

Overview of Ex-post Evaluation Results

JICA conducts ex-post evaluations through external evaluations by external experts and internal evaluations primarily by JICA's overseas offices, to ensure transparency and objectivity of project evaluations. The following presents an overview of the evaluation findings and analytical results from ex-post evaluations conducted in FY2013.

◆ Ex-post evaluation system

JICA has made efforts to develop a common evaluation method for all three schemes of ODA Loan, Grant Aid and Technical Cooperation. In FY2013, ex-post evaluations (76 external evaluations and 50 internal evaluations) were conducted under the same uniform evaluation system as in previous years. In principle, projects costing over one billion yen are subject to external evaluations, by third-party evaluators based on the results of field evaluations to assure the objectivity and transparency of project evaluations. Meanwhile, projects that cost over 200 million yen and under one billion yen are not subject to external evaluation but to internal evaluation conducted by overseas office staff (refer to pp.20-21 for details of the internal evaluation).

◆ Rating system

In the external evaluation process of the ex-post evaluation system, projects are rated in accordance with international standards (i.e. the Five OECD-DAC Evaluation Criteria). Each project is assessed for its relevance, effectiveness/impact, efficiency and sustainability. Based on the results, an overall rating is given 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 a means of indicating the effectiveness of projects, it does not take into account the difficulty of projects or the degree to which JICA has contributed toward their achievement. Thus, it does not reflect all aspects of development projects.

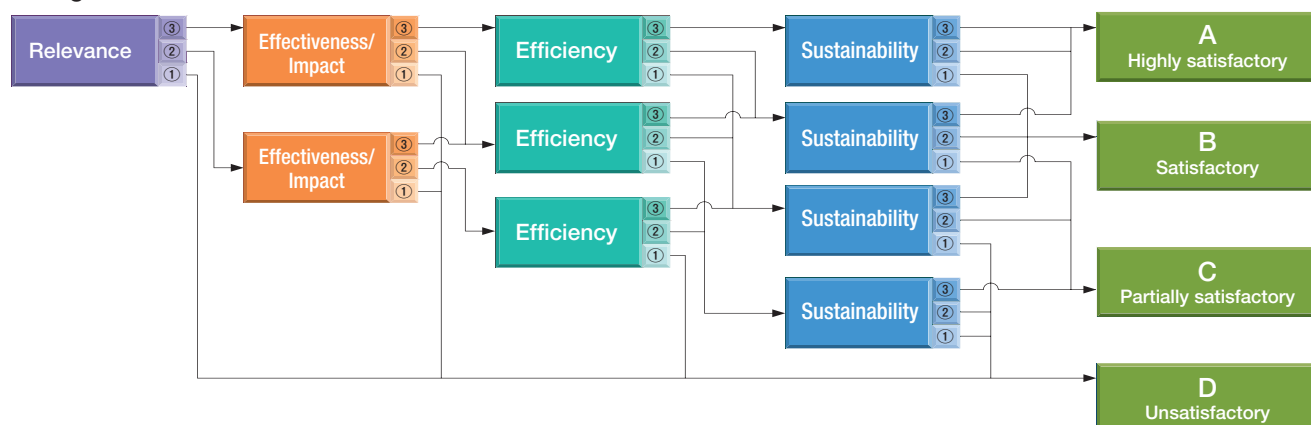
The "Overview of Ex-post Evaluation Results" on the following pages summarizes the results of external evaluations (pp.13-19) and internal evaluations (pp.20-21). Some of the individual external (detailed) evaluations are also outlined on pp.22-41.

Rating criteria and overview of main items examined

Rating criteria and main items examined		Reasoning		
		③	②	①
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 use 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)	Achievement of objectives was limited, 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

With regards to external evaluation, this Chapter first analyzes evaluation results in a cross-sectoral way and compiles the lessons learned from individual evaluations on “Approaches on Project Implementation for Realizing Development Effects”. Subsequently, it analyzes the rating

results of external evaluation and their distribution to identify tendencies for each evaluation criterion. It also compiles some projects cited as having issues in external evaluations. Overviews of some external evaluation results are introduced after p.22.

Cross-Sectoral Analyses: “Approaches on Project Implementation to Realize Development Effects”

JICA, as the sole integrated implementing agency responsible for Japanese Official Development Assistance (ODA), has a vision of “Inclusive and Dynamic Development” and has been assisting developing countries to resolve their issues by utilizing optimum methods out of diverse aid methods. In terms of development assistance provided to developing countries, external evaluations have offered various implications, such as points to be noted in project implementation, trials for enhancing effects and so on. This year’s cross-sectoral analyses extracts factors of these external evaluations which have influenced the effects achieved at various levels and introduce some results obtained.

◆Pilot activity approach to encourage outcomes to take firm roots

In implementing development projects, the approach to work involves developing capacity through pilot activities and assumes that pilot activities could become established to expand development effects within a certain limit of assistance resources. The following examples are introduced to explain certain perspectives considered important as part of ongoing efforts to ensure the effects of pilot activities take root.

“Local Governance and Rural Empowerment Project for Davao Region” in the Philippines (refer to p.28) aims to improve the capacities of personnel to provide water supply services by developing human resources in Local Governments of the Davao Region. Learning and establishment processes on daily concrete duties of the implementing agency such as underground water development and community organization, were incorporated into the technical cooperation resulting in applications by the Implementing Agency after the project’s completion. The lesson learned here was that the effectiveness of any assistance fitting the challenges and needs of the Implementing Agency on daily duties is high.

“Strengthening the Flood Management Function of DPWH” in the Philippines secured opportunities, whereby knowledge learned from a series of processes covering planning, designing, constructing and maintenance management as regards to flood control could be ‘practically used’ within the project. Since the actual utilization of acquired knowledge was confirmed to enable the steady acquisition of skills and techniques, it is indicated that trials of technical cooperation focusing on the ‘learning process’ are effective.

Conversely, Southeast Asian Regional Cooperation on “Animal Diseases Control Project in Thailand and Neighboring Countries (Phase 1) / Regional Cooperation Project for Animal Disease Control among Cambodia, Lao P.D.R., Malaysia, Myanmar, Thailand and Vietnam (Phase 2)” have established networks for wider regional information sharing. According to

the evaluation results, however, pilot activities ceased in many target countries. The reasons were assumed to be inadequacies in budgetary conditions, relevant policies and concrete consideration of exit strategies, which enable the continuation of pilot activities. Based on this, lessons learned suggested that certain points, such as how to utilize the results of pilot activities and share them with other stakeholders, should be clarified before the completion of the cooperation.

In addition, “the Project for Capacity Development on Non-Revenue Water Control” in Brazil (refer to p.34), aiming to improve non-revenue water control technology of the counterpart agency based on activities in a pilot area, distributed most of the limited resources in technical assistance to the pilot site, resulting in limited inputs for dissemination. Consequently, a scenario to expect expanded outcomes through assistance activities has become less likely. In light of certain targets, it is considered that proper inputs are required at implementing stages and needless to mention, an appropriate plan must be formulated.

These examples suggest the importance of an approach whereby knowledge and skills acquired in the project are practiced in the same project, based on consensus reached during the project implementation period on how to utilize the results after the project completion, when adopting pilot activities expected to take root.

◆Strategic use of resources to solve development issues

To realize developmental effects, inputs from various resources need to be properly combined. To overcome developmental challenges, JICA has assisted by ensuring aid schemes are effectively used. The following examples explain some of the efforts made in coordinating financial and technical cooperation:

The “Rural Secondary Education Expansion Project” in Morocco (refer to p.40) aimed at supporting efforts to narrow disparity between urban and rural areas as well as male and female students, by constructing secondary schools, particularly in areas with higher poverty indicators, to disseminate secondary education in rural areas. In addition to financial cooperation required to construct school buildings, JOCVs were dispatched to target regions as teachers in various subjects, including physical training, science and music. In rural secondary schools with limited learning opportunities, particularly for music, these activities are deemed to have contributed to improving education, as well as wider acknowledgement that school buildings were constructed by Japanese cooperation.

In “the Project for Improvement of Infrastructure and Equipment of Training Schools for Health Personnel” in Mozambique (refer to p.38), targeting the expansion and consolidation of facilities and equipment at national health human resources training institutes, there were some cases where equipment items were not fully utilized immediately on completion of assistance. Subsequently, JICA dispatched a short-term expert to provide continuous support for the usage of equipment. Consequently, an ex-post evaluation confirmed that the equipment items provided had been fully utilized with proper management. The lesson learned here showed that it is highly effective to provide not only training programs and workshops on how to use and maintain equipment during the project implementation but also assistance schemes after the project’s completion.

In “the Project for Improvement Fire Fighting Equipment in Yerevan City” in Armenia, which was intended to strengthen fire control services of Yerevan City by consolidating fire-prevention equipment (vehicles and equipment) as well as instructions on how to operate the equipment, JICA group training regarding disaster prevention before the project commenced served to improve the acceptance environment in the counterpart agency. In addition, further JICA group training in the same field, which was implemented after completing the project, served to further strengthen the fire control educational system as well as realizing the project’s effects and sustainability. The reasons behind this successful collaboration between JICA group training and the project are analyzed and include the following:

- 1) The counterpart agency selected personnel at managerial level and strongly motivated to improve;
- 2) On return from Japan, this former trainee was requested to prepare a concrete action plan based on the training results;
- 3) Sufficient budget was secured to realize this action plan.

As indicated by the previous evaluation results regarding coordination matters of different aid schemes, there are issues to be improved by adjusting implementing timing and periods and objectifying coordination per se is not desirable. Conversely, the above-mentioned examples are considered to have shown strategic utilization of resources to overcome sectorial issues by overlooking sector conditions and entire aid schemes as well as realizing the sustainable effects of individual projects.

◆Risk analyses regarding project implementation schedule and how to respond to delays

To enhance development effects, some examples were introduced to show a pilot activity approach expecting the activity results to take root in the pilot site as well as strategic utilization of resources to solve development issues. As well as enhancing development effects, it is also important for the beneficiary side whether or not a certain service is delivered within the deadline as initially planned. If projects are delayed, benefits which are supposed to be obtained also tend to be delayed, which significantly inhibits the development effects.

In the “Greater Mekong Power Network Development Project” in Laos, delays in planning the consolidation of power transmission lines and constructing a power generation plant caused a decrease in the volume of electricity conveyed into power transmission lines installed by the project. Consequently,

the rate of facility operation of these lines declined below the initial assumption. A lesson learned from this experience suggests that, to ensure effects could be realized for an entire transmission network, it is necessary to confirm the feasibility of implementing related projects and the practical schedule with the implementing agency and donor organizations. This also needs to be followed up after launching the project by requesting that the implementing agency work on power transmission lines at proper timing.

In the “Regional and Provincial Hospital Development Project” of Vietnam, consultant selection was considerably delayed, which meant the actual project implementation period considerably exceeded the planned period. It is suggested that, taking into account the procurement procedures in the borrowing country at the time of appraisal, a practical schedule for project implementation should be planned. In addition, countermeasures should be secured to respond to risks, in case when the counterpart government is not familiarized with procurement procedures as stipulated in the ODA Loan agreement, which might result in delays.

In the “Inland Higher Education Project (Regional Vitalization, Market Economy Reform Support, and Environmental Conservation) (Heilongjiang Province)” in China, complicated procurement procedures ended up delaying the project schedule. However, the implementing agency learned a lesson from the previous human resource development projects; opting to shift from the initial plan to procure equipment by type for an entire ministry to a package approach to procure equipment for each school during the project implementation, to minimize the effects of any delays on each school. Here, the analysis reveals the importance of flexibility to change procurement methods and minimize the effects of delays in facility procurement.

In all cases, the difficulty of resolving project delays is acknowledged and various limitations are expected. However, there is a need to work and realize development effects promptly, by strengthening project monitoring and so on.

◆Way forward

JICA has made efforts to strengthen its management by utilizing lessons learned in the PDCA cycle. As part of this commitment, in this year’s thematic evaluation, processing lessons learned into knowledge, which analyzes and processes relevant information on lessons learned from project evaluation results into “knowledge lessons” with higher practicability and versatility, was implemented to deal with issues in the four fields (refer to p.42). By utilizing the “knowledge lessons” created by this process, project management for the coming period is expected to improve.

In terms of the aforementioned examples, including “Pilot activity approach to encourage outcomes to take firm roots”, “Strategic resource utilization to solve developmental issues” and “Risk analyses regarding project implementation schedule and how to respond to delays”, their applicability must be carefully examined according to circumstances. There seems, however, to be further room for improvement on the effort of JICA.

Analysis of Best Practices Contributing to Women's Economic Empowerment and Basic Capacity Development

JICA has focused on “gender equality and women’s empowerment” as priority issues and incorporated gender perspectives into its projects for years. The ex-post evaluation in fiscal 2013 revealed that the

following three projects had contributed to women’s economic empowerment and basic capacity development by integrating gender perspectives into the project plans.

Bangladesh

The Eastern Bangladesh Rural Infrastructure Development Project, which focused on constructing main rural roads in poor rural areas, hired a total of 1,945 poor women for maintenance in two years, who were tasked with repairing rural roads and foresting slopes. The project also introduced a mechanism whereby part of the wages of the project workers would be deposited into their accounts. An interview survey of the women engaged in the project for five years found that this mechanism had not only enhanced their food and living conditions by increasing their incomes but also built up their self-esteem and motivated them to start their own small businesses. In other words, this income-generating mechanism, which had been effectively applied in rural development projects in Bangladesh since the 1980s, was key to the success of this project. Because both the Bangladeshi and Japanese project implementing organizations recognized the importance of this mechanism and incorporated it into the project plan and because the Bangladeshi organization also had some experience in applying it in practice, the project effectively promoted women’s economic empowerment.

India

The Chhattisgarh Sericulture Project provided facilities, equipment and technical assistance to silk-raising farmers. Sericulture is considered a good job for poor women because it requires minimal investment but can generate relatively high incomes and is careful work. Targeting female farmers, who earned below the poverty line and owned no land, this project created jobs for approximately 3,350 farmers and spinners. In a survey of the female farmers having benefited from the project, almost all respondents (135 of 136) answered that their “social status had improved.” They gave reasons for this, such as the fact that they were able to develop their self-esteem as they supplemented their family income by raising silkworms and that their higher confidence helped them establish an equal relationship with their spouses. This project was found to have boosted the earning capacity of poor women, changing their attitudes and thus improving their social status. This was done by narrowing down the target group to poor female farmers in the project planning stage, formulating an action plan for gender equality and promoting the activities of female self-help groups based on the same.

Morocco

The Rural Secondary Education Expansion Project constructed secondary schools in provincial areas. During the project planning stage, both the Moroccan and Japanese sides recognized the problem of gender disparities in secondary education in Morocco. Based on this shared understanding, the project targeted provinces with (i) low secondary school coverage; (ii) low enrollment rates among 12-to-14-year-olds; and (iii) a low proportion of female students. The ex-post evaluation found that the project had contributed to an increase in the number of female students at secondary schools in provincial areas. In fact, 17,867 out of the 48,105 students who attended the secondary schools constructed under the project were female in the 2013-2014 school year. This was considered due to the fact that the Government of Morocco had started providing meals at school, constructing dormitories for students living outside commuting range and offering scholarships and other support at the same time as the project was undertaken and because women had preferentially benefited from these measures. Aware of the particularly large impact of school dormitories, JICA now integrates dormitory construction into its own projects. (Refer to p.40 for the summary result of external evaluation on this project)

The ex-post evaluations of the above-mentioned three projects elicited lessons on how to make projects more effective by promoting gender equality and women’s empowerment. First, it is essential to devise measures to benefit women as well as men at the project planning stage, e.g. by analyzing data by gender and selecting proper target groups based on the analysis. Secondly, a

common key to the success of these three projects was that the project implementing organizations had recognized the importance of benefiting women from the beginning and shared this awareness with JICA. These two points are also considered important when determining the effectiveness of projects.

Rating of External Evaluations*1 *2

Country	No	Scheme ³	Project name	Page ⁴	Relevance ⁵	Effectiveness ⁵	Efficiency	Sustainability	Overall rating
Armenia	1	G	The Project for Improvement of Fire Fighting Equipment in Yerevan City		③	③	③	③	A
Bangladesh	2	L	Eastern Bangladesh Rural Infrastructure Development Project		③	③	②	②	B
Cambodia	3	T	Capacity Development of Provincial Rural Development in Northern Provinces		③	②	②	②	C
	4	G	The Project for Improvement of Kampong Cham Hospital in Kampong Cham Province		③	③	②	②	B
	5	L	Hunan Province Road Construction Project	26	③	③	②	③	A
	6	L	Jiangxi Urban Flood Control Project		③	③	①	③	B
China	7	L	Inland Higher Education Project (Regional Vitalization, Market Economy Reform Support, and Environmental Conservation) (Xingjian Uygur Autonomous Region)		③	③	②	③	A
	8	L	Inland Higher Education Project (Regional Vitalization, Market Economy Reform Support, and Environmental Conservation) (Jilin Province)		③	③	②	③	A
	9	L	Inland Higher Education Project (Regional Vitalization, Market Economy Reform Support, and Environmental Conservation) (Anhui Province)		③	③	②	③	A
	10	L	Inland Higher Education Project (Regional Vitalization, Market Economy Reform Support, and Environmental Conservation) (Henan Province)		③	③	②	③	A
	11	L	Inland Higher Education Project (Regional Vitalization, Market Economy Reform Support, and Environmental Conservation) (Qinghai Province)		③	③	②	③	A
	12	L	Inland Higher Education Project (Regional Vitalization, Market Economy Reform Support, and Environmental Conservation) (Ningxia Hui Autonomous Region)		③	③	③	③	A
	13	L	Inland Higher Education Project (Regional Vitalization, Market Economy Reform Support, and Environmental Conservation) (Heilongjiang Province)		③	③	②	③	A
	14	L	Shandong Tai'an Pumped Storage Power Station Project		③	②	③	③	A
India	15	L	Chhattisgarh Sericulture Project		③	②	②	②	C
Indonesia	16	L	Depok Depot Construction Project		③	③	②	②	B
	17	L	North Java Corridor Flyover Construction Project		③	③	①	②	C
Lao PDR	18	L	Maritime Education and Training Improvement Project	22	③	②	②	②	C
	19	L	Greater Mekong Power Network Development Project (Lao PDR)	32	③	③	②	②	B
	20	T	The Aquaculture Improvement and Extension Project Phase 2		③	②	③	②	B
Malaysia	21	L	Sewerage Treatment Plant Project		③	③	①	②	C
Mongolia	22	L	Two-Step-Loan Project for Small and Medium-Scaled Enterprises Development and Environmental Protection		②	②	③	②	C
Sri Lanka	23	L	Sri Lanka Tsunami Affected Area Recovery and Takeoff Project		③	③	②	②	B
	24	T	Project for Establishment of Japan - Sri Lanka College of Technology to Strengthen Technical Education and Training in Sri Lanka	24	③	①	②	①	D
	25	T	Capacity Upgrading Project for the National Solid Waste Management Support Center		③	②	③	②	B
	26	T	The Project for Promoting Energy Efficiency Improvement		③	②	②	②	C
	27	G	The Project for Improvement of Anuradhapura Teaching Hospital / The Project for Improvement of Anuradhapura Teaching Hospital (Phase II)		③	③	②	②	B
Thailand	28	L	Transmission System and Substation Development Project (Sixth Stage Phase I)		③	③	②	③	A
The Philippines	29	T	Local Governance and Rural Empowerment Project for Davao Region	28	③	③	②	③	A
	30	T	Capacity Development Project on Water Quality Management		③	②	②	③	B
	31	G	The Project for Improvement of Flood Forecasting and Warning System in the Pampana and Agno River Basins		③	③	②	③	A
	32	T	Strengthening the Flood Management Function of DPWH		③	③	②	②	B
	33	T	Information Technology Human Resource Development Project		③	②	②	②	C
	34	L	Rural Road Network Development Project (Phase III)		③	③	①	②	C
	35	L	Urgent Bridges Construction Project for Rural Development		③	③	①	②	C
	36	L	Central Mindanao Road Project		③	③	②	②	B
	37	L	Arterial Road Links Development Project (V)		③	③	①	②	C
	38	L	Iloilo Flood Control Project (I) (II)		③	③	①	③	B
	39	T	Establishment of Ecological Solid Waste Management System		③	②	③	②	B
Tonga	40	G	The Project for Construction of the Inter-Islands Vessel		③	③	②	②	B
Uzbekistan	41	L	Tashguzar-Kumkurgan New Railway Construction Project		③	③	②	③	A
Vanuatu	42	G	The Project for Improvement of Port Vila Main Wharf		③	③	②	②	B

Country	No	Scheme ³	Project name	Page ⁴	Relevance ⁵	Effectiveness ⁵	Efficiency	Sustainability	Overall rating
Vietnam	43	L	Regional and Provincial Hospital Development Project		③	③	②	③	A
	44	L	Transport Infrastructure Development Project in Hanoi		③	③	①	③	B
	45	L	Central Vietnam Rural Telecommunication Network Project	30	③	③	②	②	B
	46	T	Project for Enhancing Functions of Agricultural Cooperatives		③	②	②	③	B
	47	T	Forest Fire Rehabilitation Project		②	③	②	②	C
	48	G	The Project for Empowerment to the Community Damaged by Forest Fire in Ca Mau Province		②	②	③	②	C
Southeast Asia Region	49	T	Animal Disease Control in Thailand and Neighboring Countries (Phase I) / Regional Cooperation Project for Animal Disease Control among Cambodia, Lao P.D.R., Malaysia, Myanmar, Thailand and Vietnam (Phase 2)		③	②	③	②	B
Brazil	50	T	The Project for Capacity Development on Non-Revenue Water Control	34	③	②	②	③	B
	51	L	Northeast Water Resources Development Project		③	③	①	③	B
Costa Rica	52	L	Pirris Hydroelectric Power Development Project		③	③	①	③	B
El Salvador/ Honduras	53	G	Project for Construction of the Japan-Central America Friendship Bridge	36	③	②	②	②	C
Guiana	54	G	Project for Water Supply in Corriverton (Phase I and Phase II)		③	②	①	③	C
Honduras	55	G	Urgent Water Supply Project in Tegucigalpa		③	②	②	③	B
	56	T	Project for Improvement of Teaching Method in Mathematics (PROMETAM) Phase 1 & 2		③	③	③	②	A
Mexico	57	L	Baja California Water Supply and Sanitation Project		③	③	②	②	B
South America Region	58	T	Project of the Capacity Development for Improvement of Livestock Hygiene in the Southern Part of South America through Regional Technical Cooperation		③	②	③	②	B
Angola	59	G	The Project for Emergency Rehabilitation of Port Facilities at the Port of Lobito and the Port of Namibe		③	③	②	②	B
Brundi	60	G	The Project for Rehabilitation of Public Transportation		③	③	②	②	B
Cameroon	61	G	Project for the Construction of Primary Schools (Phase IV)		③	③	②	②	B
Ethiopia	62	G	Project for Construction of Primary Schools in Oromia Region		②	①	①	②	D
Jordan	63	L	Tourism Sector Development Project		③	①	②	③	D
	64	T	The Project for Strengthening the Capacity of Training Management of Vocational Training Corporation		③	③	②	②	B
Morocco	65	L	Rural Secondary Education Expansion Project	40	③	③	②	③	A
	66	L	Marrakech-Agadir Motorway Construction Project		③	③	②	③	A
Mozambique	67	G	The Project for Construction of Bridges on Rural Roads in Zambezia and Tete Provinces		③	③	②	②	B
	68	G	The Project for Improvement of Infrastructure and Equipment of Training Schools for Health Personnel	38	③	③	②	②	B
Tanzania	69	G	The Project for Zanzibar Urban Water Supply Development (Phase I and II)		③	②	②	②	C
	70	G	The Project for Reinforcement of Transmission and Distribution Facilities in Oyster Bay Substation (Phase I and II)		③	③	②	②	B
Turkey	71	L	Seismic Reinforcement Project for Large Scale Bridges in Istanbul		③	③	②	③	A
	72	T	Project on Strengthening the Program of Expanding Industrial Automation Technologies Department		③	②	②	②	C
Uganda	73	T	The Project for Instructors Training for Vocational Education and Training		③	②	③	②	B
Bulgaria	74	L	Sofia Metro Extension Project		③	③	②	③	A
Romania	75	T	Project on Reduction of Seismic Risk for Buildings and Structures		③	②	②	③	B
	76	L	Road Improvement Project		③	③	①	③	B

*1 ③ : High, ② : Moderate, ① : Low / A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory (→ refer to p.12 for details)

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

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

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

*5 Effectiveness includes evaluation of impact.

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

Explanation of Ratings Distribution

Overall rating

The results of the external evaluations conducted in FY2013 are as listed on p.16. Evaluations were conducted for 76 projects: 38 ODA Loan projects; 18 Grant Aid projects; and 20 Technical Cooperation projects, most of which were carried out in Southeast Asia, East Asia, and Latin America by region and in sectors such as road, higher education, power, port, and water supply and sewerage. The overall ratings of the 76 projects are: 20 projects were rated A (26%); 36 projects were B (48%); 17 projects were C (22%); and 3 projects were D (4%). A and B combined comprise 74% of the total; such projects largely generated results which were expected. Some of the reasons for rating projects C or D include “changes in the environment surrounding the project,” “constraints on the exhibition of effectiveness due to delays in relevant projects” and “problems with the organizational structure of operations, maintenance, and management.”

Criterion-based rating

With regard to **relevance**, 72 projects were rated “③” (95%) and 4 projects were “②” (5%), which meant many were deemed relevant. Issues emerged in some projects although they were aligned with the partner country’s policies and the needs of the entire country. This was due to problems related to the appropriateness of the project design. Problems included, “some problems in selection of target site, etc.” and “insufficient examination of environmental risks.”

Regarding **effectiveness/impact**, 50 projects were rated “③” (66%), 23 projects were “②” (30%), and 3 projects were “①” (4%), so many were deemed as having effectiveness/impacts. Projects deemed to have issues of some kind included: projects which produced outputs, such as facilities, but did not exhibit the initially targeted degree of effectiveness; and projects in which the counterpart government did not adequately continue activities after the project’s completion. The reasons varied by project, e.g. “continuing the initial plan became

difficult due to changes in the environmental surroundings, such as political unrest within a region,” and “measures were not sufficiently taken for the continued delivery of project effects.”

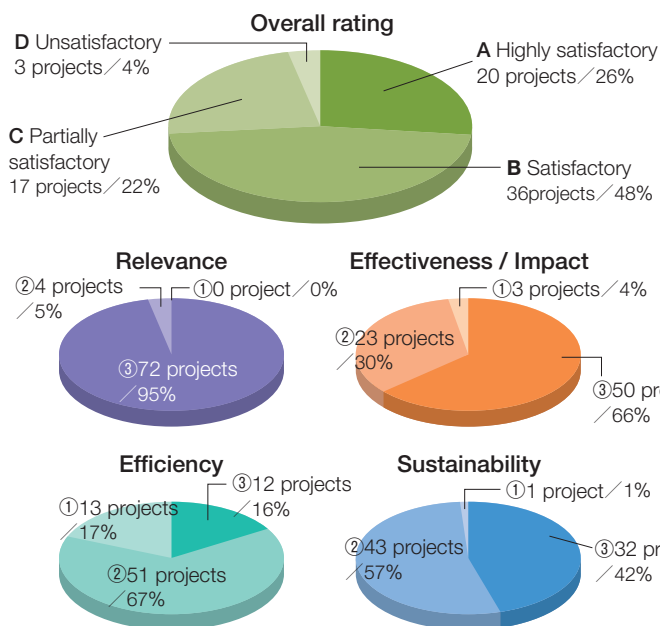
As for **efficiency**, 12 projects were rated “③” (16%), 51 projects were “②” (67%), and 13 projects were “①” (17%). Therefore, the projects were not necessarily efficient. Some projects were deemed to have issues primarily because they could not be completed within the planned period and/or budget. The reasons for these assessments are attributed to “delays in construction and procurement”, “the need for revised design accompanying changes in the plan and the need for additional time for permit procedures”, and “the need for additional investment.”

With regard to **sustainability**, 32 projects were rated “③” (42%), 43 projects were “②” (57%), and 1 project was “①” (1%). Therefore, there is room for improvement. While many factors are involved, such as organizational structural issues, many projects were found to have insufficient funds for operation and maintenance, and continued activities. The reasons for insufficient funds included “insufficient budget allocations from central and local governments for project operation and maintenance” and “inability to cover the costs required for operation and maintenance from fee collection”.

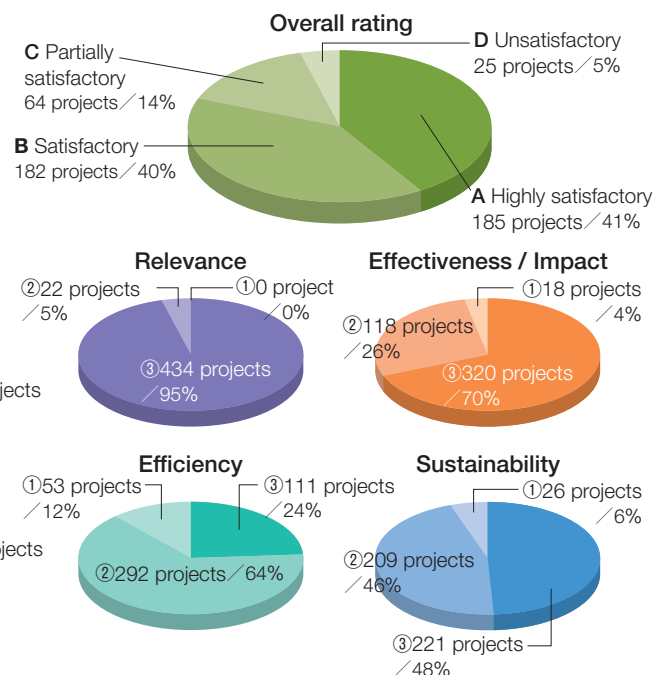
Regarding these issues, individual project evaluations identify the recommendations and lessons learned for JICA and the partner country. As the details are shown in “Cross-sectoral analyses” (refer to pp. 13-14), lessons are identified with regard to the “approach of pilot activities with a view to their outputs being rooted,” “strategic utilization of resources to overcome development issues,” and “risk analysis on project implementation schedule and response to its delay.”

The recommendations and lessons learned will be fed back to the partner country as well as to JICA to steadily improve the evaluated project and future new projects.

<Overall Rating for FY2013 External Evaluation and Distribution of 4 Criteria>



<Totals for FY2009 to FY2013 External Evaluation>



Projects Cited as Having Issues

Sri Lanka

Project for Establishment of Japan - Sri Lanka College of Technology to Strengthen Technical Education and Training in Sri Lanka

◆ Outline of evaluation results and challenges

This project aimed to establish training courses for levels 5 and 6 of the National Vocational Qualifications (NVQ) at the Sri Lanka College of Technology (hereinafter referred to as the “Target School”) to train mid-level technicians and use the experience to develop the managerial and technical capacity of the Department of Technical Education and Training (DTET), a supervisory institution, to establish Technical Colleges in individual provinces. However, the project brought a whole host of problems in its wake, particularly regarding the training delivery at the Target School, due to a delay in establishing the qualification framework, delayed project activities, and a lack of commitment to the project on the part of the DTET. The ex-post evaluation also concluded that the managerial capacity of the DTET had not developed as expected. Although the Target School continued to offer the three training courses introduced by the project, they did not necessarily lead to higher pass rates on the NVQ assessment of levels 5 and 6 as expected, which meant that the project had not sufficiently developed training capacity. This was considered attributable to the shortage of personnel at the DTET and the lack of teaching capacity of instructors at the Target School. The training courses for NVQ levels 5 and 6 were planned to be transferred to University Colleges (UCs), which would be established nationwide, but no detailed plan for transferring the experience and human resources (e.g. instructors) of the Target School had been prepared.

◆ Recommendations and lessons learned

The ex-post evaluation made the following recommendations: (i) to improve the training courses of Technical Colleges and develop the teaching capacity of their instructors to increase the pass rates on NVQ levels 5 and 6 among those having completed the courses; (ii) to effectively transfer the resources of Technical Colleges, including the Target School, to UCs. The evaluation also drew the following lessons from the project: (i) if a project includes activities concerning a new qualification system that has yet to be established, it is essential to devise measures to be taken in the case of a delay in introducing the system and narrow down and focus on specific issues to ensure the steady implementation of the project; and (ii) if a project aims to develop training courses at higher levels than those existing, it should establish a framework and mechanism via which the partner country can continuously develop the teaching capacity of instructors by the end of the project period.

◆ Measures to be taken by the project management department

Recognizing that vocational and technical training institutes and their supervisory authorities should cooperate closely in establishing training systems and developing the teaching capacity of instructors, JICA is providing training for both organizations to enhance their managerial capacity for vocational education. Moreover, when formulating a project to cover new fields or develop higher level training courses, JICA carefully designs it to help establish a mechanism for continuous capacity-building of instructors in the partner country. (Refer to p.24 for the summary result of external evaluation on this project)

Jordan

Tourism Sector Development Project

◆ Outline of evaluation results and challenges

This project aimed to develop tourism infrastructure in Amman and other cities and thereby boost tourist numbers and the inflow of foreign currency and help promote the tourism industry.

The evaluation results found that the number of tourists who had visited the tourist facilities developed under this project and their surrounding facilities had not reached the original target, in part because certain facilities had not yet been launched. The reasons identified by the evaluation study included political instability in neighboring countries; a lack of promotional campaigns; a shortage of parking lots, etc.; and unfeasible project targets. Although the project had produced certain impacts, such as enhancing educational opportunities at museums and promoting nature conservation activities in the Dead Sea, the evaluation pointed out that its impact had been extremely limited (for example, the average stay of tourists had hardly increased).

◆ Recommendations and lessons learned

Several recommendations were made based on the evaluation, including (i) the need to start optimally exploiting all facilities as soon as possible; (ii) making better use of completed facilities; and (iii) constructing car parks. The evaluation also drew lessons from the project: (i) to maintain the implementation system after the completion of a project; (ii) to set proper targets (e.g. in terms of the target number of tourists) and conduct tourism promotion campaigns.

◆ Measures to be taken by the project management department

JICA will further encourage and advise the Government of Jordan to capitalize on all completed facilities. Moreover, JICA is planning to enhance the effectiveness of tourism campaigns by adopting a region-wide approach, involving neighboring countries, for which it is also implementing tourism projects.

Ethiopia

Project for Construction of Primary Schools in Oromia Region

◆ Outline of evaluation results and challenges

This project aimed to extend and construct elementary school facilities and thereby improve access to primary education in Oromia Region. The evaluation results found that the number of enrollments had increased by only 2,673 persons, far below the original target of 17,400 persons. Several reasons were identified for this, such as (i) the actual output falling far below the target of the original project plan; (ii) problems with the project design (e.g. the selection of target schools and the assessment of local needs at the project planning stage); and (iii) new construction and extension of other schools in the vicinity of the project area. Conversely, the evaluation indicated that the clean and bright classrooms, well-equipped libraries and teaching material rooms developed by the project had enhanced students' motivation to learn and also boosted the teaching practices of teachers. From a maintenance perspective, there was a budget shortfall, despite the need to repair some facilities and equipment.

◆ Recommendations and lessons learned

Recommendations were made for the target schools to ensure daily maintenance and cleaning, and for the project implementing organization to secure a budget for maintaining facilities and hiring and retaining teachers. The lessons learned from the project include (i) the importance of assessing needs and setting proper indicators for evaluation at the project planning stage and (ii) the need for more precise project planning.

◆ Measures to be taken by the project management department

After the ex-post evaluation, JICA confirmed the status quo that the target schools were properly used. JICA will further encourage the Ethiopian project implementing organizations to engage in daily maintenance. As far as this project is concerned, there were compelling reasons why fewer facilities were built than originally planned, such as a sudden price rise. Still, JICA has learned lessons from it and improved the Community Empowerment Grant Aid scheme to increase planning precision and ensure appropriate indicators are set.

Overview of Internal Ex-post Evaluation Results

◆ About Internal Ex-Post Evaluations

Since FY2010, JICA has been conducting internal evaluations of projects over 200 million yen and below 1 billion yen, whereby overseas offices act as evaluators, assisted by the evaluation department. With internal evaluations, evaluators of overseas offices conduct evaluations by carrying out interviews with the implementing agency and project site inspections. This fiscal year, 50 internal evaluations were conducted, including some carried over from the previous year.

◆ Overall evaluation

Internal ex-post evaluations were conducted for 50 projects: 23 Grant Aid projects and 27 Technical Cooperation projects. The scope was worldwide, with many projects in Southeast Asia, Central and South America, Africa and elsewhere. The projects covered a wide range of sectors, including health, water resources and disaster management, agricultural and rural development, etc. The overall evaluation of the 50 projects indicates that over half the projects delivered the expected result at the time of ex-post evaluation.

◆ Evaluation by criterion

Evaluation results by criterion show that in terms of **relevance**, there is no specific problem observed from all the projects and they were consistent with the policies of the project-targeted countries in meeting their needs.

Regarding **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.

For some grant aid projects, it is observed that changes in demand and problems with maintenance and management resulted in the underutilization of equipment and facilities. It is also observed that delays in partner countries' portions hindered the planned effects.

For some technical cooperation projects, it is noted that (1) while the project purpose was achieved, the overall goal was not achieved at the time of ex-post evaluation and (2) the project purpose and overall goal were both not achieved as planned, although the projects produced certain effects.

Under circumstances whereby "while the project purpose was achieved, the overall goal was not achieved at the time of ex-post evaluation," it was confirmed that (1) some projects' effects achieved during the project were not sustained after the project completion (reason: reduction in budget/staff strength of the implementing organization, trouble with equipment, etc.) and (2) while the projects' effects achieved during the project were sustained, the overall goal remained unachieved (reason: the projects' goal was yet to be achieved at the time of ex-post evaluation, despite improvement having been observed, the logical linkage between the project purpose and the overall goal is weak, meaning achieving the project purpose did not elicit the achievement of the overall goal, lack of budget to execute plans, etc.).

Besides, there were some cases observed whereby the lack of information on indicators meant overall goal achievement could not be confirmed. Moreover, due to the weak logical linkage between the project purpose and the overall goal, it was not possible to determine whether implementing the project had helped achieve the overall goal.

As for **efficiency**, approximately 30% of the projects were completed within the planned period and cost while the remaining 70% or so exceeded the period and/or cost upon completion. In case of grant aid projects, delays in equipment procurement, facility construction and customs clearance 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.

Concerning **sustainability**, more than 70% of the projects were identified as having some challenges, of which more than 70% were identified as having insufficient sustainability in financial terms, such as budgetary measures of implementing organizations. Some projects also encountered challenges including inadequate organizational structures and skills, as well as operation, maintenance and management, inadequate assignment of appropriate personnel, lack of technical capabilities and routine inspections and repairs.

◆ Future efforts

The challenges identified in each project are relayed to recipient countries and relevant JICA departments as concrete recommendations, which are then used to facilitate improvements. Furthermore, through internal evaluation activities, overseas offices have gained a number of lessons to develop and monitor projects, which are also relayed to the relevant JICA departments, to be utilized for planning and monitoring of similar projects.

In implementing internal evaluations, JICA was mindful of utilizing quantitative indicators to increase objectivity. As well as ensuring the clarity of the evaluation result by increasing objectivity, JICA will examine more efficient evaluation approaches and continue to enhance the evaluation capacity of overseas offices while exploring means of further improvement, including the content and method of the assistance provided by the evaluation department.

Effective lessons**[Republic of Uzbekistan]****The Project for Improvement of
Equipment for National Center of
Rehabilitation and Prosthesis of Invalids**

The internal ex-post evaluation confirmed that the maintenance and management method introduced in this Grant Aid project was continuously adopted and contributed to the sustainability of the project. Before the project started, Japan Overseas Cooperation Volunteers (JOCVs) introduced a methodology utilizing a ledger to record maintenance and management of equipment to the “State Scientific Center for Emergency Medical Services” in Uzbekistan, known as an “Equipment Use and Maintenance Passport.” This methodology was subsequently used continuously and standardized in said medical institutions after the Volunteers’ return to Japan. This was the background against which the project introduced the methodology to the targeting facility. The soft component of Grand Aid involves providing the minimum technical assistance required to facilitate the utilization of improved facility/equipment and the projects’ effects achieved during the project are sustained. These ex-post evaluation results suggest the importance of the following points to ensure sustainability effectively with limited input: (1) conduct the survey appropriately to determine the current maintenance and management method adopted in the target country and (2) in case a maintenance and management method functions, the methodology is considered to be the most applicable for the country, which means it should be utilized to provide soft components.



Laos
Field Survey of the Development of the Faculty of Economics and
Management of National University

Republic of Indonesia

Maritime Education and Training Improvement Project

Contributing develop human resources of Indonesian seafarers equipped with international standard qualifications

External Evaluator: Keishi Miyazaki, OPMAC Corporation

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

Project Description

- Loan amount / Disbursed amount: 7.669 billion yen / 5.75 billion yen
- Loan agreement: December 2001
- Terms and conditions (Loans): Interest 0.75%, Repayment 40 years (Grace Period: 10 years)
- Final disbursement date: June 2011
- Implementing Agency: Ministry of Transport, Transport Human Resources Development Agency

Project Objectives

● Overall Goal

To help ensure employment opportunities for Indonesian seafarers and enhancing their opportunities to obtain foreign currencies

● Project Purpose

To develop seafarers with international qualifications as required by the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers amended in 1995 (STCW 95*1).

● Output

The project consists of constructing educational facilities, installing equipment and improving seafarer education and training programs at six national maritime educational institutes*2, in accordance with the International Treaty (STCW 95).

*1 The STCW Treaty (the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers), ratified by the International Maritime Organization (IMO) in 1978, has stipulated the minimum technological and capable conditions with which seafarers shall be equipped to prevent maritime accidents as well as internationally unified standards regarding supervision of a ratified country's government toward seafarer education organizations and the issuance of certifications, etc. A comprehensive amendment was made to cover training conditions and qualification standards, etc in 1995, which is referred to as STCW 95.

*2 Merchant Marine College (BP3IP), Maritime Higher Education and Training Institute Jakarta (STIP Jakarta), Merchant Marine Polytechnics Semarang (PIP Semarang), Merchant Marine Polytechnics Makassar (PIP Makassar), Merchant Marine Polytechnics Surabaya (PIP Surabaya) (PIP Surabaya was upgraded from Merchant Marine School in 2013), and Merchant Marine School, Barombong (BP2IP Barombong)



Maneuvering Simulator



GMDSS Simulator (Existing machine-type)



Engine Room Simulator Loaded on Board

Effects of Project Implementation (Effectiveness, Impact)

The project provided six national education and training organizations for seafarers with both soft- and hard-type assistance, including introducing high-level training equipment such as radars/ARPA (automatic radar plotting aid) simulators, maneuvering simulators, engine room simulators etc., as well as enhancing educational facilities for practical training utilizing simulators. The assistance covered the establishment of new educational programs utilizing the simulators in accordance with the IMO*3 Model Course, as well as developing the capacity of trainers through training sessions regarding operational techniques of simulators, instruction methods, and maintenance technologies and so on. Through these activities, all the target numbers assumed at the time of planning, including "the number of students who received seafarer educational training in line with the STCW 95" as well as "the number of graduates responding to the STCW 95", were accomplished. In addition, based on the results of beneficiary surveys conducted on students, instructors, and ship companies as well as stakeholders at the target six schools, certain effects were confirmed, such as improved educational levels at target schools, including enhanced capacity of instructors and students as well as enhanced educational programs, thanks to the implementation of seafarer educational training programs in accordance with requirements of the STCW 95 at the target six schools.

However, the annual operation hours of major simulators of the project have not yet met the target for the following reasons: (1) the operation of some simulators has been suspended due to breakdown and malfunction, (2) there were changes in the operation hours of

equipment according to modifications of training curricula and increases/ decreases in the number of students, and (3) some schools reduced the utilization of project equipment because the transfer of ownership of the project equipment had not been completed. In this regard, each school has made efforts to fulfill the required hours for practical training based on the annual training curriculum by utilizing a combination of the project equipment and similar types of other equipment introduced with the assistance of other donors. It was confirmed that the project has positive impacts to some extent on ensuring employment opportunities for Indonesian seafarers, improving the safety of marine transport, and enhancing their opportunities to obtain foreign currencies. On the other hand, as some simulators introduced by the project have not been operated sufficiently, it is considered that other factors rather than this project contributed to the realization of the above positive impacts as well. Therefore, the effectiveness and impact of the project are fair.

Relevance

In Indonesia, where the maritime industry has been active and many seafarers have emerged, there is an urgent need to respond properly to amendments of the international convention (STCW) as well as continuously improve and enhance the country's seafarer certification system and seafarers' education to meet international standards. In this regard, the project's relevance is considered high, since it was prioritized to a greater extent in Indonesian developmental policy; both at the time of appraisal and ex-post evaluation.

*3 As a curriculum of seafarers' practical education and training meeting with the requirements of the STCW, IMO sets 35 model courses. Before the project was commenced, there were only 16 model courses set for seafarer education in Indonesia. After proposing the implementing agencies for development of new 19 courses following the IMO model course as well as improvement of existing 16 courses, the project was adopted by the agencies.

The number of graduates who passed seafarer certification examinations in accordance with the STCW 95

(Unit: Number of persons)

Type of Certificate	Base line (2000)	Target (Project Completion)	Actual		
			2011 (Project Completion)	2012 (1 year after Project Completion)	2013 (2 years after Project Completion)
Deck Department					
1. Deck Officer Class-I	62	240	393	544	542
2. Deck Officer Class-II	234	474	629	782	594
3. Deck Officer Class-III	1,141	1,462	1,215	1,612	1,696
4. Deck Officer Class-IV	164	330	678	874	704
5. Deck Officer Class-V	197	360	1,808	3,053	3,877
6. Deck Rating	60	540	2,219	3,904	4,084
7. Deck Watch Rating	240	1,380	1,519	1,074	731
Engine Department					
8. Engineer Officer Class-I	33	240	352	447	439
9. Engineer Officer Class-II	194	390	546	704	661
10. Engineer Officer Class-III	1,070	1,337	1,232	1,579	1,627
11. Engineer Officer Class-IV	150	300	616	747	682
12. Engineer Officer Class-V	155	360	1,267	1,987	2,592
13. Engine Rating	60	540	2,030	2,039	2,233
14. Engine Watch Rating	240	1,380	1,035	580	469
Total	4,000	9,333	15,539	19,926	20,931

Efficiency

Although the project's cost was within the planned cost, the project's period exceeded the plan. Therefore, the project's efficiency is considered fair. The project period was extended for some reasons, mainly due to delayed procurement procedures, design reviews and changes due to the varying quantity of training equipment and target schools where such equipment is housed.

Sustainability

The sustainability of effects realized by the project is evaluated as fair for the following reasons:

- (1) Technical problems: Levels of usage of knowledge, technology and manuals regarding maintenance management by instructors and technicians are not balanced across all schools;
- (2) Financial problems: The Government's maintenance management budget cannot be utilized due to the delay in transferring equipment ownership from the Implementing Agency to the target six schools;
- (3) Another problem: The usage of some equipment has been halted in each school due to UPS flaws and software defects.

Conclusion, Lessons Learned and Recommendations

In light of the above, the project is evaluated to be partially satisfactory. Implementing the project allowed the target six schools to offer seafarer educational training in accordance with the requirements of the STCW 95 and certain improvements in educational levels were confirmed. Meanwhile, some of the training equipment items introduced by the project have not been fully utilized due to flaws and defects, which is considered a challenge. In addition, some institutional problems inside the Implementing Agency, such as limited operational and maintenance

Key Points of Evaluation

Sharing best practices through ex-post evaluation - Contributing to enhancement of maintenance management capacity -

Among the target six schools, BP3IP received the largest number of training equipment items, and seventy percent of the major training equipment in BP3IP was introduced by the project. At the time of ex-post evaluation, all the equipment items were functioning without problems and the University's capabilities in equipment operation and maintenance management were the highest compared to the other five schools (the shares of equipment introduced by the project varied from 10 to 30%).

The reasons included the following:

- (1) The University has more engineers with higher capabilities than other schools do (especially, there are engineers equipped with IT technology and knowledge capable of dealing with software defects as one of the main troubles regarding equipment flaws);
- (2) The University has properly managed equipment maintenance management following maintenance manuals and fixed procedures;
- (3) The University has provided instructors and engineers in charge of maintenance management with many opportunities for information sharing and mutual learning;
- (4) The University has comparatively affluent self-budgets to be used for maintenance management;

The number of students who graduated from seafarer certification educational training programs in accordance with the STCW 95

(Unit: Number of persons)

Type of Certificate	Base line (2000)	Target (Project Completion)	Actual		
			2011 (Project Completion)	2012 (1 year after Project Completion)	2013 (2 years after Project Completion)
Deck Department					
1. Deck Officer Class-I	41	238	339	470	572
2. Deck Officer Class-II	223	473	574	710	659
3. Deck Officer Class-III	1,141	1,462	1,198	1,606	1,847
4. Deck Officer Class-IV	164	330	758	975	786
5. Deck Officer Class-V	192	359	1,385	2,920	3,571
6. Deck Rating	55	538	2,219	3,904	4,063
7. Deck Watch Rating	240	1,380	1,536	1,072	746
Engine Department					
8. Engineer Officer Class-I	26	239	320	416	466
9. Engineer Officer Class-II	194	390	471	776	702
10. Engineer Officer Class-III	1,070	1,337	1,226	1,587	1,609
11. Engineer Officer Class-IV	150	300	659	853	746
12. Engineer Officer Class-V	153	359	1,038	1,940	2,421
13. Engine Rating	59	538	1,206	2,039	2,233
14. Engine Watch Rating	240	1,380	939	565	474
Total	3,948	9,323	13,868	19,833	20,895

management budget accompanying a delay in the transfer of equipment ownership from the Implementing Agency to the target six schools, were pointed out.

As a lesson to be learned, where the implementing agency differs from the operational/maintenance management organization for facilities and equipment, it is considered important for JICA to confirm whether or not legal and institutional procedures are needed, including the transfer of ownership at the time of appraisal and to encourage both the implementing agency and operational/maintenance management organization to promptly take necessary procedures on completion of any project.

The following recommendation are proposed:

- (1) Transport Human Resources Development Agency should promptly take due procedures regarding the transfer of equipment ownership to the target six schools;
- (2) BP3IP, which is considered to have the best equipment operation and maintenance management capabilities among the six target schools, should actively share its experience and expertise with other schools, to raise the standard of all schools' capacities in terms of operation and maintenance management;
- (3) The target six schools should promptly consider their maintenance management plans after the guarantee periods by training equipment manufacturers;
- (4) The target six schools should consider the utilization of service work revenues available to the schools as complementary budgetary sources in case of budgetary shortage;
- (5) The target six schools should collect and manage relevant data concerning students' destinations at the time of their graduation at least, to confirm and improve their capabilities and levels in seafarer education.

(5) The University has a comparative geographical advantage as it is located in Jakarta, with ease of access to private service providers when repair and spare parts are requested from the same.

In contrast, the other five schools have suffered from a lack of the abovementioned five advantages.

Since the aforementioned trials and experiences of BP3IP were considered good practices for other schools in enhancing their operational and maintenance management capacities, the ex-post evaluation of the project, during the second round of field surveys, conducted a workshop targeting responsible personnel for maintenance management at the Implementing Agency and the six schools, where BP3IP was requested to make presentations on their trials and experiences regarding maintenance management to share information with stakeholders. Equipment manufacturers and local agencies were also invited to this workshop, to make a platform for discussions over the maintenance management plans on completion of maker guarantee periods. After this workshop, some of the target schools dispatched their instructors and engineers to BP3IP and initiated consultations with manufacturers and local agencies concerning their future plans for maintenance management. These concrete positive steps taken to enhance their capabilities in maintenance management will consolidate the prospects for further improvements in the coming period.

Democratic Socialist Republic of Sri Lanka

Project for Establishment of Japan - Sri Lanka College of Technology to Strengthen Technical Education and Training in Sri Lanka

A delay in establishing the framework of a new qualification system affected the project

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

Rating		
Effectiveness and Impact	①	Overall D
Relevance	③	
Efficiency	②	
Sustainability	①	

Project Outline

- Total cost (Japanese side): 707 million yen
- Period of cooperation: July 2005 – June 2010
- Implementing agency: Ministry of Vocational and Technical Training (current Ministry of Youth Affairs and Skills Development)
- The number of experts dispatched: Long Term: 8; Short Term: 18
- The number of technical training participants: Japan: 24; Third-country: 5
- Main equipment provided: Machinery and equipment for training (computer related equipment, component processing and control machinery for practical training and cutting, welding and testing machinery)

Project Objectives

● Overall Goal*

Quality of the manpower trained in Technical Colleges / College of Technologies (CoTs) meets the labor market demand.

CoTs are established and managed by utilizing the lessons and experience of SLCoT.

● Project Purpose

Department of Technical Education and Training (DTET) gains managerial and technical capacity to establish CoTs in each province by introducing model courses of National Vocational Qualification (NVQ) levels 5 and 6 in SLCoT to train mid-level technicians.

● Output

- 1) NVQ levels 5 and 6 model training courses are introduced and conducted effectively in SLCoT in the fields of information and communication technology (ICT), mechatronics and metalwork.
- 2) DTET establishes a system for the training courses to meet industry's needs.
- 3) Management DTET capacity for training delivery of the NVQ level 5 and 6 courses and for implementing career guidance / counseling and textbook development and skills competitions is improved.
- 4) Know-how in fields of implementing NVQ level 5 and 6 courses, industry collaboration, career guidance / counseling and skills competitions is accumulated in DTET by establishing three model courses in SLCoT to share it with other Technical Colleges / CoTs.

* The overall goal, project purpose and outputs are those in PDM version four of the project. Although the PDM was revised to version five after the terminal evaluation of the project, the external evaluator decided to conduct the ex-post evaluation based on PDM version four, following an examination of the process and appropriateness of the modification from PDM version four to five. The terminal evaluation was conducted based on PDM version four, hence the basis for evaluating the terminal and ex-post evaluations is the same.



Sri Lanka College of Technology (SLCoT)



Training in the Metalwork Course at SLCoT



Carrier Guidance Center in SLCoT

Effects of Project Implementation (Effectiveness, Impact)

The project expected DTET, the supervising institution of SLCoT, to gain the necessary capacity in the future operation and management of all CoTs nationwide by participating in activities involving the introduction of model training courses for NVQ levels 5 and 6 at SLCoT.

On completion of the project, enhancement of the operational and managerial DTET capacity through participation in SLCoT activities, had not been realized, which meant the project purpose had not been achieved. This was mainly because; SLCoT had just produced the first batch of graduates and was not in a position to address the issues concerning the training delivery and help enhance the operational and managerial DTET capacity; participation of DTET in the project was inadequate due to chronic staff shortages and a lack of commitment of the then directors and the project team was unable to show strong leadership to promote efforts to boost the DTET capacity as long-term JICA experts were not dispatched as planned. The project did not contribute adequately to creating a workforce with NVQ level 5 and 6 qualifications, which was targeted as the overall goal and the managerial and technical DTET capacity for training course delivery did not develop as expected level at the time of the ex-post evaluation, due to chronic staff shortages and inadequate teaching capacity of the instructors. At the time of the ex-post evaluation, there were plans to transfer NVQ level 5 and 6 courses of the CoTs, including SLCoT, to University

Colleges, which will be established nationwide in future.

Therefore the effectiveness and impact of this project is low.

Relevance

Both at the time of planning and completion of the project, enhancement of technical education and training programmes to develop the workforce were important tasks in the mid- and long-term development plan of Sri Lanka and there was a development need in the country to improve technical education and produce a workforce which could meet the demands of industry. These plans and needs were also in line with the strategy of Japanese assistance to Sri Lanka. Accordingly, the relevance of the project is high.

Efficiency

The chief advisor of JICA, JICA long-term experts on ICT and mechatronics were not dispatched as planned; and the level of participation in the project and effort to manage project progress rendered by the Sri Lankan project stakeholders were inadequate. Although the project period was within the plan, the project cost exceeded the plan. Accordingly, the efficiency of the project is fair.

Sustainability

As mentioned in "Effects of Project Implementation", there were plans to transfer NVQ level 5 and 6 courses to University Colleges.

Performance of Students of the Model Courses after Project Completion*

(Unit: person)

Year	2010				2011				2012			
	No of students	Enrolled	Course completed	Passed department exam	Passed NVQ assessment	Enrolled	Course completed	Passed department exam	Passed NVQ assessment	Enrolled	Course completed	Passed department exam
ICT	45	39	17	17 (44%)	20	19	17	17 (89%)	24	22	11	6 (27%)
Mechatronics	24	21	13	7 (33%)	22	21	7	7 (33%)	22	18	9	9 (50%)
Metalwork	17	12	1	1 (8%)	12	9	6	2 (22%)	11	6	0	0 (0%)
Total (%)	86	72 (84%)	31 (43%)	25 (35%)	54	49 (91%)	30 (61%)	26 (53%)	57	46 (81%)	20 (43%)	15 (33%)

Sources: Number of students who enrolled, completed the courses and passed department exam were given by DTET, and the number of students who passed NVQ assessment was given by Tertiary and Vocational Education Commission.

* "Course Completed" are those who completed the course study with the successful attendance rate. Percentages shown in the table indicate as follows: "Course completed": Completed the course study/enrolled x 100, "Passed department exam": Passed DTET exam/completed the course study x 100, "Passed NVQ assessment": Passed assessment of NVQ 5 or 6/completed the course study x 100

Status of Employment of Former Students of the Model Courses (N=113)

(Unit: person)

Items	ICT	Mechatronics	Metalwork	Total
a. Employed (including self-employment)	23	26	19	68
b. Looking for employment	17	3	3	23
c. Not looking for employment due to study, sickness, etc.	16	6	0	22
d. Total (a + b+ c)	56	35	22	113
e. Employment Rate (a/(d-c) x 100)*	58%	90%	86%	75%
f. Engaged in course-related employment	13	23	12	48
g. Percentage of those engaged in course-related employment out of the total employed (f/a x 100)	57%	88%	63%	71%

Source: Beneficiary Survey (telephone interview was conducted in November 2013 targeting all the former students of the model course, of which 113 former students were contacted)

* "e. Employment rate" is the ratio of those who are employed out of the samples excluding those who are not looking for an employment due to study or sickness.

However, since no detailed plan had been prepared for transferring experience of course delivery, human resources, equipment and machinery of SLCoT, there is uncertainty concerning the sustainability of the project effect. In addition, DTET had several problems involved with the operational and technical aspects. Accordingly, the sustainability of the project is low.

Conclusion, Lessons Learned and Recommendations

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

Lessons learned from the project were: (a) if a project is going to conduct activities in accordance with a new system, without awaiting the establishment of its framework, JICA should be aware of the risks posed by a possible delay in establishing the framework and prepare a scenario and measures to be taken in the event of such delay. The project design should be developed after narrowing down proposed activities according to priority, which can be steadily introduced and implemented, taking given time and resources into consideration and (b) a focused and continuous effort to improve the teaching capacity of

instructors should be made when a training course at a higher level than those existing, or with a curriculum that intensively reflects industry needs, is introduced.

Recommendations made to the counterpart organizations included: (a) to develop a specified plan to utilize and transfer resources of CoTs effectively and implement the same according to plan when the training courses of CoTs were transferred to the University Colleges, (b) to analyze reasons for the low pass rate of NVQ assessment of levels 5 and 6 and implement the required remedial measures and (c) to allocate the necessary budget for periodic updates of software in several pieces of equipment for the ICT and mechatronics courses of SLCoT, so that the training always meets market needs.

Recommendations made to JICA included to maintain a regular channel of communication with the relevant institutions in the vocational training sector, such as the Ministry of Youth Affairs and Skills Development, DTET and Asian Development Bank and focus on ensuring effective utilization of the project effects.

Key Points of Evaluation

Common issues and support measures for vocational training.

A comparative study was conducted to determine their features and effects, by taking examples from four technical cooperation projects: "The Project for Instructors Training for Vocational Training" in Uganda, "The Project on Strengthening the Programme of Expanding Automation Technologies Department (SPREAD)" in the Republic of Turkey, "The Project for Strengthening the Capacity of Training Management of Vocational Training Corporation" in Jordan and this project. Consequently, the following matters emerged as important to ensure project effect and sustainability.

(1) When a project is implemented alongside the development of new policies and systems for vocational training, a delay in the development or change in the systems can be a risk factor for the project to achieve its purpose or elicit the expected effects. It is important to conduct an adequate study of the implementation capacity of the government institutions, which are responsible for developing the policies and systems and collect information on the

contents and progress of the policies and systems to be developed.

(2) It is essential to assist the counterpart officers until they are able to operate the training management cycle independently in projects to assist in establishing a cycle, which includes planning, implementing, monitoring, evaluating and improving training courses.

(3) To introduce measures that reflect the needs of industry in training courses, it is important to establish a system that incorporates advice from industry representatives into training courses immediately, rather than just receiving advice from them.

(4) It is important for projects targeting capacity-building of instructors to adequately identify the gaps between the existing capacity of instructors and what is required to conduct training courses and establish a system for the implementing agencies to continuously improve the capacity of instructors using resources available in their own countries, as well as the training sessions in Japan and technical transfers from JICA experts.

People’s Republic of China

Hunan Province Road Construction Project

Realizing a synergetic development effect through the integrated construction of highway and local roads

External Evaluator: Masahiro Oseko, OPMAC Corporation

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

Project Description

- Loan amount / Disbursed amount (Loan): 23 billion yen / 22,948 million yen
- Loan agreement (Loan): March 2002
- Terms and conditions (Loan): Interest Rate: 2.20%, Repayment Period: 30 years (Grace Period: 10 years)
- Final disbursement date (Loan): October 2009
- Executing agency (Loan): Hunan Provincial People’s Government

Project Objectives

- **Overall Goal**
To help boost the quality of life and reduce inland poverty in China.
- **Project Purpose**
To improve accessibility to markets and facilitate regional development in the target area.
- **Output**
Construction of a highway with overall length of 160km between Shaoyang and Huaihua cities and improve a local road (class II) with overall length of 100km between Dongkou County’s Zhushi and Chengbu County in Shaoyang City in Hunan Province in China.



Shaoyang-Huaihua Highway



Zhushi-Chengbu Provincial Road

Effects of Project Implementation (Effectiveness, Impact)

The objectives of the project included to improve accessibility to markets and facilitate regional development, thereby helping enhance the quality of life and reduce inland poverty by newly constructing a highway and improving a local road in Hunan Province in China. Regarding efforts to improve accessibility to markets and stimulate the regional economy, the project has boosted the quality of life and reduced inland poverty by increasing the shipping volume of agricultural products and employment opportunities for road users through increased traffic volume, decreased travel time and fewer traffic accidents.

The construction of the highway and provincial road under the project facilitated the passage of construction materials and equipment to rural areas, which meant that “Datang Huayin Nanshan Wind Farm,” the largest wind power station in Hunan Province, could be built in Nanshan town located along the Zhushi-Chengbu provincial road. The power generated by this firm is supplied not only to local areas but also to the urban areas of Shaoyang City. Developing both a highway and a local road helped achieve synergistic developmental effects in both urban and rural areas.

Roadside stations “Michinoeki” were constructed by the project at two sites of Chengbu and Wugan along the Zhushi-Chengbu provincial road. Adopting the Japanese concept of Michinoeki, they have been used as public facilities for regional development.

This project has thus largely achieved its objectives; hence its effectiveness and impact are high.

Relevance

Under the Chinese government’s development policies, both at the time of project appraisal and the ex-post evaluation, improving the road network has been consistently highlighted as a basic infrastructure

requirement to develop urban and rural areas harmoniously. The development needs for the project were also high against the economic background of low income due to insufficient infrastructure in the target area. Given the consistency with Japan’s ODA policies, the relevance of the project is high.

Efficiency

The project cost was within the budget (88% of the budget) with cost-cutting efforts made by the executing agency. However, the project period exceeded the plan (119% of the planned schedule) due to the prolonged detailed design, which involved detailed investigations, and designs reflecting the need for thorough consideration of environmental, economic and safety aspects. Accordingly, the efficiency of the project is fair.

Sustainability

The “Shaoyang City Highway Administration Bureau” has been responsible for operating and maintaining (O&M) the Shaoyang-Huaihua highway, while the “Road Administration Bureau” of the Shaoyang city government has been responsible for O&M of the Zhushi-Chengbu provincial road. As the Shaoyang City Highway Administration Bureau is a state-owned company, affiliated with the Hunan Province’s Transportation Office, its annual budget is funded by the provincial government. No major problems have been observed in the institutional, technical and financial aspects of the O&M system by these two organizations and roads and their associated facilities have been effectively maintained. Accordingly, the sustainability of the project effect is high.

Conclusion, Lessons Learned and Recommendations

In light of the above, the project is evaluated as highly satisfactory. One lesson learned from this project comes in the form of the

Shaoyang-Huaihua Highway: Average daily traffic volume

(Unit: vehicles/day)

	2000 (Before the project)	Value planned (3 years after the completion)	Actual value		
			2007 (year of project completion)	2010 (3 years after the completion)	2012 (5 years after the completion)
	4,520	12,516	9,162	13,625	15,037
Ratio of Actual to Plan	36%	—	73%	109%	120%

Source: Shaoyang City Highway Administration Bureau

Shaoyang-Huaihua Highway: Average travel time

(Unit: hour)

	2000 (Before the project)	Value planned (3 years after the completion)	Actual value		
			2007 (year of project completion)	2010 (3 years after the completion)	2012 (5 years after the completion)
	6.1	2.1	2.0	2.0	2.0
Ratio of Actual to Plan	290%	—	95%	95%	95%

Source: Shaoyang City Highway Administration Bureau

Zhushi-Chengbu Provincial Road: Average daily traffic volume

(Unit: vehicles/day)

	2000 (Before the project)	Value planned (3 years after the completion)	Actual value		
			2007 (year of project completion)	2010 (3 years after the completion)	2012 (5 years after the completion)
	3,232	7,030	4,399	8,186	7,588
Ratio of Actual to Plan	46%	—	63%	116%	108%

Source: Shaoyang City Road Administration Bureau

Zhushi-Chengbu Provincial Road: Average travel time and speed

(Unit: hour)

	2000 (Before the project)	Value planned (3 years after the completion)	Actual value		
			2007 (year of project completion)	2010 (3 years after the completion)	2012 (5 years after the completion)
	2.4	1.3	1.25	1.3	1.3
Ratio of Actual to Plan	185%	—	96%	100%	100%

Source: Shaoyang City Road Administration Bureau

synergistic developmental effects realized by the integrated construction of a highway and local road. Improving the local road connecting with a highway has allowed local cities and towns to transport their agricultural products and mineral resources to urban areas and attract tourists from such urban centers to their places. Extending and expanding the local road facilitated the passage of construction materials and equipment, which meant a large-scale wind power station could be constructed in a rural area. The power generated by this power station is supplied to urban areas and benefits both urban and rural areas. As for future highway construction projects, it would be preferable to include construction of local roads as far as possible; anticipating synergetic developmental effects in both urban and rural areas, if a single executing

agency is responsible for the entire project or if it is possible to achieve close communication and coordination between the implementing agencies of highway and local road.

Roadside stations constructed under the project, adopting the Japanese concept of Michinoeki, are used as public facilities for regional development. As "Michinoeki" introduced by the project can be evaluated as successful examples, it is recommended that the executing agency fully utilize the facilities by adding functions to provide information about health, hygiene, education and culture and promoting public relations to facilitate extensive publicity in China of successful cases of "Michinoeki."

Key Points of Evaluation**Successful case of Roadside Stations "Michinoeki", a base of local revitalization from Japan**

Roadside stations "Michinoeki" were constructed under the project at two sites of Chengbu and Wugan along the Zhushi-Chengbu provincial road. Adopting the Japanese concept of Michinoeki, they have been used as public facilities for regional development. Agricultural product outlets, a vehicle repair yard, a sports facility, a rest house, an information desk and a first aid station can be found there, while local farmers also bring their vegetable and meat produce to the spacious premises. Many are happy with the facilities, which provide a stable and convenient venue for selling their products.

Visitors are commuters and truck drivers using the provincial road, while a fair number of neighbors also walk to the outlets almost daily. Although shopping is the primary attraction for visitors, others enjoy exercise on the basketball court open to all for free or a nice cup of tea at the rest house.

Chengbu "Michinoeki" is located in the Miao Autonomous County and features Miao's special tea is served in its rest house. A tourist information desk of the Miao Autonomous County is set up, with

brochures and DVDs for attracting tourists are provided there. Waitresses and receptionists of the rest house and information desk are local Miao women. The Roadside Station "Michinoeki" thus boosts the local economy by providing job opportunities. In China, there was a case of a construction project preceding the Michinoeki, which eventually ended up becoming a material storage space since the concept of Michinoeki was not properly introduced and the facility was constructed along the road but far from communities. In comparison, the roadside stations introduced under this project can be considered successful examples. However, as well as markets, Michinoeki are also expected to be facilities providing public services regarding health, hygiene, education and culture to local people. Since the Michinoeki introduced by the project do not quite fill this scope, the executing agency is currently examining what services could be provided with full-scale use of the facilities in mind.



Chengbu "Michinoeki"

Republic of the Philippines

Local Governance and Rural Empowerment Project for Davao Region

Technical cooperation approach which encouraged a transformation of working methods from rule of thumb to means of evidence by measurement

External Evaluator: Maki Tsumagari, IMG Inc.

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

Project Description

- Total cost: 280 million yen
- Period of cooperation: August 2007 ~ July 2010
- Partner country's implementing organizations:
The Davao Integrated Development Program (DIDP)
- The number of experts dispatched:
Short term: 6
- Main equipment provided:
Electric exploration machine, computer, GIS server computer, etc.



Practical training of underground water exploration



Demonstration of water level measurement

Project Objectives

● Overall Goal

Local Government Units (LGU) in Davao Region are able to implement water supply services by an enhance method based on the guideline.

● Project Purpose

Capacities of Local Government Units (LGU) in Davao Region to provide water supply services are improved.

● Output

1. The current conditions of small-scale water supply works are assessed.
2. Human resources regarding underground water exploration are developed.
3. Human resources regarding institutionalization of residents for operation and maintenance management of small-scale water supply facilities are developed.
4. Human resources regarding planning, designing and construction management of small-scale water supply facilities are developed.
5. Implementing procedures on improved water supply services are compiled in a guideline.



Water supply facility installed in LGU, South Davao Region

Effects of Project Implementation (Effectiveness, Impact)

The project implemented human resources development in water supply services by Local Government Units (LGU) in the Davao Region through personnel training for LGU personnel in charge of related duties. The personnel, who used to rely on their experience in facility designs before the project, have shifted to adopt a method to apply distribution network calculation to determine analysis and design optimal water supply facilities under certain conditions after having scientifically measured underground water analyses and the potentials of reserves. According to the beneficiary Survey*, which included a question over how often beneficiaries made reference as part of their duties to the most relevant parts of the database established under the project, which covered relevant information on more than 1,000 water supply facilities in the region, 95% of all beneficiaries answered that they had been using the database to date in various ways. The project also fostered the facilitation capacities of resident organizations responsible for operation, maintenance and management of small-scale water supply facilities in a series of processes, including preparation for their establishment up to technical support after the operation. Based on these experiences, a guideline was compiled to cover the processes of water supply work based on scientific measures and a collaborative system with local residents. At the time of project completion, the project achieved the project purposes to meet all target indicators. According to the beneficiary survey, 92% of beneficiaries answered that

experiences obtained from the project's training had fully satisfied needs in accomplishing their duties up to the time of Ex-Post Evaluation. Since small-scale water supply services have continued to be implemented via this improved method, the project's effectiveness and impacts are considered high.

Relevance

The project, which promoted administrative capacity development by improving water supply services, has remained in accordance with the development policies of the Philippines, with strengthening governmental organizations one of the top priorities. Based on the "Support Package for Peace and Stability in Mindanao", Japan has focused on socioeconomic development of Mindanao with exclusively many national challenges. Thus, the project's relevance is high.

Efficiency

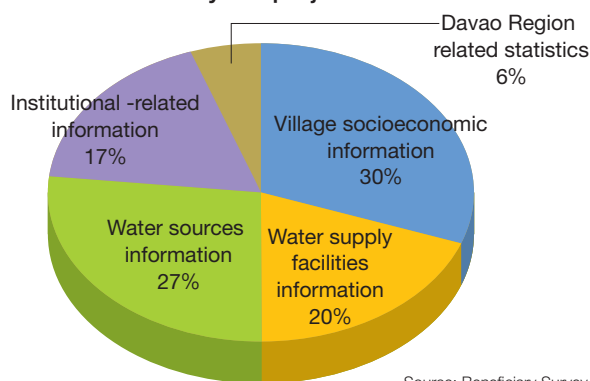
While the cooperation period remained within the planned period, additional activities to respond to human resources development in planning, designing and construction management of small-scale water supply facilities increased the personnel cost for local consultants and NGOs, etc., resulting in cooperation costs exceeding the planned level. Thus, the project's efficiency is considered fair.

Sustainability

Water supply services introduced under the project have been

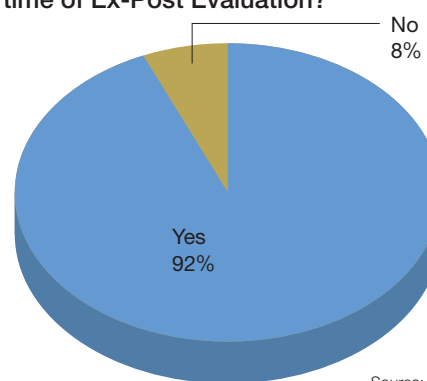
*Among those counterparts who participated in capacity development training course or pilot activity of the project, the survey was conducted to 78 counterparts who were available at the time of the ex-post evaluation for completing questionnaire as well as for an interview to confirm their response to the questionnaire.

Referential rates for database established by the project



Source: Beneficiary Survey

Do experiences with the project meet the needs in accomplishing your duties at the time of Ex-Post Evaluation?



Source: Beneficiary Survey

established as an implementing process for small-scale water supply services work by each LGU. Since there are no concerns confirmed in the policy/system, institutional, technical and financial aspects, the sustainability of effects realized by project is considered high.

Conclusion, Lessons Learned and Recommendations

In light of the above, the project is highly evaluated.

The project will provide referential implications to the results of other projects and activities to be focused on, since it successfully allowed LGU stakeholders to experience outstanding efficiency by providing residents with precise services, eliminating waste and encouraging active participation of LGU stakeholders in project activities. The project made this possible by focusing on and connecting crucial administrative services/development issues with which implementing agencies have been confronted in daily duties along with progressive decentralization into intangible outputs.

The project did not provide its counterparts (C/Ps) with an answer but instead, certain hints on the kinds of differences 'improved methods' had compared to their previous ways, by (1) fostering awareness by comparisons with traditional methods of C/Ps and (2) a technical

support approach to consolidate this learning process by local consultants/NGO who managed efforts to promote the activities in the absence of experts on project sites. This will be a benchmark for even those projects other than local administration projects when considering which implementation methods should be applied.

As a recommendation for the Implementing Agency, it is desirable to enhance the dissemination functions of participating LGUs' experiences and further improve capacities to provide small-scale water supply services as entire participating LGUs. Their main roles to date have included providing relevant information and technology as a technical support hub. However, all the insightful information regarding individual trials by LGUs could be absorbed and compiled as data to be uploaded on the website. In addition, small-scale water supply services may be provided via an improved method, allowing a more efficient and effective response to water supply challenges. By prioritizing areas with less access to safe water for LGU trials, this could directly help improve access rates across the entire region.

Key Points of Evaluation

Implication from the ex-post evaluation result for formulation and implementation of a project for capacity development of LGU

The External Evaluator adopted interdisciplinary analyses on technical cooperation projects, which were often implemented by JICA to target improved public services by strengthening local governance functions, to extract highly referential implications for formulating, planning and implementing projects in similar fields. All the target projects for analyses were implemented to strengthen local government units focusing on areas with many development issues. The goals to equip the projects' C/Ps with the due capacities required to achieve administrative work through practical training programs before the completion of the project were accomplished.

Meanwhile, on completion of the project, differences have emerged in the implementation of newly developed projects. Once the project for Davao Region was completed, it was confirmed that C/Ps themselves autonomously/continuously developed the project's outputs. Here are some factors which were considered to impact on the differences.

- By limiting the target to traditional basic infrastructural duties (small-scale water supply services), the improved method allowing the capacity of service provision to be enhanced as an administrative body was secured, introduced and established.
- By discerning the capacities of stakeholders other than the target personnel, which were needed to achieve the project purposes, these stakeholders were included in the target personnel midway through the project period, creating new activity outputs.
- Learning processes along with daily duties, such as underground water development and resident institutionalization, of C/Ps and their establishments were incorporated into the technical transfer and combined with applications by C/Ps after the project's completion.
- By adding the target personnel required to achieve the purposes mentioned, the implementing processes of water supply services have been formulated across related departments and units, which remained valid up to the time of Ex-Post Evaluation.

Socialist Republic of Viet Nam

Central Vietnam Rural Telecommunication Network Project

Helping improve telecommunication services and eradicate villages with no telecommunication networks within 10 provinces of central Vietnam

External Evaluator: Masami Tomita, Sanshu Engineering Consultant

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

Project Outline

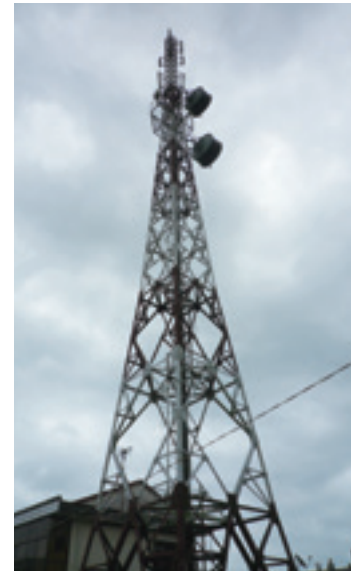
- Loan amount Disbursed amount (Loan): 11,332 million yen / 5,912 million yen
- Loan agreement (Loan): March, 1998
- Terms and conditions (Loan): Interest Rate: 1.8%, Repayment Period: 30 years (Grace Period: 10 years)
- Final disbursement date (Loan): January, 2010
- Executing agency (Loan): Viet Nam Posts and Telecommunications (VNPT)

Project Objective

- **Overall Goal**
To contribute to the reduction of regional disparities and promotion of economic development of central Vietnam
- **Project Purpose**
To improve telecommunication services and eradicate villages with no telecommunication network in 10 provinces in central Vietnam
- **Output**
Construction of telecommunication networks in central Vietnam, which lagged behind economically compared with northern and southern Vietnam



Digital Switching System



Microwave Transmission Tower

Effects of Project Implementation (Effectiveness, Impact)

This project aimed at eradicating villages with no telecommunication networks and improving telecommunication services within ten provinces in central Vietnam, by constructing telecommunication networks, including installing optical fiber cables and digital switching systems in the region.

At the time of project appraisal, in the ten provinces targeted by the project, the number of villages lacking telecommunication networks was over 800 out of approximately 2,000 villages in total, which had significantly decreased to 7 villages at the time of ex-post evaluation. Moreover, telephone density in 10 provinces was 0.64% (actual figure at the time of appraisal, average of 10 provinces, including fixed-line and mobile phones), which was expected to increase to 9.5% in 2010. At the time of ex-post evaluation, fixed-line phone density (actual) increased to 4.15% and mobile phone density (actual) increased to 14.15%*. While the increasing rate of fixed-line phone density is smaller than that of mobile phone density, this is in line with recent global trends showing a declining need for fixed-line phones. Accompanying this trend, the utilization ratio of digital switching systems for fixed-line phones procured and installed under the project has also been decreasing in recent years. Conversely, core transmission lines (optical fiber cables) developed under the project are also used for mobile and Internet communications and thus, it can be said that this project helped improve telecommunication services in the targeted areas by

diffusing fixed-line and mobile phones and the Internet. Furthermore, central Vietnam has seen economic development soar over the past decade and this project is considered to have boosted this economic development to some extent, by improving regional telecommunication services. Therefore its effectiveness and impact are high.

Relevance

The improved telephone density nationwide in Vietnam is emphasized in Vietnam's national plans; both at the time of project appraisal and ex-post evaluation. Moreover, telecommunication networks are needed in project-targeted areas, both at the time of project appraisal and ex-post evaluation and the needs for the project are high. Furthermore, this project was consistent with Japan's ODA policy and its relevance is high.

Efficiency

The actual project cost was much lower than planned due to a cancelation of outside plant (cables), falling prices of telecommunication equipment and exchange rate fluctuation etc. The actual project period was significantly longer than planned due to; 1) the extended period required to obtain the required approvals from relevant domestic organizations for project implementation and delays in other administrative procedures; 2) telecommunication needs in the project-targeted areas changed while the project implementation was prolonged, which required resurvey, redesign and changes of

* While a telecommunication service provider in Vietnam was VNPT only at the time of project appraisal, there were many providers at the time of ex-post evaluation. The telephone density (actual) at the time of ex-post evaluation was calculated by dividing the actual number of VNPT subscribers in the region by its population.

Telephone Density in 10 Provinces

(Unit: %)

Province	Actual (1995)	Estimated (2010)	Actual (2013)	
			Fixed	Mobile
Thanh Hoa	0.32	5.9	4.78	13.29
Nghe An	0.47	8.8	3.84	12.54
Ha Tinh	0.30	6.8	1.90	N/A
Quang Binh	0.48	5.1	4.15	23.06
Quang Tri	1.05	8.3	4.20	19.00
Thua Thien Hue	1.08	18.4	10.17	14.10
Quang Nam	0.59	8.7	2.52	6.49
Quang Ngai	0.71	10.9	3.32	7.47
Binh Dinh	0.75	12.0	3.70	8.60
Phu Yen	0.65	9.7	2.97	22.78
Average	0.64	9.5	4.15	14.15

Source: actual figures in 1995: JICA internal document, actual figures in 2013: answers to the questionnaire

Note: Estimated figures for 2010 = estimated number of VNPT subscribers in each province written in JICA appraisal document / population in each province in 2010 x 100.
Actual figures = actual number of VNPT subscribers in each province / population in each province x 100.

configurations and locations for installing telecommunication equipment; and 3) the extended period required to procure transmission cables accompanying soaring copper prices etc. Although the project cost was within the plan, the project period significantly exceeded the plan and therefore the efficiency of the project is fair.

Sustainability

While no major problem has been observed in the institutional and technical aspects of operation and maintenance (O&M) at the time of ex-post evaluation, the financial situation of VNPT could not be sufficiently verified, as no financial statements were provided. Moreover, reorganization of VNPT is planned in the near future and its influence on future O&M remains somewhat uncertain. Thus, the sustainability of the project is fair.

Conclusion, Lessons Learned and Recommendations

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

The actual project period was 161 months compared with the planned period of 34 months and exceeded the plan (474% against the plan). The ex-post evaluation was conducted 15 years after the loan agreement and while the project aimed to increase the fixed-line phone density at the time of project appraisal, mobile phone communications have prevailed globally in recent years and the utilization ratio of digital switching systems procured under the project was decreasing at the time of ex-post evaluation. As a lesson learned, given the pace of technological innovation in the telecommunication sector, project planning and preparation must take into account the rate of future technological innovation and future income levels in a given country very carefully and be implemented promptly. In addition, during appraisal, there is a need for a detailed check of procurement procedures in the country where the project is going to be implemented, evaluate the implementation capacity of an executing agency and related risks and carefully consider whether the lending scheme as a Japanese ODA loan is suitable for the project.

Key Points of Evaluation

The need to carefully evaluate implementation capacity of an Executing Agency and speed of technological innovation at the time of appraisal

This project is implemented in Vietnam, as one of many Japanese ODA loan projects underway there. Under this project, processes involving selection of consultants, detailed design, selection of contractors and suppliers and construction and installation works were delayed due to the extended period required to obtain the necessary approvals from relevant domestic organizations for project implementation and delays in other administrative procedures. This tendency is not limited to this project, however. An extended period was also often required to coordinate among different organizations and departments in other projects in Vietnam. Moreover, in Japanese ODA loan projects, contractors/suppliers and consultants need to be employed by strictly following the steps stated in "Guidelines for the Employment of Consultants and Procurement under Japanese ODA Loans". However, executing agencies are often unfamiliar with the

procurement procedures stated in the guideline, which often delays the project implementation. Conversely, technological innovation advances swiftly in the telecommunication sector and if a project implementation is overly delayed, it tends to cause problems such as changes in telecommunication needs in the project-targeted areas and technological obsolescence, underlining the need to implement a telecommunication project promptly from project appraisal to completion. Accordingly, it should have been examined more carefully during project appraisal whether the lending scheme as a Japanese ODA loan was appropriate for this project. Therefore, when conducting project appraisals for similar projects in future, there is a need to carefully examine whether a Japanese ODA loan is an appropriate lending scheme for a project based on project components, procurement procedures and customs in a given country and sector and whether an executing agency has sufficient capacity to implement the project efficiently.

Lao People's Democratic Republic Greater Mekong Power Network Development Project (Lao PDR)

Contributing to the regional economic development by achieving stable power supply through interconnecting separated domestic power grids

External Evaluator: Hirofumi Azeta, Japan Economic Research Institute Inc.

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

Project Outline

- Loan amount / Disbursed amount (Loan): 3,326 million yen / 3,326 million yen
- Loan agreement (Loan): March, 2005
- Terms and conditions (Loan): Interest Rate: 0.9%, Repayment Period: 30 years (Grace Period: 10 years)
- Final disbursement date (Loan): January, 2012
- Executing agency (Loan): Electricité du Laos (EDL)

Project Objective

- **Overall Goal**
Contribute to the upgrading of electrification rates, industrial development and poverty reduction in the central and southern region of Laos
- **Project Purpose**
Respond to the growing electric power demand in the central and southern region including Savannakhet, where the East-West Economic Corridor/Road No.9 is located.
- **Output**
Construct 115kV transmission lines between Pakxan and Pakbo (about 300km) and substations.



Transmission lines constructed under the project



Savan - Seno Special Economic Zone where private investors are setting up new factories (Savannakhet province)



A drinking water factory which increased production after the completion of the project (Khammuane province)

Effects of Project Implementation (Effectiveness, Impact)

The objective of the project is to achieve a stable power supply and increase the electrification rate in the central region of Laos by constructing double circuits of 115kV transmission lines between Pakxan, Thakek and Pakbo (about 300km) and substations. By interconnecting the grid in the northern region, including the capital city of Vientiane and the grid in the central region, it was expected that surplus electricity in the northern region could be transmitted to the central region and meet growing demand for electrical power in the central-southern region of Laos.

In the ex-post evaluation, it was confirmed that the indicators set upon appraisal, including the utilization factor of transmission lines, number and time of forced outages, transmission losses and received energy at Pakbo substation, had been achieved. Accordingly, the ex-post evaluation concluded that the project had achieved its objective of increasing the energy transmitted from Pakxan substation to Pakbo substation without increasing the overloads and losses from transmission lines.

In the ex-post evaluation, it was also confirmed that private companies set up new factories and increased their production and employment as a result. In Savannakhet province, the development of the Savan-Seno Special Economic Zone (Zone C) was completed after completion of the project. Several factories which have already started operations answered that their main reason for establishing

factories in the Savan-Seno Special Economic Zone was the stable power supply in Savannakhet province. It is also possible to say that the project has helped improve living standards in the region, as the regional per capita GDP increased and poverty rate declined.

Therefore its effectiveness and impact are high.

Relevance

The project has been relevant to Laos's development plan, which targeted poverty reduction, economic development and industrial development by expanding the domestic electricity transmission grid. It is also highly relevant to the development needs of Laos to meet the growing domestic power demand and to Japan's ODA policy, which emphasized efforts to enhance the transmission network. Therefore its relevance is high.

Efficiency

During the project implementation, the expected outputs, including construction of transmission lines and extension of 115/22kV substations, were achieved as planned within the planned budget, despite some minor modifications. Although the project cost was within the plan, the project period exceeded the plan, mainly because the initial bidding result was cancelled. Accordingly, the efficiency of the project is fair.

Power received at Pakbo substation (GWh)

Items	Target			Actual		
	2009 (1 year after completion)	2010 (2 years after completion)	2011 (3 years after completion)	2011 (Year of completion)	2012 (1 year after completion)	2013 (2 years after completion)
Power received at Pakbo substation	195	201	206	86	165	235

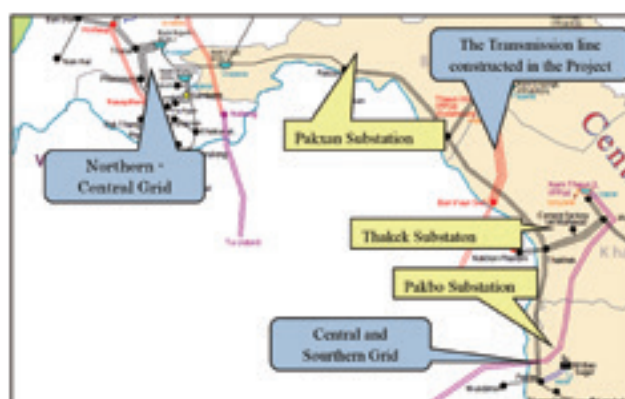
Source: created with reference to the project completion report

Socioeconomic indicator in the central-southern region

		2005	2012
Electrification rate	Khammuane province	59%	83%
	Savannakhet province	57%	79%
Per capita GDP	Khammuane province	USD 428	USD 1,490
	Savannakhet province	USD 525	USD 1,469
Poverty rate	Khammuane province	20%	5%
	Savannakhet province	20%	11%

Source: materials provided by project implementing organization

Transmission network



Sustainability

No major problems have been observed in terms of the institutional and technical aspects of the operation and maintenance system and current operation and maintenance status. However, some problems have been observed in terms of financial aspects of the Executing Agency, as it was unable to meet some of the financial obligations set by the World Bank and Asian Development Bank. Therefore sustainability of the project effects is fair.

Conclusion, Lessons Learned and Recommendations

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

In this project, the utilization factor of the transmission line was low, because of the low power inflow to the transmission line compared to the plan. This is due to the delay in other projects involving transmission line and hydropower plant development, which were supposed to provide electricity to the transmission line

constructed in this project. Accordingly, the lesson learned from the project is the importance of examining the level of achievability of other related projects and whether or not they have realistic implementation schedules, at the time of appraisal, so that the effectiveness of the entire domestic transmission network can be secured.

It is recommended that the Executing Agency improve its inventory management for spare parts and reporting, to be prepared for any sudden serious problems. This is because it might take more than a month to fix sudden problems or failures at substations, as some spare parts have to be purchased overseas. It is also recommended to separate the current training course into distribution and transmission courses, respectively and also managerial and engineer courses, to allow for more needs-oriented courses.

Key Points of Evaluation

Helped reduce electricity imports from neighboring countries

At the time of appraisal, there were four separate electricity transmission grids in Laos, which were not inter-linked. From the electricity transmission grid in the northern and central regions, including the capital city of Vientiane, surplus electricity was exported to Thailand, while the grid in the central-southern region imported electricity from Thailand, given the lack of any power plants supplying electricity to the grid. The terms of trade were not favorable for Laos, because the electricity import price from Thailand exceeded the export price to Thailand.

Even after completion of the project, Laos continued importing electricity, despite the unfavorable conditions*, because the transmission line connections between Laos and Thailand at

Pakxan substation, Thakek substation and Pakbo substation were maintained as before, following the contract between EDL and the Electricity Generating Authority of Thailand (EGAT). In September 2013, EDL started controlling electrical power flow in the domestic transmission grid by cutting or connecting several transmission line connections, in accordance with daily and regional power demand. EDL then started reducing power imports from Thailand by sending the electricity produced in the central-southern region to Thakek substation, where a large amount of electrical power has been imported from Thailand.

* In 2012, the power export price to Thailand was THB 1.6/kWh (peak hours) and THB 1.2/kWh (off-peak hours), while the power import price from Thailand was THB 1.74/kWh (peak hours) and THB 1.34/kWh (off-peak hours).

Federative Republic of Brazil

The Project for Capacity Development on Non-Revenue Water Control

Spreading Japan's high level of non-revenue water control technology throughout the State of Sao Paulo
 ~ Coordination between the technical cooperation project and the Japanese ODA loan project ~

External Evaluators: Yuko Kishino and Noriaki Suzuki, IC Net Limited

Project Outline

- Total cost (Japanese side): 362 million yen
- Period of cooperation: July, 2007 – July, 2010
- Partner country's implementing organizations:
Sanitation Company of the State of Sao Paulo (SABESP)
- The number of experts dispatched: long term: 1; short term: 9
- The number of technical training participants: Japan: 50 persons
- Main equipment provided: Portable electromagnetic / ultrasonic type flow meters, sonic pipe locators, correlative water leak detectors

Project Objective

● Overall Goal

Water supply will be stabilized by reduction of Non-Revenue Water (NRW) in service areas of SABESP.

● Project Purpose

The capacity of SABESP's staff to control NRW is strengthened.

● Output

1. The SABESP staff who are involved in the project understand the significance of NRW control, and the system for the human resources development is strengthened.
2. Fundamental measures for NRW control are strengthened through practice in the pilot areas.
3. Corrective measures for NRW control are strengthened through practice in the pilot areas.
4. Preventive measures for NRW control are strengthened through practice in the pilot areas.

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



Instruction for electromagnetic flow meters (OJT)



Replacement of water service pipes

Effects of Project Implementation (Effectiveness, Impact)

The project was conducted with the aim of developing human resources and creating the systems needed to reduce non-revenue water to achieve a stable water supply in the State of Sao Paulo.

The non-revenue water control plans were carried out in all 15 business units and the Non-Revenue Water Rates of three business units in the pilot areas were considerably reduced following the implementation of the project. This was because the analysis of the System Input Volume progressed and water consumption was measured accurately by the transferred technology, which enabled specific non-revenue water control measures. However, the Non-Revenue Water Rates did not fall below 30%, the project target, in two business units due to delay in replacing the water service pipes and mains.

The technology penetrated within the business units of pilot areas and staff members engaged in non-revenue water control with high-level awareness, remained after completion of the project. Moreover, even at business units outside the pilot areas, it was confirmed that the percentage of those recognizing the importance of reducing the Non-Revenue Water Rate was high, between 80 and 100%. The project triggered a change in the activities of the counterpart and paved the way to establish solid foundations to control non-revenue water, such as allocating a sufficient budget. In particular, the great impact was the fact that national technical accreditation agency took over the training courses developed in the project to control non-revenue water and the

private-sector enterprises involved in non-revenue water control were obliged to undertake certification training. The overall goal of reducing "The Non-Revenue Water Rate in service areas of SABESP to less than 30%" is expected to be achieved if the full-scale training courses starts and large-scale replacement of water service pipes and mains by the Japanese ODA loan project are completed.

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

Relevance

The path set in the plan to achieve the project purpose was insufficient such as dissemination from the pilot area to overall area, and there was some room for improvement. However, in light of the policy objectives for the efficient utilization of water resources, the project purpose was appropriate. In addition, the project was considered highly relevant to the country's development plan and the development needs of Brazil, as well as Japan's ODA policy. Therefore, the project's relevance is high.

Efficiency

Despite the cooperation period remaining as planned, project costs were higher than planned. Although the implementation structure had room for improvement, such as not arranging a proper local coordinator, on-site technical instruction was provided effectively and efficiently. Therefore, the efficiency of the project is fair.

Table: Changes in the Non-Revenue Water Rate at each pilot areas (actuals)

(Unit: %)

Pilot area name	2007 starting year (July – Dec.)	2008 (Jan. – June)	2008 (July – Dec.)	2009 (Jan. – June)	2009 (July – Dec.)	2010 Completion year (Jan. – May)
Jaguará (MO)	46.3	44.6	Not calculated	42.6	39.0	30.9
Vila Baiana (RS)	58.5	62.6	60.2	51.2	44.2	27.9
Jardim das Colinas (RV)	61.2	36.1	32.3	35.4	40.5	37.4

Source: the evaluator's calculation based on materials provided by JICA

Table: Changes in the Non-Revenue Water Rate in SABESP service area (actuals)

(Unit: %)

	2007	2008	2009	2010 (Completion Year)	2011	2012	2013
The whole of SABESP	35.8	34.1	32.4	32.3	32.0	32.1	31.2
The Sao Paulo Metropolitan Region Executive Office	34.6	32.7	31.4	31.9	31.3	31.8	30.8
The Regional Systems Executive Office	39.1	37.9	35.3	33.3	33.9	32.9	32.3

Source: materials provided by SABESP Planning Department

Sustainability

SABESP has a fully equipped business implementation system, including a department for managing non-revenue water and a system for developing private-sector operators. SABESP, the largest sanitation company in Latin America, has good financial standing and is expected to allocate a budget for non-revenue water control hereafter. Therefore, the sustainability of the project is high.

Conclusion, Lessons Learned and Recommendations

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

This project aimed to improve SABESP's overall non-revenue water control technology based on activities in the pilot areas. Conversely, much of the limited resources were allocated to technical support in pilot areas and inputs for dissemination were restricted. Ultimately, this adversely affected the achievement level of the Project Purpose.

Therefore, as a lesson learned, it is recommended that consideration for a reasonable plan be paid when forming a project, such as assigning experts who not only have technical competence but are also proficient

in dissemination activities. For dissemination, consideration should also be given to actively utilizing local resources. Besides, at the start of the project, there were miscommunications between the Japanese and Brazilian sides due to differences in language and culture, which hindered various procedures at the preparatory stage. It is preferable that a person working as both interpreter and local coordinator be assigned at Japan's expense, from the start of the project. Furthermore, in cases where the project target area is vast, to facilitate project operations and strengthen the transfer of technology in local areas, the most appropriate implementation structure should be developed, such as assigning coordinators from among staff members of the implementing agency who are working in each respective area.

Recommendations to the implementing agency include establishing clear standards regarding the definition and calculation of the volume of water for social purposes and promulgating this to all business units. Recommendations concern the promotion of measures to reduce non-revenue water in slums, where few measures are taken.

Key Points of Evaluation

Japan's high level outputs of non-revenue water control technology throughout the State of Sao Paulo

The project developed a training program whereby 13 courses were created under four themes, to ensure staff members of SABESP understood the necessity for non-water revenue control and a reinforced system of human resource development involved in the non-revenue water control. Counterparts developed a training program taking the initiative and leveraging experience and knowledge obtained in business units in the pilot areas. They were also progressively making efforts to revise the training materials, even after the completion of the project. Of special note is the fact that they were officially adopted as the Brazilian Association of Sanitary and Environmental Engineering (ABES) training materials and institutionalized. In other words, it is a prerequisite for private businesses, which intend to engage in non-revenue water control,

to apply for training and receive training from ABES, to pass the examination and obtain a qualification. The private-sector enterprises involved in the Non-Revenue Water Control Project in Sao Paulo State, Japanese ODA loan project, which started in 2012 and aimed to reduce non-water revenue and develop waterworks facilities, were obliged to undertake ABES certification training. It is highly probable that the project outputs will be utilized for engineers' training concerning the non-water revenue control. They are also expected to help reduce the Non-Water Revenue Rate in the State of Sao Paulo. Japan's high level of non-revenue water control technology will spread throughout the State of Sao Paulo, via coordination between the technical cooperation project and the Japanese ODA loan project and this long-standing cooperation would continue to produce results in the years to come.

Republic of El Salvador / Republic of Honduras Construction of the Japan-Central America Friendship Bridge

The the new construction of the Japan-Central America Friendship Bridge has helped improve physical distribution in Central America. However, there is an urgent need to develop border crossing facilities.

External Evaluator: Takeshi Yoshida, Global Group 21 Inc.

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

Project Outline

- Grant limit / Actual Grant amount:
650 million yen to El Salvador
650 million yen to Honduras
Total: 1,300million yen/1,297million yen
- Exchange of notes:
El Salvador: June, 2007,
Honduras: May, 2007
- Project Completion: July, 2009
- Implementing agencies:
El Salvador: Ministry of Public Works, Transport,
Housing and Urban Development (MOPTVDU)
Honduras: Ministry of Infrastructure and Public Services (INSEP)

Project Objective

- Overall Goal
To promote physical distribution, exchange and friendship between El Salvador and Honduras and also among the countries of Central America.
- Project Purpose
To realise smooth transport between El Salvador and Honduras.
- Output
To construct bridge (two lanes, 170m length), access roads, and river protection are constructed in the border between El Salvador and Honduras.



Japan-Central America Friendship Bridge



Rusted truss members of the Old Bridge



Large truck awaiting drug inspection on the New Bridge

Effects of Project Implementation (Effectiveness, Impact)

The project aimed to replace Goascorán Bridge on the border between El Salvador and Honduras with the Japan-Central America Friendship Bridge; possessing sufficient width and loading capacity, aiming to facilitate road traffic between the two countries.

At the time of project planning, it was assumed that on completion of the project, the New Bridge alone would be used, but in reality, border crossing time both for passenger vehicles and cargo vehicles was shortened by utilizing both the New Bridge for cargo transport and the Old Bridge for passenger vehicles at the same time. Because cargo traffic, largely comprising large-size vehicles, now uses the New Bridge, traffic safety has been improved. However, hazards have not entirely been eliminated because the Old Bridge that remains in use by large buses lacks sufficient load capacity due to under-maintenance. Moreover, on the New Bridge, because cargo vehicle congestion due to the border crossing procedure sometimes reaches back to the bridge itself, there is room for improvement as far as the border crossing time is concerned. While the cross border traffic volume has increased since the opening of the New Bridge, it has not reached the planned target figure for two reasons: 1) exchanges between both countries declined following the coup d'état of 2009 in Honduras, and 2) cargo going to and from La Union Port over the bridge has not increased as projected because the port has not yet started full-scale operations. While the number of Honduran people visiting El Salvador has increased, no major

impact on physical distribution has been confirmed.

Based on the above, the project has achieved its objectives to some extent; hence its effectiveness and impact is fair.

Relevance

In the Strategic Transportation Plan of Honduras (2004), the trunk highway network, including the project, was considered one of the future trunk corridors in Central America because of the considerable demand foreseen for these corridors. In the National Development Plan of El Salvador (2002), the development of the eastern area prioritized the development of La Union Port as a key industrial and logistics base as well as that of trunk roads in the area. This project is highly relevant to the development plan and development needs of both El Salvador and Honduras as well as Japan's ODA policy, meaning its relevance is high.

Efficiency

In terms of planned outputs, the construction of the bridge, access roads and river protection by the Japanese side was completed almost as planned. However, although there were plans for both countries to construct border crossing facilities by the time of completion of the Japanese work in July 2009, the border facility development plan remained incomplete during construction of the bridge and access roads. Time was subsequently spent adjusting with the planned border crossing facilities, which delayed the preparations for said facilities and the start of service on the New Bridge. Moreover, political disturbances

Changes of Border Crossing Time (Average Time of Replies by Freight Companies)

(Unit: minutes)

	Immigration	Customs	Quarantine	Border Police (Including Drug Control)
Before project	135	200	100	155
After project	20	25	15	25

Source: Interview results with freight company owners (7 companies in El Salvador and 6 companies in Honduras)

Changes in Cross-Bridge Traffic Volume (Cross-border Traffic Volume)

(Unit: Vehicles/day)

	2006 Actual Values (at time of planning)	2013 Actual Values (4 years after the completion)	Annual Average Rate of Increase
Car	213	374	8.4%
Bus	24	34	5.1%
Sub-Total	237	408	8.1%
Small Truck	209	151	-4.6%
Large Truck	158	26	-23.0%
Trailer	541	757	4.9%
Sub-Total	908	934	0.4%
Total	1,145	1,342	2.3%

Source: The Basic Design Study for 2006 figures (28th February, 2006).The Ex-Post Evaluation Study (Traffic Volume Survey) for 2013 figures (27th November, 2013).

Note: All the vehicles used the Old Bridge in 2006. In 2013, passenger vehicles used the Old Bridge, and cargo vehicles (small and large vehicles and trailers) used the New Bridge.

meant that only temporary border crossing facilities were completed one year after the completion of the New Bridge structure and that the New Bridge went into service in September 2010, no permanent border crossing facilities have yet been constructed.

Therefore the efficiency of the project is fair.

Sustainability

There are no major problems regarding the operation and maintenance of the New Bridge. In contrast, the Old Bridge, which large buses still pass over today, lacks adequate maintenance and thus poses some danger. The FONDVIAL is experiencing limitations for road and bridge maintenance due to insufficient funding. Overall, some minor problems can be observed in financial aspect of operation and maintenance; hence the sustainability of the project effects is fair.

Conclusion, Lessons Learned and Recommendations

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

One lesson is that physically upgrading the border crossing by constructing a new bridge cannot fully achieve the intended effect of smoothing border crossing traffic unless border crossing facilities and a

border crossing system, including customs clearance, are improved at the same time. In the project, the delayed construction of border crossing facilities was one factor behind the delayed opening of the New Bridge, limiting the full achievement of the project effect. Moreover, as the access roads were designed and constructed without a finalized border crossing facility construction plan, limitations were imposed on the subsequent planning of border crossing facilities, further delaying their construction.

This lesson thus illustrates the importance of considering inclusion of border crossing facilities and system into the project scope and examining the project feasibility as a whole, when a border bridge construction project is planned.

As a recommendation, the implementation agency and customs office in each country must urgently implement standardization and boost the efficiency of the border crossing procedure and relevant information system to capitalize on the shorter border crossing time due to the project. Also, both countries' implementation agencies need to secure safety on the Old Bridge by formulating and implementing an appropriate maintenance plan through mutual consultation.

Key Points of Evaluation**Urgent need to develop border crossing facilities and safety measures of old bridge**

Replacing the decrepit Old Bridge with a new cement concrete bridge has guaranteed smooth passage for large trucks and significantly boosted the transportation sector. However the border crossing facilities and systems, which were planned to be established alongside the bridge construction, have not yet been introduced due to past political problems, so the border crossing procedure has yet to be improved. Moreover, because La Union Port in El Salvador

is not yet fully operational, the anticipated impact on cargo transport has not been realized. Concern over safety due to the use of the Old Bridge, which was not originally planned, detracts from the sustainability evaluation. In other words, although the Japanese portion of the project has been effective, circumstances in other portions have adversely affected the overall evaluation.

Republic of Mozambique

The Project for Improvement of Infrastructure and Equipment of Training Schools for Health Personnel

Helping improve education for health personnel in Mozambique from qualitative and quantitative perspectives

External Evaluator: Hisae Takahashi, Ernst & Young Sustainability Co., Ltd.

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

Project Outline

- Grant limit / Actual Grant amount:
1,045 million yen / 973 million yen
- Exchange of notes: July, 2008
- Project Completion: October, 2010
- Implementing agency:
Ministry of Health, Department of Human Resource

Project Objective

- **Overall Goal**
To contribute to the improvement of the healthcare service in Mozambique
- **Project Purpose**
To improve the educational environment and the quality of education at training schools for health personnel in Mozambique
- **Output**
Classrooms, multipurpose classrooms and dormitories are expanded, and educational medical equipment is procured at 12 health personnel training schools in Mozambique



Constructed classroom (CFS* Massinga)
* CFS : Training schools for health personnel; mainly at basic level



Multipurpose classroom built in CFS Pemba



Provided equipment: Upper arm model for injection practice (for repeated intravenous use)

Effects of Project Implementation (Effectiveness, Impact)

This project was conducted with the aim of improving the educational environment and the quality of education at training schools for health personnel in Mozambique by providing infrastructure and equipment for 12 training schools nationwide. This support helped expand the size and number of classrooms and dormitories at training schools, which had suffered from insufficient capacity before the project. Accordingly, the student intake and dormitory capacity were both increased significantly, while constructing multipurpose classrooms and procuring practical educational equipment increased the opportunities for practical lessons and facilitated well-balanced theoretical and practical education. The result of beneficiary survey also shows that 97% of teacher respondents answered that “the practical lesson become more effective by installing multipurpose classrooms” and 98% of them recognized that “practical lessons had improved and become effective thanks to the provision of educational medical equipment”. It can be also said that this project, which allowed students to have experiences closely emulating real medical settings through practical lessons, helped improve the quality of medical education at training schools. The administrative equipment provided, including the PCs, also helped teachers to prepare classes efficiently by reducing the preparation time. It is confirmed that the number of training school graduates and medical personnel nationwide was boosted with the increased number of intake students at training schools. Thus the effectiveness and impact is high.

Relevance

This project is highly relevant to the development needs of Mozambique to expand facilities at training schools to respond to the

insufficiency of the health personnel as well as Mozambique’s development plan, which has focused on the health sector in terms of improving accessibility to and quality of medical services. This project is also consistent with Japan’s ODA policy to Mozambique, which prioritized the health sector. Therefore, its relevance is high.

Efficiency

While the project cost was within the plan (89% of the plan), the project period slightly exceeded the plan (106% of the planned period) due to delays in customs clearance for the procured equipment. Therefore, the project efficiency is fair.

Sustainability

Thanks to support regarding the utilization of equipment provided by JICA experts or volunteers upon project completion, the facilities and equipment are in good condition, except for a few training schools. There are also no major concerns over the technical capacity of teachers. Conversely, there are some problems from institutional perspectives, such as the lack of Operation & Maintenance (O&M) staff and teachers and financial issues due to extensive repair work which will be required in coming years. Therefore, the sustainability of the project effect is fair.

Conclusion, Lessons Learned and Recommendations

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

Lessons learned from this project include the effectiveness of the continued support of JICA experts as well as volunteers; not only during but also after the project implementation, which allowed effective and continued utilization of the procured equipment. Under this project, even

The number of classrooms and students at target training centers

	Number of Classrooms ^{Note 1}		Number of Students			
	Before the project	After the project	Before the project	After the project		
	2007		2007	2011	2012	2013
ICS Nampula	9 (270 students)	13 (390 students)	614	908	967	1,113
CFS Pemba ^{Note2}	4 (120 students)	5 (150 students)	186	298	316	314
ICS Beira	9 (270 students)	13 (390 students)	609	1,196	1,265	1,370
CFS Nhamatanda	2 (60 students)	4 (120 students)	66	196	272	222
CFS Massinga	2 (60 students)	6 ^{Note3} (180 students)	62	145	235	310

Source: Prepared based on responses to questionnaires to each training center

Note 1: Numbers shown in parentheses indicate classroom capacities.

Note 2: CFS Pemba is expected to increase capacity as two classrooms are under construction thanks to aid from a Spanish NGO.

Note 3: Two out of six classrooms at CFS Massinga were built by Canadian International Development Agency (CIDA) aid upon completion of this project.

<Result of the beneficiary survey> Improvement in practical lessons by providing medical equipment

	Considerably Improved	Improved	Unchanged	Worsened
Heads, Deputy Heads, Teachers	50.4%	47.3%	2.3%	0%
Students	57.1%	40.5%	2.4%	0%

<Result of the beneficiary survey> The improvement in medical service quality by graduates after providing educational equipment

	Considerably Improved	Improved	Unchanged	Worsened	N/A
Heads, Deputy Heads, Teachers	27.7%	66.0%	2.1%	0%	4.3%
Students, Graduates	28.6%	61.9%	0%	1.2%	8.3%

after its completion, short-term experts and those involved in the technical assistance project were dispatched, while members of the Japan Overseas Cooperation Volunteers Program (JOCV) also provided support to facilitate understanding of the methods and effectiveness of the equipment for practical lessons.

Recommendations to Ministry of Health (MOH) could include follow-up for further utilization of equipment to establish a maintenance system and examination of the plan and budget required for future O&M. During the ex-post evaluation, though the facilities and equipment were in good condition and fully utilized at most training schools, there were some instances of educational practical equipment being misused.

One of the main factors cited was a lack of awareness on how to effectively use such equipment for practical lessons and improvement in this area is desirable. Furthermore, maintenance has only been performed after trouble occurs. Under current circumstances, this method of maintenance has not resulted in serious problems which may impair the project's sustainability. However, considering future increases in student numbers and deterioration of facilities, there is a need to establish a preventive maintenance system before large-scale maintenance is required. Moreover, it is also necessary to estimate the future budget which will be required, to make a plan and make budget proposals to the MoH based on the same.

Key Points of Evaluation

Follow-up activity of the project completion -Contributing to the continuous and effective use of infrastructure and equipment and boosting users' understanding-

Support from JICA, which provided educational medical equipment to training schools in Mozambique, helped significantly improve education for national health personnel in the country. Medical education requires lessons in line with the curriculum, which includes both theory and practice in a balanced manner. Before the project, training schools focused on theory-based lessons due to the lack of equipment, which meant the students lacked any experience of touching medical equipment in hospitals or clinics prior to field lessons. Accordingly, training schools have a common awareness of issues concerning the quality of medical education. Thanks to the project, which procured abundant and varied equipment, students can take practical lessons under circumstances which resemble the actual circumstances of hospitals or clinics more closely. An interview survey of graduates working at hospitals and of health personnel revealed that the

medical service had improved significantly since the project was implemented.

Furthermore, to ensure effective use of the equipment, continuous support was provided by coordinating activities with short-term experts and those involved in the technical cooperation project as well as JOCV. Thanks to this support, the staff and teachers of the training schools recognized the importance and effectiveness of using such equipment and it helped stabilize the provision of lessons balancing theory and practice. Many projects for procuring medical equipment have encountered problems in terms of inadequate O&M and underuse of the equipment provided. To avoid such cases, it is crucial for recipients to understand the importance and effectiveness of utilizing such equipment as well as related O&M methods. Accordingly, one lesson learned can be that providing continued follow-up activities by utilizing a range of needs-based support may be very effective, as shown by this project.

Kingdom of Morocco

Rural Secondary Education Expansion Project

Helping disseminate secondary education by constructing 98 secondary schools in the rural areas.

External Evaluator: Machi Kaneko, Earth and Human Corporation

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

Project Description

- Loan Approved Amount / Disbursed Amount
8,935 million yen / 6,647 million yen
- Loan agreement: March, 2004
- Terms and conditions: Interest Rate: 0.9%,
Repayment Period: 20 years (Grace Period: 6 years)
Procurement: General Untied
- Final disbursement date : September, 2011
- Executing agency: Ministry of National Education and Vocational Training (MENFP)

Project Objectives

- Overall Goal
To contribute to raising living standards of people in the rural areas of Morocco.
- Project Purpose
To expand secondary education coverage and redress urban-rural and gender disparities in access to education through support to actions in the rural areas of the five target regions.
- Output
Construction of 101 secondary schools and procurement of equipment in the rural areas of the five target regions.



A secondary school located in the steep mountainous areas of Taza Al hocelma Taounate region



Classroom scene at Ibn Baja Secondary School in Doukala Abda region



Dining hall at Issen Secondary School in Souss Massa Draa region



Project Locations (Five target regions)

Effects of Project Implementation (Effectiveness, Impact)

At the time of the appraisal of this project, a lack of a sufficient number of secondary schools was identified as a serious problem in the rural areas of Morocco. In response, this project was determined to construct 101 secondary schools in five regions where most of their rural areas had higher poverty index, focusing on assistance in quantitative expansion. At the time of the ex-post evaluation, 98 secondary schools constructed under the project are in operation where approximately 48,000 students are enrolled. This accounts for 20% of the total number of students (about 240,000) who are enrolled in public secondary schools in the rural areas of the five target regions.

Indicators measuring effectiveness of the project have mostly achieved the planned targets. Namely, the age specific enrollment rates among 12- to 14-year-olds improved and the number of girl students enrolled in secondary schools also increased.

It should be noted that these improvements have been underpinned by the programs of the Ministry of National Education and Vocational Training (Ministère de l'Education Nationale et de la Formation Professionnelle; "MENFP"), which, concurrently with this project, promoted school enrollment through provision of school meals, development of school dormitories, financial assistance for households, etc. On the other hand, results of the beneficiary survey targeting the students indicated that many of the primary school classmates of the responding students gave up secondary schooling because of the reasons including "a long distance to school," "poverty" and "marriage." Further enrichment of support measures is needed in this respect.

Although urban-rural disparities in the enrollment rates remained at the time of ex-post evaluation, the expansion of secondary education in the five target regions has a positive impact on equitable access to secondary schooling (by redressing urban-rural and gender disparities).

In light of the above, the project has mostly produced its effects as intended, and its effectiveness and impact is high.

Relevance

Both at the time of the project's appraisal and the ex-post evaluation, the Government of the Kingdom of Morocco has put broader access to secondary education in rural areas as a key development agenda. The project has been highly consistent with the country's development plan, development needs, as well as Japan's ODA policy. Therefore, its relevance is high.

Efficiency

Of 101 secondary schools planned, 100 sites launched their construction. As of the time of the field study (May 2014), 98 schools were completed and in operation. Although the project cost was within the plan, the implementation period significantly exceeded the plan. Therefore, the efficiency is evaluated to be fair.

Sustainability

Under the supervision of the Regional Education and Training Academy (Académie Régionale de l'Education et de la Formation; "AREF") in each target region, Provincial Delegations and the target schools have developed in partnership an institutional setting for operation and maintenance of the project. No major problems have been thus observed in the institutional, technical and financial aspects of the operation and maintenance. 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.

As for the lessons learned from this project, it was pointed out that the ongoing new ODA loan projects should incorporate the activities to promote broader community understanding and

Table 1 Percentage of the Project's Target Schools among the Rural Secondary Schools (public institutions)

Target Region	Actual		
	Number of the Schools Opened	Number of Secondary Schools in the Target Regions*	Percentage of the Target Schools among the Rural Secondary Schools
a) Marrakech Tensift Al haouz	29	98	30%
b) Taza Al hoceima Taounate	7	74	9%
c) Doukala Abda	11	52	21%
d) Tanger Tetouan	12	53	23%
e) Souss Massa Draa	39	141	28%
Total	98	418	23%

Source: JICA document and Educational Statistics of Morocco 2012/13
* Results indicated in the Table are as of 2012/13.

Table 2 12-to-14-year-old Enrollment Rates (public and private institutions)

National Total and Region (AREF)	Target (Five years after the project completion)	Actual*1,*2	
	2008/09	2008/09	2012/13
National Total (Female)	95.0	70.2 (64.8)	85.1 (80.1)
a) Marrakech Tensift Al haouz	86.3	75.3 (64.7)	84.7 (75.3)
b) Taza Al hoceima Taounate	84.0	52.5 (42.5)	67.0 (58.9)
c) Doukala Abda	89.7	57.4 (51.2)	82.3 (74.3)
d) Tanger Tetouan	87.8	65.5 (63.1)	76.9 (75.6)
e) Souss Massa Draa	88.0	71.7 (61.4)	86.6 (78.3)

Source: MENFP data (provided in February 2014) and Educational Statistics of Morocco 2012/13
*1 Figures in the parentheses show the female enrollment rate

*2 Although two schools were yet constructed and didn't reach the target number of the school at the time of the ex-post evaluation of the project, effectiveness was analyzed based on the latest data available at the time of the evaluation.

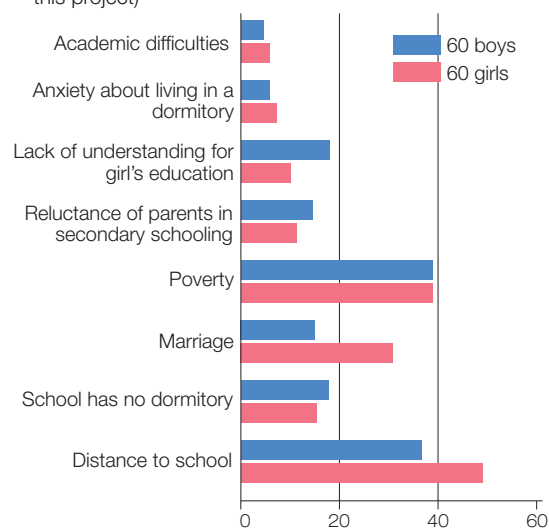
collaboration with the basic infrastructure sector, as well as to take measures for expanding girls' schooling in accordance with local needs through the performance of annual monitoring and evaluation of girls' share among new entrants.

When a project involves construction sites in remote areas with very limited access and steep mountainous areas, as is the case with this project, it may be hampered by unsuccessful tenders and construction delays. It is essential that JICA explain to the executing agency that the latter will need to start preparing for a tender at its detailed design stage by setting out a feasible design, cost estimation and construction period which foresee technical difficulties including geographical conditions, and obtain mutual confirmation on the said matter.

As for the recommendations to the MENFP, it was pointed out

<Beneficiary Survey>

Causes of Non-enrollment in Secondary School in View of Primary School Graduates (Multiple responses) (Survey targets: 60 boy and 60 girl students attending the target secondary schools of this project)



that the progress of work at the two schools under construction should be supervised rigorously in order to open these schools at the earliest possible time. It was proposed that the work supervision at these schools should be facilitated by sharing of information through regular reporting from AREF to MENFP and the submission of progress reports from MENFP to JICA Morocco Office for the entire period till completion. Besides, locating dormitories and upper secondary schools adjacent to lower secondary schools is an effective way to promote enrollment of more girl students at the schools constructed by this project, and discussion of the need for such arrangement is expected to take place. In addition, it is necessary to prepare a uniform nation-wide manual describing the processes and procedures for the maintenance of school facilities and equipment in order to avoid different practices among schools.

Key Point of Evaluation**Identification of achievements and problems in the expansion of secondary education in rural areas from this project**

Although the expansion of secondary education coverage in Morocco has been slower than that of primary education coverage, the net enrollment rate for secondary schools increased from 50.2% in 2000/01 to 84.0% in 2012/13, marking a significant improvement during the past 10 years. However, urban-rural disparities remain, as the net enrollment rate for secondary schools in 2012/13 was 80.7% in urban areas while 30.6% in rural areas.

Based on the above educational statistical data and other information, the ex-post evaluation conducted a field study using interviews with the relevant AREF personnel in all of the five target regions and facility survey by questionnaires to each school. The study team visited 13 of the 98 schools constructed by the project to confirm the operation and maintenance of facilities and the learning environment of students, and also conducted interviews with students, teachers, and parent associations.

The results showed that the secondary schools constructed by

this project were playing very important roles in helping the boys and girls in the vicinities enter secondary schools. In addition, secondary schools in remote areas far away from major cities and those in mountainous areas accessed via steep mountain paths also attracted many students. School directors and students revealed that many students would have been unable to obtain secondary education if the project had not provided the schools.

Although nation-wide educational statistics shows that major problems remain in the expansion of secondary education coverage in rural areas, the results of this ex-post evaluation confirmed the steady advancement of secondary education in rural areas. While the secondary schools constructed by this project are supporting the early steps in the expansion of secondary education coverage in rural areas, they at the same time also help us identify the problems for the future, such as what additional facilities and enrollment promotion measures are needed for the expansion of secondary education coverage including that for girls. The experience in this project is expected to be valuable for the expansion of secondary education in the rural areas of Morocco.