 2, the School of ICT (SolCT) consisting of the existing Faculty of IT and HEDSPI Program opened. Although there were some challenges such as the delays in the procurement of equipment under the ODA Loan project, the issues over technical transfer related to management system, and the issues over development of intensive courses for working people, the undergraduate course was managed mostly as planned. By the time of project completion, 111 students of Batch 1 graduated and got jobs in IT companies, majority of which were Japanese companies. Therefore, it can be judged that the project purposes of both phases were mostly achieved. After the completion of the project, HEDSPI continued to produce graduates every year (cumulative total

of 382 persons as of the academic year 2014), and more than 90% of the graduates are working as IT engineers. However, it cannot be confirmed whether such graduates are "ITSS Level 3 equivalent" human resources that the overall goal aimed to provide at a sufficient scale.

Therefore, effectiveness and impact of the project are evaluated to be fair.

Relevance

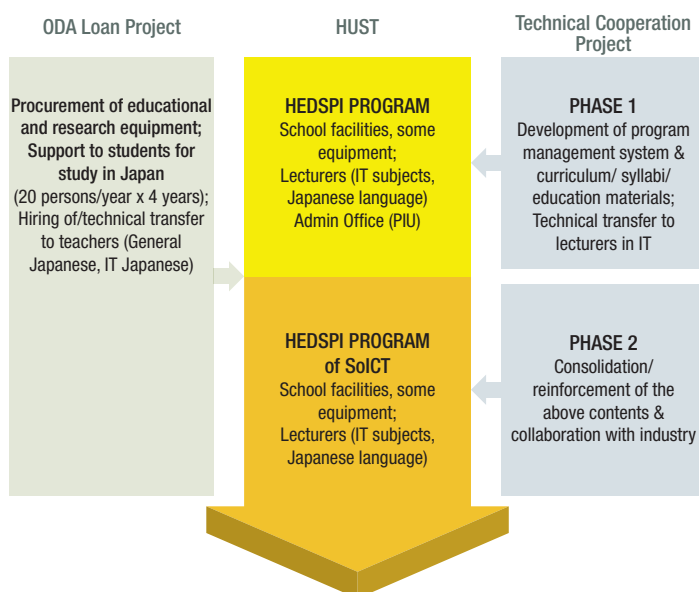
This project was consistent with the Vietnam's development policies that placed importance on promotion of the growing IT industry and development of IT human resources of international standard, the demand for engineers equipped with both Japanese language and IT skills in relation to the expansion of offshore development by Japanese IT companies, and the Japan's assistance policies such as the Asia IT Initiative, an international IT strategy. Therefore, relevance is high.

Efficiency

Both the project cost and project period were within the plan. Therefore, efficiency of the project is high.

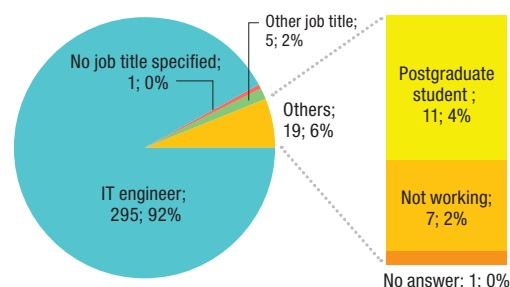
Composition of HEDSPI

Sources: Prepared based on JICA documents, etc.

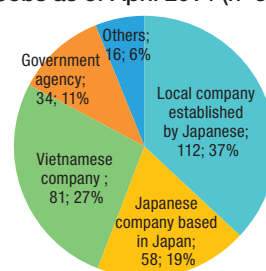


Employment Situation of Batch 1-3 Students of HEDSPI Program

Source: Prepared based on data provided by the implementing agency.



Jobs as of April 2014 (n=320)



Places of employment of 301 respondents with jobs

Sustainability

While no major problems are observed in management of HEDSPI Program at the time of the ex-post evaluation, there are some issues such as uncertain prospects of continuation of the implementation set-ups for the Program after completion of the ODA Loan project in 2016, and effects of the leaving of Japanese language lecturers who received technical transfer on the level of teaching Japanese language. Therefore, sustainability of the project effects is fair.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be satisfactory. Lessons were learned from the integrated implementation of technical cooperation and ODA Loan. First, it is necessary in both planning and implementation stages to consider flexible measures against potential negative effects of progress of the other projects (this project realized it

through undertakings such as dividing the project into two phases). Second, conduct of a program-level evaluation covering both projects (schemes), rather than evaluation of an individual constituent project (as this ex-post evaluation did), may make it possible to draw more accurate evaluation results as well as more useful lessons learned. Other lessons include: clarification of division of roles between the partner country side and the Japanese side in technical cooperation in organizational and management aspects (in case of this project, the areas the Japanese side could not intervene became clear during project implementation); and careful analysis of feasibility of adult education courses conducted by university lecturers (in case of this project, intensive courses to teach applied technologies to working engineers did not work well).

Recommendations for HUST include measures to continue HEDSPI Program after the completion of the ODA Loan project, and the maintaining of the teaching level of Japanese language by securement of Japanese language lecturers and in cooperation with Japanese companies.

Key Point of Evaluation

Measuring the overall goal (degree of achievement of ITSS Level 3) with unclear means of verification defined

ITSS is a set of indicators defined by the Ministry of Economy, Trade and Industry of Japan for skills required for provision of IT-related services. ITSS consists of the indicators ranging among Levels 1 to 7 for each area of specialization. Level 3 and higher levels require work experience in addition to knowledge. This project developed the curriculum covering the Level 3 knowledge and expected as the overall goal that graduates with such knowledge would reach Level 3 after a few years of professional practice, although how to measure the attainment was not specified. Therefore, this evaluation first used the number of passers of the Information Technology Professionals Examination Council (ITPEC) Common Examination as the most objective indicator of ITSS levels. The ITPEC Common Examination is an examination that Information-Technology Promotion Agency, Japan (IPA) has disseminated to Asian countries as a compatible to the Japan's Information Technology Engineers Examination (ITEE). However, information was not available except that two students passed the examination when they were in HEDSPI Program and that at least one graduate passed it. Interviews with related parties revealed that the number of examinees is small as the examination has not been widespread in Vietnam.

Next, as a qualitative indicator, the evaluation used the number of graduates who satisfied the requirements for Level 3 defined by IPA as the "evaluation indicator without using ITEE," namely, "Can accomplish all required tasks without help. Trying to establish a specialized area of one's skills. Has applicative knowledge and skills necessary to be a professional. Continuous improvement of one's skills is required in skill development*5." Out of the 24 graduates who responded to the questionnaire survey at the time of ex-post evaluation, six persons self-evaluated that they had skills equivalent to ITSS Level 3. Also, three out of the five persons from IT companies who responded to the survey agreed that the recruited HEDSPI Program graduates had skills equivalent to ITSS Level 3. However, the number of respondents was too small to correctly estimate how many of the total number of graduates are qualified that way. Also, several interviewed companies commented that there was no difference in technical capacity between HEDSPI Program graduates and IT engineers who graduated from other universities in Vietnam.

More than 90% of graduates were active as IT engineers after project completion, and some of them are considered to have reached "ITSS Level 3 equivalent," the expected target. However, there was no means to correctly measure such results. Therefore, effectiveness and impact of the project was evaluated to be fair.

*5 Source: IPA, "IT Sukiru Hyojun Hayawakari (quick guide to ITSS)," 2011.

Federated States of Micronesia (FSM) (Case study of External Evaluation ⑥) The Project for Improvement of Pohnpei International Airport

Grant Aid

Contributed to the improvements of safety at the time of takeoff and landing as well as the capacity of passenger and cargo handling

External Evaluator: Keisuke Nishikawa, Japan Economic Research Institute Inc.

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

Project Description

- Grant limit / Actual Grant amount:
2,913 million yen / 2,790 million yen
- Exchange of notes: September, 2008
- Project Completion: August, 2011
- Implementing agency:
Department of Transportation, Communication
and Infrastructure / Pohnpei Port Authority

Project Objectives

- **Overall Goal**
To improve the level of services to passengers
as an international airport
- **Project Purpose**
To improve the safety of airplanes at the time
of takeoff and landing and to increase the
capacity of passenger handling
- **Output**
To rehabilitate and extend the runway, and to
expand and renovate the terminal building



Carousel for Checked-in Baggage



Reclaimed and Extended Runway



X-ray Screening Device

Effects of Project Implementation (Effectiveness, Impact)

This project was implemented to improve the safety of airplanes at the time of takeoff and landing while increasing the capacity of passenger handling by rehabilitating and extending the runway and expanding and renovating the terminal building at Pohnpei International Airport.

As a result of rehabilitating and extending the runway, it was confirmed that sufficient safety level was ensured at the time of takeoff and landing with sufficient distance secured from the end of the runway to the coast line and elimination of practical restrictions on the payload of airplanes. The effect of minimizing the psychological burden of pilots at takeoff and landing was also seen. Furthermore, the airport's passenger handling capacity and service level also improved with the expansion of the terminal building. With regard to the improvement of services, a high level of satisfaction was observed in the beneficiary survey targeting the airport users particularly in terms of the easing of congestion and the improvement of comfort of the terminal building. As for the impact on the natural environment, there were no negative impacts as sufficient countermeasures were taken, and neither resident resettlement nor land acquisition cases occurred.

In light of the above, the effectiveness and impact of this project are high.

Relevance

This project can be said to have been in line with FSM's development plans and development needs as the airport has played an indispensable role in the air transportation of this island nation, at the time of planning and ex-post evaluation. It has also served as a project to support infrastructure development, which was a priority area for Japan in FSM at the time of planning, and was highly consistent with Japan's ODA policy at that time. Therefore, the relevance of this project is high.

Efficiency

In this project, outputs necessary to generate project effectiveness were achieved though there were slight changes in detailed components of the project from the initial plan. The project cost for outputs was within the planned amount but the project period exceeded the plan by 34%. Therefore, the efficiency of the project is fair.

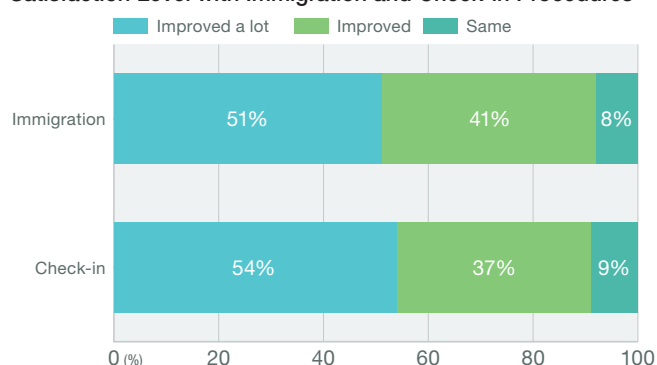
Operation Indicators of this Project

Indicator	Baseline (2007)	Target (2012)	Actual			
	Planning	1 year after completion	2011 Completion year	2012 1 year after completion	2013 2 years after completion	2014 3 years after completion
Easing of payload	Reduced by approx. 20%	Eased (increase by 12% (cargo arrival) / by 20 seats)	No data (However, no weight restriction is imposed)			
Time required for immigration*1	9.5 minutes	5 minutes	5 minutes	5 minutes	4 minutes	3 minutes
Time required for customs clearance*1	2.6 minutes	1.6 minutes	2 minutes	2 minutes	2 minutes	2 minutes

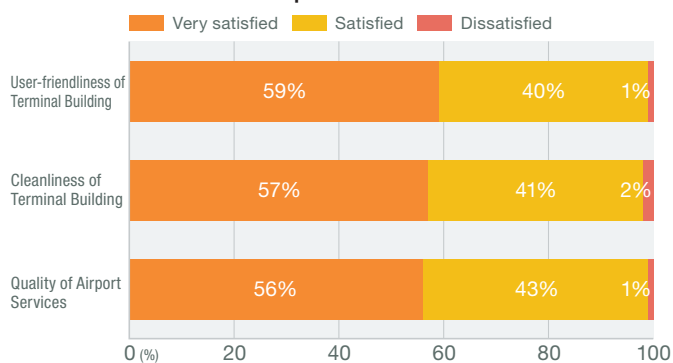
Source: Basic design study report and data provided by the implementing agency

*1 According to the implementing agency, the length of time required for immigration and customs clearance is an approximate figure.

Satisfaction Level with Immigration and Check-in Procedures



Satisfaction Level of Airport Users



Source: Result of the Beneficiary Survey (Face-to-face interviews were conducted (mainly at the airport departure lounge) with 103 departing passengers (Male: 65, Female: 38) who have used Pohnpei International Airport before and after the implementation of this project. The interviewees were selected by non-random sampling method.)

Sustainability

Pohnpei Port Authority, the implementing agency of this project, is in charge of operation and maintenance. While technical assistance has been extended by the Federal Aviation Administration of the United States (U.S.), there are no particular concerns on the institutional, technical and financial aspects as well as operation and maintenance status. Therefore, the sustainability of the project effects is judged to be high.

Conclusion, Lessons Learned and Recommendations

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

A lesson learned is that it will be important to ensure sufficient information sharing and coordination from the initial stage of planning among the related parties including governments of the recipient countries in a project supported by several donor agencies. Pohnpei International Airport is an airport where safety is administered by the Federal Aviation Administration and this project was implemented in parallel with the U.S.-assisted project*2. Information was shared from the development study stage among the organizations concerned and sufficient consultations and coordination were made when this project was designed, all of which led to smooth implementation of the entire plan including this project.

As a recommendation, it will be necessary to further strengthen the operation and maintenance structure including independent maintenance of airfield lighting while putting in perspective a possibility of a significant decline in the financial support level after the Compact of Free Association*3 between FSM and the U.S. comes to an end in 2023.

*2 As a result of consultations with the implementing agency and the Federal Aviation Administration, development items regarding the runway, apron, airfield lighting, etc., were shared.

*3 Compact of Free Association: A bilateral agreement signed between FSM and the United States on political, defense, and economic cooperation

Key Point of Evaluation

Position of this Project on the Island-hopper Route and the Evaluation

In FSM, the 'Island-hopper' route connecting Guam, Chuuk State, Pohnpei State, Kosrae State, then Hawaii through the Marshall Islands, was not only indispensable for FSM domestic travelers but served as the only international air route for the nation. Under this condition, this project extended the runway of Pohnpei International Airport from 1,836m to 2,068m to improve takeoff and landing safety and it was confirmed that the effects initially expected were generated. However, the length of the runway is 1,831m at Chuuk Airport and 1,753m at

Kosrae Airport, both of which are connected with Pohnpei International Airport on the Island-hopper Route, and takeoffs from these airports with full payload are still difficult as the runways are short. Therefore, as it was difficult to say that the merit of runway extension at Pohnpei International Airport was fully utilized, how to treat this matter became the key point of the evaluation. The result was that this point was not included in evaluation judgment as the extension of runways at Chuuk and Kosrae airports was outside the scope of this project and as the initially planned effect for safety improvement in Pohnpei International Airport has been generated in this project itself.

Central America (El Salvador, Costa Rica, Guatemala, Nicaragua, Panama, Honduras) (Case study of External Evaluation ⑦)

The Project on Capacity Development for Disaster Risk Management in Central America "BOSAI" Technical Cooperation

Disaster risk management based on collaboration between municipal authorities, local communities and residents: Seeking a model for Central America

External Evaluator: Hajime Sonoda, GLOBAL GROUP21 JAPAN, INC.

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

Project Description

- Total cost: 495 million yen
- Period of cooperation: May 2007 ~ May 2012
- Partner country's implementing organizations: Executive Secretariat of CEPREDENAC (SE-CEPREDENAC)
Each country's disaster risk management agency:
El Salvador, Civil Disaster Risk Management Agency (Civil Protection)
Costa Rica, Comisión Nacional de Emergencias (CNE)
Guatemala, The National Coordination for Disaster Reduction of Guatemala (CONRED)
Honduras, Permanent Contingency Commission (COPECO)
Nicaragua, National System for Disaster Prevention, Mitigation and Relief (SINAPRED)
Panama, National System for Civil Protection (SINAPROC)
- The number of experts dispatched: Long-term experts: 3
Short-term experts: 17
- The number of technical training participants: Japan: 4 trainees, Group training in Japan "Disaster Risk Management Measures in Central America," 56 trainees
Third country training in Mexico "Civilian Safety and Disaster Risk Management," 30 trainees
- Main equipment provided: Early warning system, vehicles, office equipment

Project Objectives

● Overall Goal

Information, knowledge, and methodologies on local disaster risk management in Central America are commonly utilized in different areas in the region.

● Project Purpose

Communities' and municipal authorities' capacity for disaster risk management is strengthened in the target areas, and the capacity of CEPREDENAC members for promoting local disaster risk management is strengthened.

● Output

1. The mechanism for disaster risk management is strengthened in target communities in collaboration with municipal authorities.
2. Knowledge of disaster risk management is promoted in target communities.
3. Disaster response and risk reduction goals, tools, and activities are included in municipal plans in the target areas.
4. Capacity for promoting local disaster risk management is enhanced in the respective national disaster risk management agencies and SE-CEPREDENAC.
5. Mechanism for disseminating information, experience and methodologies about local disaster risk management is established.



Sign for a tsunami evacuation route near the coast (Nicaragua)



Hazard map displayed at school (El Salvador)



Basic rain gauge managed by a residents' organization (Panama)

Effects of Project Implementation (Effectiveness, Impact)

The Project was implemented with the objective of conducting local disaster management activities in the six selected Central American countries, thereby enhancing the disaster risk management capacity of the target communities and municipal authorities which have jurisdiction over them. By utilizing the experience and knowledge acquired in this process it also aimed to improve the disaster risk management implementation capacity of the respective national disaster risk management agencies and the office of the Center of Coordination for the Prevention of Natural Disaster in Central America (SE-CEPREDENAC). Concerning the Project purpose, the goal of improving the disaster risk management capacity of the target municipal authorities was achieved, however, only partial progress was made regarding the reduction of vulnerability to disasters in the target communities and improvement of knowledge and ownership about local disaster risk management in national disaster risk management agencies and SE-CEPREDENAC. The degree of achievement of outputs and Project purpose was high in those countries and areas where target municipalities and communities with a high priority for

disaster risk management were selected; the central government has clear policy and a concrete support setup for assisting municipalities and communities; there is active and direct involvement by counterparts and trainees who have returned home from training in Japan in schemes separate from the Project; there is active participation by residents in construction of disaster risk management facilities, and so forth. Concerning the overall goal of sharing and utilizing information, knowledge, and methodologies on local disaster risk management, it has been realized within the countries but little progress has been made in transnational terms. Reasons are that systems for disseminating information on local disaster risk management by returning trainees were not built; there has been little specifically useful data for this purpose; it requires time and funding to introduce know-how that has been developed in other countries, and so on. Accordingly, the Project effectiveness and impact have been fair.

Relevance

The Project had high relevance to development policy and needs of Central America, and it was also relevant to the Government of Japan's ODA policies,

both at the time of the ex-ante evaluation and the ex-post evaluation. One point of issue is that the basic framework was not adequately clarified in the planning documents, however, overall, the Project had a high degree of relevance.

Efficiency

The Project was implemented over the scheduled period, however, part of the Project purpose was not achieved. Because the amount of aid was higher than planned due to the additional implementation of expert guidance and equipment supply to target communities and the number of target municipalities and communities increased, the level of efficiency was fair.

Sustainability

Many of the disaster risk management agencies in each country are faced with financial constraints. The organizational framework for disaster risk management on the national level is falling into place, however, in many municipal authorities, disaster risk management is not given high priority while frequent staff turnover hinders sustainability. Activities are hardly being continued at roughly one-third of the target municipalities and communities, and Project sustainability is deemed to be medium.

Conclusion, Lessons Learned and Recommendations

To sum up, it is deemed that the Project had some issues.

As a part of the Phase 2 activities of the Project scheduled for implementation from fiscal 2015, it was recommended that the respective national disaster risk management agencies verify successful cases and good practices that were introduced through the Project, and then strive to establish ongoing training systems and setups for continuously supporting the municipalities and communities. Concerning JICA, it was recommended that support be offered for disseminating successful cases throughout Central America via the Phase 2 activities. Also, JICA was recommended to examine utilization of disaster risk management education in schools for community disaster risk management.

As lessons learned, concerning technical cooperation including capacity building of municipalities and communities, it was deemed necessary to specify a framework for building a model and establishing a national level system for dissemination and it was deemed necessary to set appropriate selection criteria and select municipalities and communities where the priority for disaster risk management is high in order to ensure the efficient and effective implementation of community capacity building. It also became clear that the support for infrastructure should be utilized to ensure the effective building of organizations in communities, and that combining activities with training in Japan was effective for efficiently permeating new concepts in technical cooperation. Furthermore, concerning wide area cooperation, it was

found desirable to first carefully review the different conditions and examine the project goals and activities specifically for each country, and where necessary, set country-based indicators and activities within the common PDM^{*1}.

^{*1} Project Design Matrix (PDM) is a summary of a project that defines the project design including necessary inputs, activities, purposes, indicators, and external conditions as well as the logical relations between them in the design.

Figures, tables, etc.
Evaluation Sheet^{*2} Mean Scores, Numbers of Target Municipalities and Communities, and Features of Activities and Outputs by Countries

Country	Evaluation Sheet Mean Score			Numbers of target municipal authorities and communities; activities, and results
	Country (Out of 6)	Municipal authorities (Out of 10)	Communities (Out of 11)	
El Salvador	3.0	9.5	5.7	The targets comprising 5 municipal authorities and 17 communities were dispersed, and multiple types of disasters were targeted. Activities have mainly been conducted in the municipal authorities, but they have been delayed in the communities. The disaster risk management agency dispatches personnel all over the country to support the municipal authorities.
Nicaragua	6.0	9.5	8.8	Activities focusing on tsunami disaster were conducted in 1 municipal authority and 3 communities. The disaster experience was relatively new, and the intensive, continuous activities produced results.
Guatemala	5.5	8.9	7.3	Volcanic disaster was targeted in 4 municipal authorities and 20 communities located around a volcano. The municipal authorities had little interest and needed to be involved through the direct intervention of the central government. Due to the frequent occurrence of small-scale eruptions, the local villages have strong interest.
Costa Rica	5.5	8.6	6.0	The targets comprising 4 municipal authorities and 7 communities were dispersed, and multiple types of disasters were targeted. The anticipated organization did not progress in the municipal authorities and civilian groups, so unique methods such as conducting school education and making door to door visits were adopted.
Honduras	3.0	8.0	7.9	5 municipal authorities and 9 communities. Wind, flooding and sediment disasters were targeted. The disaster risk management agency had little involvement and the municipal authorities were also fragile, however, outputs were achieved in numerous communities thanks to the efforts of the coordinators employed by JICA.
Panama	3.5	4.7	6.0	The targets comprising 3 municipal authorities and 6 communities were dispersed. Wind, flooding and sediment disasters were targeted. Since the municipal authorities had very little involvement, the central government directly intervened in villages. Because remote municipalities and communities were included among the targets, the activities could not be conducted efficiently.

Source: Prepared by the evaluator based on the data provided by JICA and information obtained in the field surveys.

^{*2} The evaluation sheets measured the degree of achievement of the Project purpose on the three levels of communities, municipal authorities, and each country's disaster risk management agency and SE- CEPREDENAC.

Key Point of Evaluation

Good Practices on Japanese community disaster risk management expected to be disseminated.

The following good practices were found in the Project, and it is anticipated that they will become disseminated upon undergoing verification and documentation.

The Frog Caravan was conceived in Japan based on the experience of the Hanshin-Awaji Earthquake. By rescuing a frog that has met with an earthquake or fire, children learn about disaster risk management while playing various games, and this approach has been welcomed by children in various countries.

In some communities, local residents have provided labor in conducting embankment and slope protection works utilizing old tires, constructing simple multipurpose halls and so on with high earthquake

resistance and generally contributing to mitigating damage and promoting disaster risk management activities. The active participation of residents in the construction of locally needed facilities has helped to enhance the motivation of inhabitants and unity of said organizations.

In schools, disaster risk management organizations composed of teachers and students have been strengthened, school hazard maps and emergency response plans have been compiled, evacuation training has been supported, and in some countries the enthusiastic efforts of teachers have resulted in major vitalization of school disaster risk management. In Phase 2, it is anticipated that the targets of disaster risk management education and activities in schools can be expanded and this can be linked to disaster risk management in communities.

Republic of Burundi (Case study of External Evaluation ⑧) The Project for Strengthening Capacities of Prince Regent Charles Hospital and Public Health Centers in Bujumbura City for Improvement of Mother and Child Health **Technical Cooperation**

Evaluation Summary

Focused cooperation on simple and easy 5S activities to establishing patient-centered maternal and neonatal care

External Evaluator: Makoto Tanaka, ICONS Inc.

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

Project Description

- Total cost: 290 million yen
- Period of cooperation: January, 2009 - January, 2012
- Partner country's implementing organizations: Ministry of Public Health and Fight against AIDS
- The number of experts dispatched: short term 12
- The number of technical training participants: Japan: 7, Third-country : 21
- Main equipment provided: 1 vehicle (4WD), 6 computers, 2 copy machines, etc.

Project Objectives

● Overall Goal

Quality of services for maternal and neonatal care is improved at Prince Regent Charles Hospital and targeted 9 health centers.

● Project Purpose

Patient-centered maternal and neonatal care is practiced under improved management at Prince Regent Charles Hospital and targeted 9 health centers.

● Output

1. Leadership of the top and middle class managers is fostered at Prince Regent Charles Hospital and targeted 9 health centers, involving directors of facilities and heads of all departments & units.
2. Work environment for maternal & neonatal care is improved through practicing 5S*¹ activities under the leadership of directors.
3. Preventive maintenance of medical equipment is continuously practiced with full participation of health staff in the targeted facilities.
4. Knowledge and skills of nursing staff (including midwives) are upgraded for maternal & neonatal care at the targeted facilities.

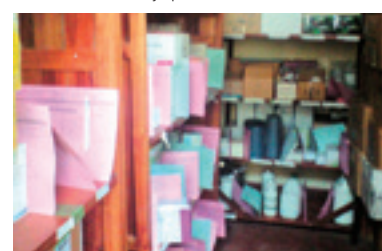
*1 5S stands for Seiri, Seiton, Seiso, Seiketsu and Shitsuke in Japanese, which mean Sorting, Setting-in-Order, Shining, Standardizing and Sustaining the Discipline respectively.



Instruction on 5S posted on a bookshelf in Prince Regent Charles Hospital



Visitors in an orderly queue in the health center



Medicines stored in proper order for easy operation

Effects of Project Implementation (Effectiveness, Impact)

Targeted at health facilities in Bujumbura City, the capital of Burundi, which experienced a civil war for more than 10 years, this project aimed to establish patient-centered maternal and child care under improved operation and management by improving the working environment through the practice of 5S activities, upgrading knowledge and skills of nursing staff, and continuously practicing preventive maintenance of medical equipment provided through the grant aid project completed in 2010.

As a result of practice of 5S activities, the working environment has improved with visible outcomes: the facilities are kept clean, equipment/machinery sorted and set, and in compliance with the rules in place, etc. The progress of 5S activities is quantitatively demonstrated by increase in scores of 'Monitoring and Evaluation Sheets'.

The total number of deliveries at the targeted health centers steady increased from 2,226 in 2011 to 3,137 in 2014. The obstetrical staffs at the target facilities practice delivery care, understanding the contents of the 'Normal Delivery Care Checklist'. The beneficiary survey in which mothers having given birth at the target facilities were asked about their satisfaction

level for hospital services such as nursing care they had received at the time of their labor, such as "Did they welcome me with smiles?", found high satisfaction rates.

In light of the above, the effectiveness and impact of the project are high.

Relevance

Aiming to establish patient-centered maternal and neonatal care, this project was in line with Burundi's development policy and need, which identified the reduction of maternal and neonatal mortality as a priority issue. This project was also consistent with Japan's ODA policy for Burundi, which was constituted of two pillars at the time of the project planning: the consolidation of peace and the improvement of basic living environments.

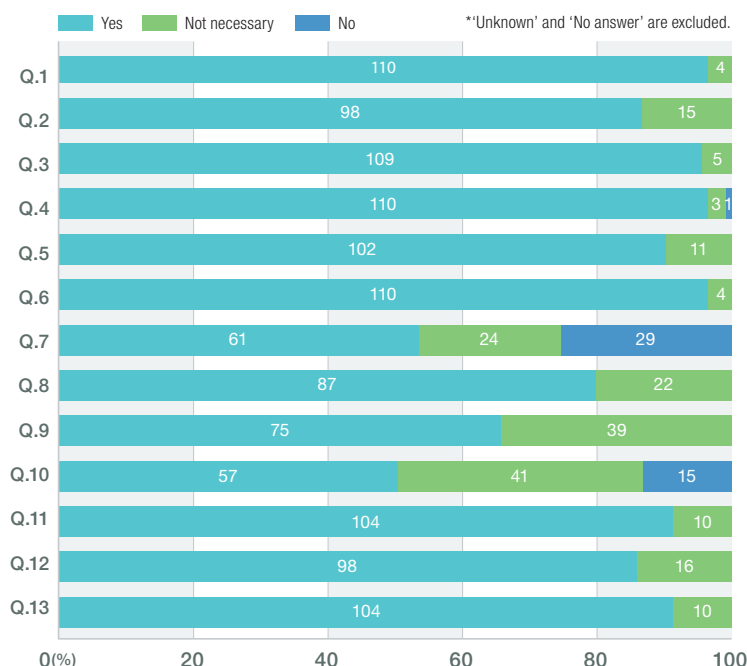
Therefore, the relevance of the project is high.

Efficiency

The inputs of the project were modified after the mid-term review; the number of experts in maternal health and other field was increased, and their TOR became more specific. As a result, although the project period was within the plan, the project costs exceeded the plan.

Mothers' satisfaction with the care from nurses

設 問	
Q.1	Did they welcome me with smiles?
Q.2	Did they help me when I walked?
Q.3	Did they explain the health condition of mother and child after the consultation?
Q.4	Did they help me to lie on the beds in the labor room?
Q.5	Did they sometimes encourage me during delivery?
Q.6	Did they teach me how to breathe and push at the time of delivery?
Q.7	Did they suggest for me to take light meals and water during labor pains?
Q.8	Did they let me take a comfortable position at the time of delivery?
Q.9	Did they lay my baby on of my stomach right after the delivery?
Q.10	Did they teach me to keep holding my baby until putting in the incubator (baby less than 2,500 g)?
Q.11	Did they celebrate with me after the delivery?
Q.12	Did they explain to me the procedure beforehand?
Q.13	Did they teach me health care after the delivery and child care?



Source: Beneficiary Survey. The subjects of the survey are 114 mothers who had given birth at the target facilities from 15 July 2010 to 9 January 2015. (Those who visited the facilities from 12 to 27 January 2015 and kindly answered to the interviews.)

Therefore, the efficiency of the project is fair.

Sustainability

Monitoring systems have been developed to measure the progress of the 5S activities introduced by the project. At the target health centers, meetings were held once or twice a month under the leadership of managers. No major problems have been observed in the policy environment and the organizational, technical, and financial aspects of the implementing agency.

Therefore, the sustainability of the project effects is high.

Conclusion, Lessons Learned and Recommendations

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

Although the project purpose was "Patient-centered maternal and neonatal care is implemented under improved management at Prince Regent Charles Hospital and targeted health centers", the initial focus of the project was on the improvement of the working environment through 5S activities which

require no expensive equipment or advanced technologies. As such, 5S could be applied even to institutions in a dilapidated condition, and yet effective to meet their management needs. Moreover, 5S contributed to improvements in the medical and health services, for example, by clarifying the order of outpatients to be treated and reducing the waiting time.

The Burundian side is currently working to promote 5S activities through trainings by applying their experiences in the project. The National 5S Committee of the Ministry of Public Health and Fight against AIDS has become the main body, and the staff members of Prince Regent Charles Hospital, the model hospital, started to hold on-site seminars for public hospitals during their visit at local hospitals. Through such efforts, it is expected that the trainees would be further inspired and motivated if staff members who have engaged in the project activities would not only explain 5S, but also speak frankly in their own words how and what were improved though the project and what was difficult in establishing 5S activities.

Key Point of Evaluation

Project design in post-conflict fragile countries

In Burundi, which experienced a civil war from 1993 to 2005, medical and health facilities deteriorated, and their quality of their services suffered. In order to improve this situation, medical equipment was provided to the facilities through the grant aid project. Subsequently this technical cooperation project was implemented to improve operation and management of the target facilities.

While aiming to establish patient-centered maternal and neonatal care, this project focused its activities on simple and easy 5S activities. This approach has effective in a post-conflict fragile country such as Burundi,

facing a lack of human and financial resources. The target facilities could form a foundation for improving the working environment and established a good management system by strengthening the leadership and promoting 5S activities under their leadership. In addition, the Burundian side used 5S activities to strengthen the knowledge and skills of nursing staff, and keep them aware of delivering patient-centered maternal and neonatal care. These efforts have enabled to realize the high effectiveness and impact of the project, as implied by the high satisfaction rates shown in the beneficiary survey.

Mauritania (Case study of External Evaluation ⑨) Water Supply Project in the Southern Region in the Islamic Republic of Mauritania

Grant Aid

Contributing to improving health of target people and effective utilization of time for daily activities through construction of water supply facilities with boreholes in rural areas

External Evaluator: Hisae Takahashi & Maki Hamaoka*¹, Ernst & Young Sustainability Co., Ltd.

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

Project Description

- Grant limit / Actual Grant amount: 617 million yen / 587 million yen
- Exchange of Notes: Phase 1/2: June, 2004
Phase 2/2: July, 2005
- Project Completion: Phase 1/2: March, 2006
Phase 2/2: February, 2007
- Implementing agency :
Direction of Water Supply, Ministry of Water Supply and Sewerage

Project Objectives

● Overall Goal

To improve living conditions of the residents of the 47 target villages of Hodh El Gharbi Province and Assaba Province

● Project Purpose

To increase the safe and stable water supply coverage in the target villages of the project

● Output

Construction of boreholes with foot pump and water supply facilities (hereinafter called "Level 1 facilities") in 40 sites and boreholes with motor pump and water supply facilities including elevated water tank (hereinafter called "Level 2 facilities") in seven sites in the target villages and provision for survey and maintenance equipment.

*1 Joined the evaluation team as a team member from Foundation for Advanced Studies on International Development (FASID)



Borehole with foot pumps



Boreholes with motor pumps and water supply facilities (elevated water tank and machinery house)

Effects of Project Implementation (Effectiveness, Impact)

In Mauritania, people in rural areas were forced to use drinking water from unsanitary water sources such as shallow wells, swamps and rainwater. Unsanitary water use was one of the main causes for epidemic of waterborne diseases. In addition, women and children traveled long distances in search of drinking water. Such harsh labor deprived children of opportunities for education.

A total of 40 Level 1 facilities and five Level 2 facilities were constructed by the project. The actual number of people who were newly served with water through the project was 23,145 against the original target value of 24,454 (95% of the planned target). In the implementation stage, two sites were reduced due to overlapping of target sites for projects with other organizations. The planned target for population served with water after removal of the excluded two sites was 22,489, and the actual number of benefitted people was 23,145, which is 103% of the target number. In light of the above, the target was achieved as expected.

After the project, use of water sources that are considered unsafe has not been observed; hence, safe water sources (boreholes) have been in use continuously. The number of people affected by diseases related to poor water quality has decreased. In addition, water fetching time has been significantly reduced and has allowed the utilization of time for other economic activities and school attendance. Thus, the life of women and children has improved.

On the other hand, with regard to effects expected at the planning stage, effects were limited in some aspects; improvement of operation and maintenance of Level 1 facilities by users was limited since operation and maintenance activities such as regular meetings and cleaning around water supply facilities have not been sufficiently practiced; water quality analysis capacity, was not improved as intended since the procured equipment for

water quality monitoring has been poorly utilized.

In light of the above, this project has achieved its objectives to some extent, but some of the effects have not been achieved. Therefore, effectiveness and impact of the project are fair.

Relevance

The government of Mauritania has placed emphasis on the improvement of the access to drinking water from the planning stage to the time of ex-post evaluation. The percentage of the poor was relatively high in rural areas including the target provinces, and the project responded to the development needs for increasing the safe water supply coverage in the target areas. Support to ensure safe drinking water was positioned as one of the priority sectors of the Japan's ODA policy for Mauritania. Therefore relevance of the project is high.

Efficiency

When the project's actual cost was compared against the planned cost after considering the decreased number of facilities actually installed, the actual cost was 97% of the planned cost. The project period was 32 months as planned. Both the project cost and project period were within the plan. Therefore, efficiency of the project is high.

Sustainability

With regard to operation and maintenance of water supply facilities, the National Office for Rural Water Service (*Office National des Services d'Eau en milieu Rural*, hereinafter called "ONSER") is responsible for regular field visits and repairs of severe breakdowns beyond capacity of community users to repair for Level 1 facilities, and regular inspection and repairs of severe breakdowns for Level 2 facilities. The community organizations are

Table: Water-supplied population and functioning rate of the constructed facilities in the project target villages

Indicator	Target		Result					
	(2006)		Project completion (Phase 1/2:2006, Phase 2/2:2007)		Ex-post evaluation (2015)			
	No. of facility	Pop. served with water	No. of facility	Pop. served with water	No. of facility	No. of functioning facility	Functioning rate	Pop. served with water
Level 1 facilities								
Assaba	14	5,892	14	6,187	6	6	100%	3,059
Hodh El Gharbi	26	12,778	26	12,898	20	12	60%	6,147
Level 1 Total	40	18,670	40	19,085	26	18	69%	9,206
Level 2 facilities								
Assaba	1	1,197	1	1,175	9	7	78%	5,237
Hodh El Gharbi	6	4,587	4	2,885	10	9	90%	6,016
Level 2 Total	7	5,784	5	4,060	19	16	84%	11,253
Total	47	24,454	45	23,145	45	34	76%	20,459

Source: Target: Basic design study report (2004), Result (2006) (2007): Documents provided by JICA, Result (2015): Documents provided by the implementing agency.

* 14 out of 40 Level 1 facilities constructed through the project were upgraded to Level 2 water supply facilities after the project completion with support from the government of Mauritania, other donors such as the World Bank, GIZ and NGOs.

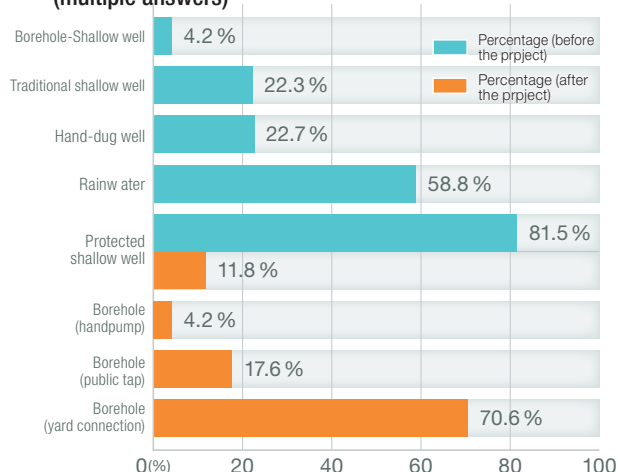
responsible for the daily operation and inspection of the facilities, repair of the facilities at the time of breakdown, cleaning and water fee collection. While the functioning rate of water supply facilities constructed by the project is relatively good, as shown as 76% at the time of the ex-post evaluation, operation and maintenance of the facilities leave room for improvement in many ways, such as personnel deployment and financial capacity of the ONSER; personnel deployment, technical and financial capacity of community organizations for Level 1 water supply facilities and a system for implementing water quality monitoring. Thus, the sustainability of the project effect is fair.

Conclusion, Lessons Learned and Recommendations

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

Lessons learned from this project were: (a) it is desirable to carefully review the appropriateness of the organizations to place the equipment for water quality monitoring through capacity assessment of concerned organizations during the planning stage and to support the concerned parties to establish a detailed plan of utilization of the procured equipment, which allow its effective

Water sources in the rainy season before and after the project (multiple answers)



Source: Results of the beneficiary survey

The beneficiary survey targeted 19 water supply facilities in total: 6 Level 1 facilities and 13 Level 2 facilities (8 generator-powered facilities and 5 solar-powered facilities) among 45 facilities constructed through the project. Households were selected through judgement sampling (snowball sampling) from households living in the target villages before 2006 in order to grasp the change before and after the project implementation. Sampling size was 238. The breakdown of respondents is 161 males and 77 females.

utilization and (b) with regard to support for the establishment of the community based operation and maintenance of rural water supply facilities through soft component activities, in case that it is deemed necessary for further assistance at the time of the project completion, it is desirable to consider continued support such as coordination with other schemes to secure a sustainable operation and maintenance system.

Recommendations made to the implementing agency included: (a) the ONSER to allocate necessary human resources and budget for non-operating but repairable facilities; (b) the ONSER to conduct detailed water quality analysis for the water supply facilities which have the possibility of water salinization and to plan development of a new water source, if necessary; (c) for Direction of Water Supply of the Ministry of Water to transfer the non-utilized equipment for water quality monitoring from its Regional Direction to the regional office of the ONSER, which is the main implementer of water quality monitoring, so that the ONSER can draw up a feasible, detailed plan of water quality monitoring.

Key Point of Evaluation

Establishment of a water quality monitoring system and technical support for "sustainable safe water supply"

In this project, the Basic Design study confirmed that existing wells in the project target area had problems in water quality. Therefore, it was important to ensure safe water supply through regular water quality monitoring even after the construction of new boreholes.

However, the equipment procured for the water quality monitoring has not been fully utilized and the water quality monitoring has been rarely conducted. Despite the fact that water quality is rarely tested in the operation stage in Mauritania and an implementation system for water quality monitoring had not been established, the technical transfer during the project implementation mainly focused on how to use the equipment and a detailed plan to utilize the procured equipment in the future was not prepared. In the ex-post evaluation, the evaluation of

"sustainable safe water supply," one of the viewpoints to evaluate the effectiveness and impact of the project, was constrained by the lack of the water quality monitoring data. Therefore, "safe water" in the ex-post evaluation is judged based on international definition of safe drinking water such as definition to evaluate the goal related to the access to safe drinking water in the Millennium Development Goals, namely, using drinking water from water sources such as piped water, public tap, borehole, protected shallow well., that adequately protect the source from outside contamination, particularly from excretion.

In conducting similar projects in the future, when the rural water supply sector in the subject country does not have much experience in regular water quality monitoring, it is necessary to include technical assistance such as detailed capacity assessment of organizations to place the equipment in the planning stage and establishment of a plan for utilization of the procured equipment in the implementation stage.

Former Yugoslav Republic of Macedonia (Case study of External Evaluation ⑩)

Zletovica Basin Water Utilization Improvement Project

ODA Loan

Evaluation Summary

Absence of raw water pipelines in the upstream area negatively affected quality and supply volume of raw water

External Evaluator: Nobuyuki Kobayashi, OPMAC Corporation

Rating		
Effectiveness and Impact	①	Overall D
Relevance	②	
Efficiency	②	
Sustainability	②	

Project Description

- Loan amount/Disbursed amount (Loan): 9,689 million yen / 9, 685 million yen
- Loan agreement (Loan): November 2003
- Terms and conditions (Loan): Interest 1.5%, Repayment 25 years (Grace Period: 7 years)
- Final disbursement date (Loan): January 2013
- Executing agency (Loan): Ministry of Agriculture, Forestry and Water Economy

Project Objectives

● Overall Goal

To contribute to the improvement of living standards among residents and the promotion of industry in the region.

● Project Purpose

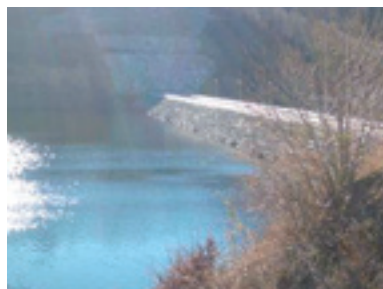
To stabilize the supply of municipal and industrial water.

● Output

Construction of a multipurpose dam, water intakes, and raw water pipelines in the eastern part of Macedonia.



The water intake constructed by this project



The dam constructed by this project



Water discharge from the dam

Effects of Project Implementation (Effectiveness, Impact)

This project intended to stabilize the supply of municipal and industrial water by construction of a multipurpose dam, water intakes, and pipelines and aimed at the improvement of living standards among residents and the promotion of industry in the region.

The results of the beneficiary survey in the service area showed improvements in sanitary conditions and shortening of time for drawing water. There were seven municipalities including Stip, Probistip, Sveti Nikole, Zletovo, Lozovo, Karvinci, and Kratovo listed as the target area for water supply at the time of appraisal. However at the time of the ex-post evaluation, water supply was commenced only in Probistip and Sveti Nikole. This was due to the fact that pipelines were not installed from the dam to the water intakes in the upstream area, and the water was contaminated with mud and water from tributaries in the section. As a consequence, the supply of raw water did not commence by the time of ex-post evaluation in the municipality with a large population since raw water did not satisfy its quality standards occasionally. Raw water volume for municipal water did not reach its target due to the limitation of the service area. Moreover, raw water sales revenue was below its target as raw water volume was less than planned and unit sales price was

low. Thus, the effectiveness and impact of this project are low.

Relevance

This project to construct a multipurpose dam and relevant facilities is in line with the Macedonian national development policy and their development needs as well as Japan's ODA policy. However, the output of this project was not sufficient to generate outcome as the project plan was partially inappropriate. Therefore, the relevance of the project is fair.

Efficiency

The main outputs are the construction of a dam, water intakes, and pipelines in the lower and middle stream. The changes from original plan include the cancellation of the rehabilitation of water intakes, the construction of a pumping station, the extension of raw water pipelines, and the construction and rehabilitation of water treatment plants. While the project cost was less than planned, the project period exceeded the plan due to a delay in the procurement and an extension in the construction period. Thus, the efficiency of the project is fair.

Raw Water Volume for Municipal Water and Raw Water Sales Revenue at PE Hydrosystem "Zletovica"

	Target	Actual	
	2012	2013	2014
	Two years after project completion	One year after project completion	Two years after project completion
Raw Water Volume for Municipal Water	11,276,000m ³	2,183,000m ³	2,377,000m ³
Raw Water Sales Revenue	179 million MKD	6.5 million MKD	9.5 million MKD



Served area at the time of ex-post evaluation

Sustainability

PE Hydrosystem "Zletovica" is in charge of O&M of the facilities constructed by this project. No major problems have been found in the institutional and technical aspects and the revenue of PE Hydrosystem "Zletovica" can ensure a minimum level of finance for O&M activities. Nevertheless, it will be difficult to recover the investment cost and the enterprise can hardly secure sufficient revenue to cover even rehabilitation under the current tariff scheme. Therefore, the sustainability is fair.

Conclusion, Lessons Learned and Recommendations

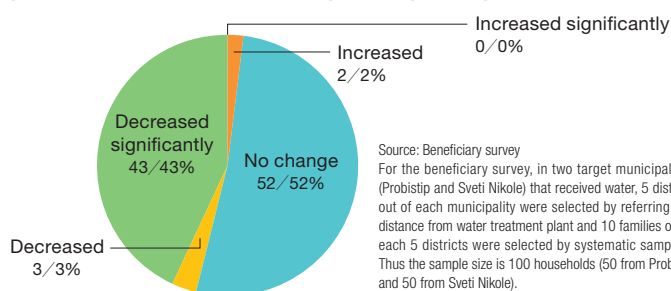
In light of the above, this project is evaluated to be unsatisfactory.

As a lesson learned from this project, adequate assessment of raw water quality and defining appropriate project scope can be pointed out.

At the time of appraisal, water quality to be achieved under the project scope was not assessed adequately. As of the time of ex-post evaluation, due

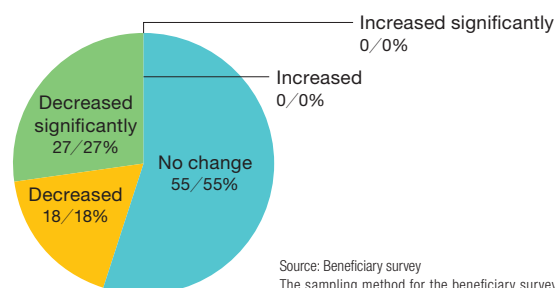
Less frequency of diarrhea after the project completion

Do you have diarrhea more frequently than 5 years ago?



Shorter time for drawing water after the project completion

Has the time for drawing water increased compared to 5 years ago?



to the issue of water quality, supply of raw water has not commenced in some areas. As a result, the supplied raw water volume has been below its target. For a project to provide raw water to water treatment plants, it is desirable to define a project scope in the beginning or modify a project scope in the project implementation phase in consideration of necessary raw water quality to be achieved under the project scope and beneficiary's needs.

As water supply to the municipality with a large population has not commenced due to high turbidity, the project benefit is geographically limited. This issue is likely to be solved if the subsequent project is implemented. As of the time of the ex-post evaluation, however, the implementation of the subsequent project has not been concrete yet. It is recommended that the executing agency plan a small size investment to solve the water quality issue (such as installation of sedimentation tank) if implementation of a subsequent project to construct raw water pipelines from the dam to the water intakes remains difficult in near future.

Key Point of Evaluation

Logic Model Analysis for Project Relevance Assessment and Learning

Since the project effects remain unachieved, this evaluation analyzed the appropriateness of the project plan by assessing the performance of the logic model (a model to show causal relationship among input, output, outcome, and impact). The result of the analysis was taken into account in the judgement of relevance and also utilized for drawing lessons.

The target area suffers from severe water shortages during summer season. The outcome of attaining a stable supply of municipal water would contribute to the project impact which is improvement of living standards among residents. Therefore the logical link from outcome leading to the impact of the project is appropriate. The benefit on residents is also observed from the result of beneficiary survey conducted in the region with water supply suggesting that the water drawing labor decreased among residents.

However, the logical link from output to outcome is not observable as output of the the project plan is not sufficient to generate the assumed outcome. Absence of raw water pipelines from the dam to the water intake has resulted in substandard quality of raw water. The municipalities with the water treatment plants need to take countermeasures to reduce turbidity, thus the supply of raw water has not commenced in some areas. The succeeding project plans to construct the necessary output (the raw water pipelines from the dam to the water intakes), has not realised as of the time of ex-post evaluation.

Based on the above arguments, this evaluation pointed out that the output of this project was insufficient for achievement of the assumed outcome. This evaluation also drew a lesson that a project scope should be defined or modified in the project implementation phase by assessing the necessary raw water quality to be achieved under the project scope and users' needs.